



PAUL R. LEPAGE  
GOVERNOR

STATE OF MAINE  
MAINE DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY  
BOARD OF PESTICIDES CONTROL  
28 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0028

WALTER E. WHITCOMB  
COMMISSIONER  
HENRY S. JENNINGS  
DIRECTOR

**BOARD OF PESTICIDES CONTROL**

**May 13, 2016**

**AMHI Complex, 32 Blossom Lane, Marquardt Building, Room 118, Augusta, Maine**

**NOTE NEW LOCATION**

**AGENDA**

**8:30 AM**

1. Introductions of Board and Staff

2. Minutes of the March 25, 2016 Board Meeting

Presentation By: Henry Jennings  
Director

Action Needed: Amend and/or Approve

3. Overview of Mosquito-borne Diseases and Monitoring in Maine

The Maine Center for Disease Control and Prevention (Maine CDC) coordinates state activities around preventing vector-borne diseases. As part of its responsibilities, the CDC coordinates mosquito and disease monitoring in Maine. The presence of mosquito-borne diseases and the species of vector mosquitoes present in Maine have been on the rise in recent years. Sara Robinson of the Maine CDC will provide an overview of the trends and the state's monitoring program.

Presentation By: Sara Robinson, MPH  
Epidemiologist, Maine Center for Disease Control and Prevention

Action Needed: None – Informational Only

4. Review and Discussion of Board Homeowner Education Efforts and Available Funding

Over the last several months, the Board discussed various ideas and approaches for improving education of homeowners on the use of Integrated Pest Management and the proper use of pesticides. The Board subsequently directed the staff to make homeowner education a priority for 2016. The staff will provide an update to the Board about recent activities and discuss additional ideas and available funding.

Action Needed: Determine next steps

5. Consideration of the EPA Special Local Need [FIFRA Section 24(c)] request to extend the use of Bravo ZN, EPA Reg. 50534-201 and the State Supplemental Special Local Need (SLN) [FIFRA Section 24(c)] request to extend the use of Bravo ZN, EPA Reg. 50534-201-100 for control of late blight (*Phytophthora infestans*) in long-season potatoes

The Special Local Needs (24c) request to extend the use of Bravo ZN (EPA Reg. No. 50534-204-100) limits use to long-season potatoes during epidemics of severe late blight (*Phytophthora infestans*). The request is in response to high levels of late blight present in recent growing seasons in Maine, according to Steve Johnson, Ph.D., Crops Specialist, at the University of Maine Cooperative Extension. The continued use of this product at the higher rate will permit growers the needed flexibility to respond more effectively during unique growing conditions that promote late blight. Both the primary SLN and the state supplemental SLN for Bravo ZN are hereby submitted for the Board's approval.

Presentation By: Mary Tomlinson  
Pesticide Registrar

Action Needed: Approve/Disapprove 24(c) Registration Requests

6. Consideration of the EPA Special Local Need [FIFRA Section 24(c)] request for the use of Omega 500F Fungicide, EPA Reg. 71512-1 and the State Supplemental Special Local Need (SLN) [FIFRA Section 24(c)] request to extend the use of Omega 500F Agricultural Fungicide, EPA Reg. 71512-1-100 as an in-furrow, banded spray on potatoes at planting for control of powdery mildew scab.

The Special Local Needs (24c) request for the use of Omega 500 F Agricultural Fungicide (EPA Reg. No. 71512-1-100) would allow the use of the product as an in-furrow, banded application in potatoes at planting for control of powdery mildew scab, *Spongospora subterranean* f. sp. *Subterranean*, which can render affected crops unsaleable and transmit the potato mop top virus. Steve Johnson, PhD, from the University of Maine Cooperative Extension has submitted a letter of support. Both the primary SLN and the state supplemental SLN for Omega 500F Agricultural Fungicide are hereby submitted for the Board's approval.

Presentation By: Mary Tomlinson  
Pesticide Registrar

Action Needed: Approve/Disapprove 24(c) Registration Requests

7. Consideration of a Consent Agreement with Moark of Turner, ME

On June 3, 1998, the Board amended its Enforcement Protocol to authorize staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine to resolve the matter. This case involves the use of a product inconsistent with the product label.

Presentation By: Raymond Connors  
Manager of Compliance

Action Needed: Approve/Disapprove the Consent Agreement Negotiated by Staff

8. Consideration of a Consent Agreement with Kendall Cooper of Buckfield, ME

On June 3, 1998, the Board amended its Enforcement Protocol to authorize staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine to resolve the matter. This case involves the purchase of restricted-use pesticides by an unlicensed person.

Presentation By: Raymond Connors  
Manager of Compliance

Action Needed: Approve/Disapprove the Consent Agreement Negotiated by Staff

9. Consideration of a Consent Agreement with Orkin Exterminating Company Inc. of Portland, ME

On June 3, 1998, the Board amended its Enforcement Protocol to authorize staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine to resolve the matter. This case involves an unauthorized pesticide application.

Presentation By: Raymond Connors  
Manager of Compliance

Action Needed: Approve/Disapprove the Consent Agreement Negotiated by Staff

10. Consideration of a Consent Agreement with Sports Fields Inc. of Monmouth, ME

On June 3, 1998, the Board amended its Enforcement Protocol to authorize staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine to resolve the matter. This case involves pesticide applications to a school's fields without following several requirements of Chapter 27.

Presentation By: Raymond Connors  
Manager of Compliance

Action Needed: Approve/Disapprove the Consent Agreement Negotiated by Staff

11. Consideration of a Consent Agreement with Black Bear Lawn Care of Orono, ME

On June 3, 1998, the Board amended its Enforcement Protocol to authorize staff to work with the Attorney General and negotiate consent agreements in advance on matters not involving substantial threats to the environment or public health. This procedure was designed for cases where there is no dispute of material facts or law, and the violator admits to the violation and acknowledges a willingness to pay a fine to resolve the matter. This case involves a commercial pesticide application by a company with no licensed applicators.

Presentation By: Raymond Connors  
Manager of Compliance

Action Needed: Approve/Disapprove the Consent Agreement Negotiated by Staff

12. Other Old or New Business

- a. Letter from Board to the Joint Standing Committee on Appropriations and Financial Affairs
- b. South Portland proposed Pesticide Ordinance
- c. Harpswell Outdoor Pesticides Control and Fertilizer Use Ordinance
- d. Email from Nancy Oden
- e. Other?

13. Schedule of Future Meetings

July 1, and August 19, 2016 are tentative Board meeting dates. The August 19 meeting is tentatively a field trip. The Board will decide whether to change and/or add dates.

Adjustments and/or Additional Dates?

14. Adjourn

## NOTES

- The Board Meeting Agenda and most supporting documents are posted one week before the meeting on the Board website at [www.thinkfirstspraylast.org](http://www.thinkfirstspraylast.org).
- Any person wishing to receive notices and agendas for meetings of the Board, Medical Advisory Committee, or Environmental Risk Advisory Committee must submit a request in writing to the Board's office. Any person with technical expertise who would like to volunteer for service on either committee is invited to submit their resume for future consideration.
- On November 16, 2007, the Board adopted the following policy for submission and distribution of comments and information when conducting routine business (product registration, variances, enforcement actions, etc.):
  - *For regular, non-rulemaking business*, the Board will accept pesticide-related letters, reports, and articles. Reports and articles must be from peer-reviewed journals. E-mail, hard copy, or fax should be sent to the attention of Anne Chamberlain, at the Board's office or [anne.chamberlain@maine.gov](mailto:anne.chamberlain@maine.gov). In order for the Board to receive this information in time for distribution and consideration at its next meeting, all communications must be received by 8:00 AM, three days prior to the Board meeting date (e.g., if the meeting is on a Friday, the deadline would be Tuesday at 8:00 AM). Any information received after the deadline will be held over for the next meeting.
- During rulemaking, when proposing new or amending old regulations, the Board is subject to the requirements of the APA (Administrative Procedures Act), and comments must be taken according to the rules established by the Legislature.



STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY  
BOARD OF PESTICIDES CONTROL  
28 STATE HOUSE STATION  
AUGUSTA, MAINE 04333

PAUL R. LEPAGE  
GOVERNOR

To: Board of Pesticides Control Members  
From: Mary Tomlinson, Pesticides Registrar/Water Quality Specialist  
RE: EPA Special Local Need (SLN) [FIFRA, Section 24(c)] request to extend the use of Bravo ZN, EPA Reg. No. 50534-201, for control of late blight (*Phytophthora infestans*) in long-season potatoes

State Supplemental Special Local Need (SLN) [FIFRA, Section 24(c)] request to extend the use of Bravo ZN, EPA Reg. No. 50534-201-100, for control of late blight (*Phytophthora infestans*) in long-season

Date: May 4, 2016

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Enclosed is the above referenced Special Local Need (SLN) [FIFRA, Section 24(c)] application and supporting documents for your consideration.

The Special Local Needs (24c) request to extend the use of Bravo ZN (EPA Reg. No. 50534-204-100) limits use to long-season potatoes during epidemics of severe late blight (*Phytophthora infestans*). The request is in response to high levels of late blight present in recent growing seasons in Maine, according to Steve Johnson, Ph.D., Crops Specialist, at the University of Maine Cooperative Extension. The continued use of this product at the higher rate will permit growers the needed flexibility to respond more effectively during unique growing conditions that promote late blight. When the initial SLN was approved in 2010, the Board requested a report from Dr. Johnson. This report of January 26, 2011 is again included for your review.

EPA only permits issuance of an SLN on a primary product registration; however, states are permitted to issue a state supplemental SLN for a supplementally distributed product, assuming the basic registrant has approved the distributor's request for an SLN and the state has issued an SLN for the primary product. GB Biosciences supports Syngenta Crop Protection, LLC's request for a supplemental SLN, for use of Bravo ZN (EPA Reg. No. 50534-204-100), on long-season potatoes during epidemics of severe late blight (*Phytophthora infestans*).

Please review the following documents and let me know if you have any questions.

- FIFRA, Section 24(c) application
- Letter of request from GB Biosciences Corporation / Syngenta Crop Protection, LLC
- Letters of request from Steve Johnson, Crops Specialist, Maine Cooperative Extension
- Bravo ZN ME-100001 report S Johnson 01-25-2011
- Bravo ZN ME-100001 draft Maine SLN label (GB Biosciences Corp.)
- Bravo ZN ME-100001b draft Maine SLN label (Syngenta Crop Protection, LLC)
- Bravo ZN Section 3 container label
- Bravo ZN SDS

Please review these materials and let me know if you have any questions.

HENRY JENNINGS, DIRECTOR  
90 BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-2731  
WWW.THINKFIRSTSPRAYLAST.ORG

	United States Environmental Protection Agency Office of Pesticide Programs, Registration Division (7505C) Washington, DC 20460		<b>For State Use Only</b>
			Registration No. Assigned ME-100001
			Date Registration Issued
<b>Application for/Notification of State Registration                  of a Pesticide To Meet a Special Local Need                  (Pursuant to section 24(c) of the Federal Insecticide,                  Fungicide, and Rodenticide Act as Amended)</b>			
<b>1. Name and Address of Applicant for Registration</b> GB Biosciences Corporation P. O. Box 18300 Greensboro, NC 27419-8300		<b>2. Product is (Check one)</b> EPA-Registered <input checked="" type="checkbox"/> New (not EPA-registered) <input type="checkbox"/> <input type="checkbox"/> Attach EPA Form 8570-4, Confidential Statement of Formula for new products.	
		EPA Registration Number 50534-204	EPA Company Number 50534
<b>3. Active Ingredient(s) in Product</b> Chlorothalonil			
<b>4. Product Name</b> Bravo Zn®		<b>5. If this is a food/feed use, a tolerance or other residue clearance is required. Cite appropriate regulations in 40 CFR Part 180, 185, and/or 186. 40 CFR 180.275</b>	
<b>6. Type of Registration (Give details in Item 13 or on a separate page, properly identified and attached to this form):</b> <input type="checkbox"/> a. To permit use of a new product. <input checked="" type="checkbox"/> b. To amend EPA registrations for one or more of the following purposes:		<b>7. Nature of Special Local Need (check one)</b> <input type="checkbox"/> There is no pesticide product registered by EPA for such use. <input checked="" type="checkbox"/> There is no EPA-registered pesticide product which, under the conditions of use within the State, would be as safe and/or as efficacious for such use within the terms and conditions of EPA registration. <input type="checkbox"/> As appropriate EPA-registered pesticide product is not available.	
<input type="checkbox"/> (1) To permit use on additional crops or animals. <input type="checkbox"/> (2) To permit use at additional sites. <input type="checkbox"/> (3) To permit use against additional pests. <input type="checkbox"/> (4) To permit use of additional application techniques or equipment. <input type="checkbox"/> (5) To permit use at different application rates. <input checked="" type="checkbox"/> (6) Other (specify below)		<b>8. If this registration is an amendment to an EPA-registered product, is it for a "new use" as defined in 40 CFR 152.3?</b> <input type="checkbox"/> Yes (discuss in Item 13 below) <input checked="" type="checkbox"/> No	
<b>10. Has FIFRA section 24(c) registration for this use of the product ever, by another State, been (check appropriate box(es), if known):</b>  <input checked="" type="checkbox"/> Sought <input checked="" type="checkbox"/> Issued <input type="checkbox"/> Denied <input type="checkbox"/> Revoked  If any of the above are checked, list States in Item 13 below.  <input type="checkbox"/> No FIFRA section 24(c) Action		<b>9. Has an EPA Registration or Experimental Use Permit for this chemical even been (check applicable box(es), if known):</b> <input checked="" type="checkbox"/> Sought <input checked="" type="checkbox"/> Issued <input type="checkbox"/> Denied <input type="checkbox"/> Cancelled <input type="checkbox"/> Suspended <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Experimental Use Permit <input type="checkbox"/> No Previous Permit Action	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		<b>11. Endangered Species Act: (Give details in Item 13 or on a separate page, properly identified and attached to this form.)</b>  Identify the counties where this pesticide will be used. If Statewide, indicate "all." <b>ALL</b> Provide a list of Federally protected endangered/threatened species which occur in the areas of proposed use. "all"	
Signature of Applicant or Authorized Representative  <i>Pat Alvinen</i>		<b>12. Indicate use status of Special Local Need, i.e., planned dates of use:</b> From: March, 2016 To: December 31, 2021	
Title Regulatory Manager		<b>13. Comments (attach additional sheet, if needed)</b> <b>Comments for Item 6.b.(6):</b> Renewal of existing ME-100001  <b>Comments Item 10:</b> Similar SLN's exist in MI, MN, ND, NE, WI	
Telephone Number 336-632-2494		Date 03/18/2016	
<b>Determination by State Agency</b> This registration is for a Special Local Need and is being issued in accordance with section 24(c) of FIFRA, as amended. To the best of our knowledge, the information above is correct, except as noted in "Comments" below or in attachments			
Name, Title, and Address of State Agency Official Mary Tomlinson Board of Pesticides Control 28 State House Station Augusta, ME 04333		Comments (by State Agency Only) Expires December 21, 2021	
Title Pesticides Registrar/Water Quality Specialist		Received by EPA	
Telephone Number 207-287-7544		Date May 4, 2016	

# GB BIOSCIENCES<sup>TM</sup> CORPORATION

PO Box 18300  
GREENSBORO, NC 27419-8300  
TELEPHONE (336) 632-7591  
FAX (336) 632-2884

May 2, 2016

Ms. Mary E. Tomlinson  
Pesticides Registrar & Water Quality Specialist  
Board of Pesticides Control  
Maine Department of Agriculture, Conservation and Forestry  
28 State House Station  
Augusta, ME 04333-0028

Subject: Bravo Zn® (EPA Reg. No. 50534-204)  
Active Ingredient: Chlorothalonil  
Request to Renew ME-100001 for Control of Late Blight on Long-Season Potatoes

Dear Ms. Tomlinson:

GB Biosciences Corporation, as the primary registrant of Bravo Zn, respectfully requests a five year extension on SLN ME-100001 for control of late blight on long-season potatoes to Syngenta Crop Protection, LLC as the supplemental distributor registrant. GB Biosciences does not distribute or sell Bravo Zn in the marketplace. Bravo Zn is only distributed in the marketplace under a supplemental distributor registration to Syngenta Crop Protection, LLC. Dr. Steven B. Johnson of The University of Maine Cooperative Extension has written a support letter stating that the need still exists.

Enclosed in support of this submission are:

- Draft SLN Label for GB Biosciences
- Draft SLN Label for Syngenta Crop Protection
- EPA SLN Application Form 8570-25
- Support letter from Dr. Steven B. Johnson of The University of Maine Cooperative Extension
- Federal Label for Bravo Zn
- SDS for Bravo Zn

If you have any questions please do not hesitate to call me at 336-632-2494 or email me at [pat.dinnen@syngenta.com](mailto:pat.dinnen@syngenta.com).

Sincerely,



Pat Dinnen  
Regulatory Manager

Enclosures



*Potato Program*

59 Houlton Road, Presque Isle, ME 04769, (207) 554-4373; Fax (207) 554-4373

May 4, 2016

Mary E. Tomlinson  
([Mary.E.Tomlinson@maine.gov](mailto:Mary.E.Tomlinson@maine.gov))  
Pesticide Registrar  
Maine Board of Pesticides Control / 28 SHS /  
Augusta, ME 04333

Dear Mary:

I am supporting a 24c SLN label request to the State of Maine for Bravo® Zn (EPA Reg. Number 50534-204-100) to increase the total allowable active ingredient per acre from 12.0 lb. per year to 16.0 pounds per year. (<https://extension.umaine.edu/potatoes/wp-content/uploads/sites/97/2015/05/Fungicides-15.pdf>) (This would mean raising the allowable use of Bravo® Zn from 21 pints per acre to 30½ pints per acre). I would like to see this limited to “Control of Late Blight (*Phytophthora infestans*) for Long-Season Potatoes.” Special local needs (24c) labels for increased total allowable chlorothalonil rates exist in other states (MI, MN, ND, NE, WI).

The need for increased allowable chlorothalonil rates is real. The high levels of late blight present in previous growing seasons in Maine have been very trying. Many growers with long-season varieties ran out of chlorothalonil limits and EDBC materials were not available. I expect Maine growers to only use the increased limits under severe late blight epidemics.

This SLN label would allow the applicators the flexibility to deal with our unique environment. Please feel free to contact me if have questions or require further information.

Sincerely,

A handwritten signature in black ink that reads 'Steven B. Johnson'.

Steven B. Johnson, Ph.D.  
Crops Specialist

<https://extension.umaine.edu/potatoes/>

The University of Maine and the U.S. Department of Agriculture cooperating.  
Cooperative Extension provides equal opportunities in programs and employment.  
*A Member of the University of Maine System*



*Potato Program*

59 Houlton Road, Presque Isle, ME 04769, (207) 554-4373; Fax (207) 554-4373

February 2, 2016

Jeff Zelna ([jeff.zelna@syngenta.com](mailto:jeff.zelna@syngenta.com))

Technical Support Representative

Syngenta Crop Protection

4598 Reliant Rd.

Jamesville, New York 13078

Dear Jeff:

I am repeating the request I made December 3, 2009 as I am told the previously granted request has expired. I am requesting your company to submit a 24c SLN label request to the State of Maine for Bravo® Zn (EPA Reg. Number 50534-204-100) to increase the total allowable active ingredient per acre from 12.0 lb. per year to 16.0 pounds per year. (<http://umaine.edu/potatoes/files/2015/05/Fungicides-15.pdf>) (This would mean raising the allowable use of Bravo® Zn from 21 pints per acre to 30½ pints per acre). I would like to see this limited to “Control of Late Blight (*Phytophthora infestans*) for Long-Season Potatoes.” Special local needs (24c) labels for increased total allowable chlorothalonil rates existed in other states (ME, MI, MN, ND, NE, WI) and I was hoping that your company would support a similar label for Maine. I have enclosed a sample mock up a potential label.

The need for increased allowable chlorothalonil rates is real. The high levels of late blight present in recent growing seasons in Maine have been very trying. Many growers with long-season varieties ran out of chlorothalonil limits and EDBC materials were not available. I expect Maine growers to only use the increased limits under severe late blight epidemics.

This SLN label would allow the applicators the flexibility to deal with our unique environment. The Pesticide Registrar requires a letter requesting a 24 (c) registration and a completed application (8570-25). The contact information is:

[www.umaine.edu/umext/potatoprogram](http://www.umaine.edu/umext/potatoprogram)    [www.umext.maine.edu](http://www.umext.maine.edu)

The University of Maine and the U.S. Department of Agriculture cooperating.  
Cooperative Extension provides equal opportunities in programs and employment.

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*Potato Program*

59 Houlton Road, Presque Isle, ME 04769, (207) 554-4373; Fax (207) 554-4373

Mary Tomlinson (mary.e.tomlinson@maine.gov)

Pesticide Registrar

Maine Board of Pesticides Control

28 State House Station

Augusta, ME 04333-0028

FAX: (207) 287-7548

I urge you to apply to the Maine Board of Pesticides Control at the above address. Please feel free to contact me if have questions or require further information.

Sincerely,

A handwritten signature in black ink that reads 'Steven B. Johnson'. The signature is written in a cursive style and is underlined.

Steven B. Johnson, Ph.D.

Crops Specialist

[www.umaine.edu/umext/potatoprogram](http://www.umaine.edu/umext/potatoprogram) [www.umext.maine.edu](http://www.umext.maine.edu)

The University of Maine and the U.S. Department of Agriculture cooperating.  
Cooperative Extension provides equal opportunities in programs and employment.

*A Member of the University of Maine System*



*Potato Program*  
57 Houlton Road, Presque Isle, ME 04769, (207) 764-3361; Fax (207) 764-3362

January 26, 2011

Mary Tomlinson (mary.e.tomlinson@maine.gov)  
Pesticide Registrar  
Maine Board of Pesticides Control  
28 State House Station  
Augusta, ME 04333-0028

Dear Mary:

I supported Syngenta's request for a 24c SLN label request to the State of Maine for Bravo® Zn (EPA Reg. Number 50534-204-100) to increase the total allowable active ingredient per acre from 12.0 lb. per year to 16.0 pounds per year. On April 16, 2010, the Board of Pesticides Control met and the request was moved, seconded, and passed unanimously ([http://www.maine.gov/agriculture/pesticides/pdf/board/agenda\\_documents/may10/Apr10Min.pdf](http://www.maine.gov/agriculture/pesticides/pdf/board/agenda_documents/may10/Apr10Min.pdf)).

The request was to increase the total allowable active ingredient per acre from 12.0 lb. per year to 16.0 pounds per year. This is the equivalent increasing the current 21.5 BravoZn pints per acre per year to 28.7 BravoZn pints per acre per year.

I gleaned Bravo as well as BravoZn application data from the Potato IPM database. This database consists, among other data, of a record of the pesticide applications made by the grower.

From the database, 10 growers applied Bravo Zn. The pints per acre per year were: 4.25, 4, 5, 8.5, 9, 9, 9.75, 12.1 2.5, 13.



*Potato Program*  
57 Houlton Road, Presque Isle, ME 04769, (207) 764-3361; Fax (207) 764-3362

From the database, 31 growers applied Bravo of any formulation. The pints per acre per year were: 1.5, 1.5, 2, 2.5, 3, 4, 4, 4, 4.25, 6, 6.6, 6.75, 7, 7.5, 8, 8.2, 8.5, 8.5, 8.625, 9, 9, 9, 9.25, 10, 10, 10.75, 11.25, 12, 13, 14, 19.

I feel this is a good picture of the practices of the Maine potato industry.

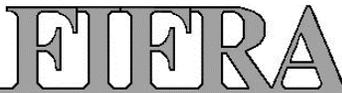
As I recall mentioning at the MBPC meeting, growers do not like putting on pesticides and I feel strongly that they do not put them on unnecessarily. We dedicate a good deal of effort to forecasting the application timings in order to reduce the impact of fungicides in the environment. We had a very dry summer and for the first time on record, I told growers to put the sprayers away. I think most, if not all, did just that. Not one of the growers in our database even put on the 21.5 pints per acre per year. The mean application was 7.7 pints of Bravo per acre. Since no grower reached the limit allowed on the federal label, no grower actually applied the additional amount allowed by the 24c SLN. I am pleased that not only was the additional material not needed in 2010, it was not applied. I think this speaks volumes of the Maine potato industry. I appreciate the MBPC approving the request to “put another tool in the tool belt” of a half a billion dollar industry in Maine.

After the approval, board members also requested a report back on the use of the product and any water quality sampling results. I did none nor do I have water sampling data but I hope this letter suffices for the requested report back on the use of the product. If you have any further questions or require additional information, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Steve B. Johnson'. The signature is written in a cursive style and is underlined.

Crops Specialist



## Section 24(c) Special Local Need Label

FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MAINE

**Bravo® Zn**  
For Control of Late Blight (*Phytophthora infestans*) for Long-Season Potatoes

EPA Reg. No. 50534-204  
EPA SLN No. ME-100001

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING/AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

This label expires and must not be distributed or used in accordance with this SLN registration after  
December 31, 2021

### DIRECTIONS FOR USE

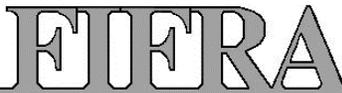
- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This label must be in the possession of the user at the time of application.
- Follow all applicable directions, restrictions, Worker Protection Standard requirements, and precautions on the EPA-registered label.

Crop	Disease (Pathogen)	Pints Product/A (lb ai/A)	Application Directions
Potato (Long-season varieties)	Late Blight ( <i>Phytophthora infestans</i> )	1 1/2 to 2 1/8 (0.75 to 1.125)	<p>Begin applying at 5 to 10 day intervals when Late Blight forecasting measures 18 disease severity values (DSV).</p> <p>Increase water spray volume as canopy density increases. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe.</p> <p>Bravo Zn may be applied through sprinkler irrigation equipment (solid set, portable wheel move, motorized lateral move or center pivot systems only).</p> <p>Do not exceed a 10 day interval between applications when using chemigation. See <i>Application and Calibration Techniques for Chemigation</i> on Bravo Zn label</p>

**Specific Use Restrictions:** Do not apply more than 30½ pints Bravo Zn (16 lb ai) per acre on long-season varieties of potato during each growing season. Do not apply within 7 days of harvest.

24(c) Registrant:  
GB Biosciences Corporation  
P. O. Box 18300  
Greensboro, NC 27419-8300

Label Code: ME0204015BA0316



## Section 24(c) Special Local Need Label

FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MAINE

**Bravo® Zn**  
For Control of Late Blight (*Phytophthora infestans*) for Long-Season Potatoes

EPA Reg. No. 50534-204-100  
EPA SLN No. ME-100001

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING/AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

This label expires and must not be distributed or used in accordance with this SLN registration after  
December 31, 2021

### DIRECTIONS FOR USE

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This label must be in the possession of the user at the time of application.
- Follow all applicable directions, restrictions, Worker Protection Standard requirements, and precautions on the EPA-registered label.

Crop	Disease (Pathogen)	Pints Product/A (lb ai/A)	Application Directions
Potato (Long-season varieties)	Late Blight ( <i>Phytophthora infestans</i> )	1 1/2 to 2 1/8 (0.75 to 1.125)	<p>Begin applying at 5 to 10 day intervals when Late Blight forecasting measures 18 disease severity values (DSV).</p> <p>Increase water spray volume as canopy density increases. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe.</p> <p>Bravo Zn may be applied through sprinkler irrigation equipment (solid set, portable wheel move, motorized lateral move or center pivot systems only).</p> <p>Do not exceed a 10 day interval between applications when using chemigation. See <i>Application and Calibration Techniques for Chemigation</i> on Bravo Zn label</p>

**Specific Use Restrictions:** Do not apply more than 30½ pints Bravo Zn (16 lb ai) per acre on long-season varieties of potato during each growing season. Do not apply within 7 days of harvest.

24(c) Sub-Registrant:  
Syngenta Crop Protection, LLC  
P. O. Box 18300  
Greensboro, NC 27419-8300

Label Code: ME0204015BA0316

GROUP M5 FUNGICIDE



PULL HERE TO OPEN ►



# Bravo<sup>®</sup>ZN

syngenta<sup>®</sup>

## Agricultural Fungicide

*Active Ingredient:*

Chlorothalonil (tetrachloroisophthalonitrile) . . . . . 38.5%

*Other Ingredients:* . . . . . 61.5%

*Total:* . . . . . 100.0%

Bravo Zn is formulated as a suspension concentrate (SC).

Contains 4.17 pounds chlorothalonil per gallon

**KEEP OUT OF REACH OF CHILDREN.**

### WARNING/AVISO

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See additional precautionary statements and directions for use inside booklet.

**EPA Reg. No. 50534-204-100**

**EPA Est. 50534-TX-001<sup>GBY</sup>**

**EPA Est. 070989-AR-001<sup>OMB</sup>**

(Superscript is first three letters of batch code on container)

**SCP 50534-204A-L1H 0814  
4044588**

**2.5 gallons**  
Net Contents

TM

<b>FIRST AID</b>	
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN</b>	
Persons suffering with temporary allergic skin reactions may respond to treatment with oral antihistamines and topical or oral steroids.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b>	
For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b>	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### WARNING/AVISO

Harmful if absorbed through skin. Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as natural rubber, Selection Category A). Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### Personal Protective Equipment (PPE)

Some materials that are chemical resistant to this product are made of any waterproof material. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

*continued...*

## **PRECAUTIONARY STATEMENTS (*continued*)**

### **Mixers, Loaders, Applicators and all other handlers must wear:**

- long-sleeved shirt and long pants
- chemical-resistant gloves made of any waterproof material
- shoes plus socks

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **Engineering Controls**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### **User Safety Recommendations**

#### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### **Environmental Hazards**

This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

### **Groundwater Advisory**

Chlorothalonil is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### **Surface Water Advisory**

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

## **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Bravo Zn should be used only in accordance with recommendations on this label or in separately published SYNGENTA supplemental labeling recommendations for this product.

Do not apply this product in a way that will contact workers, other persons or pets, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- coveralls
- chemical-resistant gloves made of any waterproof material
- shoes plus socks
- protective eyewear

Special Eye Irritation Provisions: This product is a severe eye irritant. Although the restricted-entry interval expires after 12 hours, for the next 6.5 days entry is permitted only when the following safety measures are provided:

- (1) At least one container designed specifically for flushing eyes must be available in operating condition at the WPS-required decontamination site intended for workers entering the treated area.
- (2) Workers must be informed, in a manner they can understand:
  - that residues in the treated area may be highly irritating to their eyes
  - that they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes
  - that if they do get residues in their eyes, they should immediately flush their eyes using the eyeflush container that is located at the decontamination site, or using other readily available clean water
  - how to operate the eyeflush container

### PRODUCT INFORMATION

Bravo Zn can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control.

#### Resistance Management

**GROUP M5 FUNGICIDE**

Bravo Zn is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases.

Bravo Zn is recommended for use in programs which are compatible with the principles of Integrated Pest Management (IPM), which include the use of disease resistant crop varieties, cultural practices, pest scouting and disease forecasting systems which reduce unnecessary applications of pesticides.

Bravo Zn is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides which are at risk from disease resistance exhibit a single-site model of fungicidal action. Bravo Zn, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of Bravo Zn in programs which seek to minimize the occurrence of disease resistance to other fungicides.

### **Use Precautions and Restrictions**

Do not use on greenhouse-grown crops.

This product must not be applied within 150 feet for aerial applications or 25 feet for ground applications of marine/estuarine water bodies unless there is an untreated buffer area of that width between the area to be treated and the water body.

Do not combine Bravo Zn in the spray tank with pesticides, adjuvants, surfactants or fertilizers, unless your prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use. Do not combine Bravo Zn with Dipel®, Latron B-1956® or Latron AG-98® as phytotoxicity may result from the combination when applied to some crops on this label.

### **Spray Drift Precautions**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off target drift movement from aerial applications to agricultural field crops. These requirements do not apply to conifer applications, public health uses or applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wing-span or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information**.

### **Aerial Drift Reduction Advisory Information**

[This section is advisory in nature and does not supersede the mandatory label requirements.]

#### **Information on Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable conditions (See **Wind, Temperature**).

### **Controlling Droplet Size**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting the nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift potential.

### **Boom Length**

For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

### **Application Height**

Applications should not be made at a height greater than 10 ft above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### **Swath Adjustment**

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

### **Wind**

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### **Temperature and Humidity**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### **Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### **Sensitive Areas**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

## **APPLICATION**

**Note:** Slowly invert container several times to assure uniform mixture.

Dosage rates on this label indicate pints of Bravo Zn per acre, unless otherwise stated. Under conditions favoring disease development, the high rate specified and shortest application interval should be used.

The required amount of Bravo Zn should be added slowly into the spray tank during filling. With concentrate sprays, premix the required amount of Bravo Zn in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations.

Apply Bravo Zn in sufficient water to obtain adequate coverage of foliage. Gallonage to be used will vary with crop and amount of plant growth.

For field and row crops, spray volume usually will range from 20 to 150 gallons per acre for dilute sprays and 5 to 10 gallons per acre for concentrate ground sprays and aircraft applications.

For tree and orchard crops, apply Bravo Zn in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. For fruit and nut bearing crops, the maximum volume is 300 gallons per acre unless indicated otherwise in the specific use directions.

### **Application and Calibration Techniques for Sprinkler Irrigation - Chemigation**

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set and portable (wheel move, side roll, end tow, or hand move) irrigation system(s). Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not apply this product through irrigation systems connected to a public water system. "Public water system" means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, should the need arise.

The irrigation water pipeline must be fitted with a functional, automatic, quick-closing check valve to prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low pressure drain, located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source.

**Always inject Bravo Zn into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.**

Pesticide injection equipment must be fitted with a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system, so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. Do not apply when wind speed favors drift beyond the area intended for treatment.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Bravo Zn may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place, then refer to the appropriate directions provided for each type.

#### **A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment**

For injection of pesticides, these continuously moving systems must use a positive displacement injection pump, of either diaphragm or piston type, constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock and capable of injection at pressures approximately 2-3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Thoroughly mix recommended amount of Bravo Zn for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until Bravo Zn has been cleared from last sprinkler head.

**B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment**

With stationary systems, an effectively designed in-line venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides; however, a positive-displacement pump can also be used.

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of Bravo Zn for acreage to be covered with water so that the total mixture of Bravo Zn plus water in the injection tank is equal to the quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. Agitation is recommended. Bravo Zn can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until Bravo Zn has been cleared from last sprinkler head.

**DIRECTIONS FOR APPLICATION**

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Bean (Snap)	Rust ( <i>Uromyces appendiculatus</i> )	2 to 4 <sup>1</sup> / <sub>4</sub> (1.0 to 2.25)	Use in sufficient water to obtain adequate coverage. Begin applications during early bloom stage or when disease first threatens and repeat as necessary (the minimum retreatment interval is 7 days) to maintain control. Apply by ground, air or chemigation.
	Botrytis blight (gray mold) ( <i>B. cinerea</i> )	4 <sup>1</sup> / <sub>4</sub> (2.25)	

**Specific Use Restrictions:**

- Do not apply more than 17 pints of Bravo Zn (9.0 lb ai) per acre during each growing season.
- Do not apply within 7 days of harvest.

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CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
<b>Beans (Dry)</b> (except soybeans) bean, adzuki bean, broad bean, dry bean, lablab bean, navy bean, kidney bean, lima bean, moth bean, mung bean, pink bean, pinto bean, tepary bean, urd bean, yardlong catjang chickpea (garbanzo) cowpea lupin, grain lupin bean, rice bean, runner bean, jackbean pea, blackeyed pea, southern	Anthracnose ( <i>Colletotrichum lindemuthianum</i> )  Ascochyta blight ( <i>A. phaseolorum</i> )  Cercospora leaf blotch ( <i>C. cruenta</i> )  Downy mildew ( <i>Phytophthora nicotianae</i> )  Rust ( <i>Uromyces appendiculatus</i> )	2 to 2 <sup>3</sup> / <sub>4</sub> (1.0 to 1.5)	Use in sufficient water to obtain adequate coverage. Begin applications at first onset of disease, which may occur as early as 2 to 4 weeks before flowering. Repeat applications at 7- to 10-day intervals (the minimum retreatment interval is 7 days). For use only on beans to be harvested dry with pods removed.  Apply by ground, air or chemigation.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>• Do not apply more than 11.5 pints of Bravo Zn (6 lb ai) per acre during each growing season.</li> <li>• Do not apply within 14 days before harvest.</li> </ul>			

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Blueberries	<b>Suppression:</b> Anthracnose (ripe rot) ( <i>C. gloeosporoides</i> )  Mummy berry ( <i>M. vaccinicorymbosi</i> )	4 <sup>1</sup> / <sub>4</sub> to 5 <sup>3</sup> / <sub>4</sub> (2.25 to 3.0)	Bravo Zn should be integrated into an overall disease management strategy which includes alternation with a fungicide with a different mode of action. Diseases may only be suppressed and russetting may occur under heavy disease pressure or unfavorable environmental conditions.  Apply in sufficient water to obtain adequate coverage, normally 20 to 100 gallons per acre. Begin applications at budbreak (green tip) and repeat at 10-day intervals through early bloom (the minimum retreatment interval is 10 days). Under heavy disease pressure, use the higher rate.  Apply by ground or air.
	Rust ( <i>Pucciniastrum vaccinii</i> )  Septoria leaf spot ( <i>Septoria albopunctata</i> )	4 <sup>1</sup> / <sub>4</sub> to 5 <sup>3</sup> / <sub>4</sub> (2.25 to 3.0)	<b>Foliar Use After Harvest</b> (after all berries are harvested): To maintain healthy leaves for the following season, apply in sufficient water to obtain adequate coverage (normally 20 to 100 gallons per acre). Repeat at 10- to 14-day intervals (the minimum retreatment interval is 10 days).  Apply by ground or air.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>Do not apply more than 17 pints of Bravo Zn (9.0 lb ai) per acre during each growing season.</li> <li>Do not apply after full bloom (except for foliar use after harvest) or within 42 days of harvest.</li> </ul>			
Carrots	Alternaria leaf blight ( <i>A. dauci</i> )  Cercospora leaf spot ( <i>C. carotae</i> )	2 <sup>1</sup> / <sub>4</sub> to 2 <sup>3</sup> / <sub>4</sub> (1.17 to 1.5)	Use in sufficient water to obtain adequate coverage. Start applications when disease threatens and repeat at 7- to 10-day intervals (the minimum retreatment interval is 7 days) to maintain control.  Apply by ground, air or chemigation.
<b>Specific Use Restrictions:</b> <ul style="list-style-type: none"> <li>Do not apply more than 29 pints of Bravo Zn (15 lb ai) per acre during each growing season.</li> <li>Bravo Zn may be applied the day of harvest.</li> </ul>			

continued...

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Cucurbits Cantaloupe Cucumber Honeydew melon Muskmelon Pumpkin Squash Watermelon	Anthrachnose ( <i>Colletotrichum</i> spp.)	2 <sup>1</sup> / <sub>4</sub> to 2 <sup>3</sup> / <sub>4</sub> (1.17 to 1.5)	Use in sufficient water to obtain adequate coverage. Begin applications when plants are in first true leaf stage or when conditions are favorable for disease development. Repeat applications at 7-day intervals (the minimum retreatment interval is 7 days).  Note: Spraying mature watermelons may result in sunburn of the upper surface of the fruit. Do not apply Bravo Zn to watermelons when any of the following conditions are present:  1. Intense heat and sunlight 2. Drought conditions 3. Poor vine canopy 4. Other crop and environmental conditions which may be conducive to increased natural sunburn  Do not combine Bravo Zn with anything except water for application to watermelons unless your prior use has shown the combination to be noninjurious to watermelons under your conditions of use.  Apply by ground, air or chemigation.
	Downy mildew ( <i>Pseudoperonospora cubensis</i> )		
	Target spot ( <i>Corynespora cassiicola</i> )	2 <sup>3</sup> / <sub>4</sub> to 4 <sup>1</sup> / <sub>4</sub> (1.5 to 2.25)	
	Alternaria leaf blight ( <i>A. cucumerina</i> )		
	Alternaria leaf spot ( <i>A. alternata</i> )		
	Cercospora leaf spot ( <i>C. citrullina</i> )		
	Gummy stem blight / vine decline ( <i>Didymella bryoniae</i> )		
	Powdery mildew ( <i>Sphaerotheca</i> only)		
	Scab ( <i>Cladosporium cucumerinum</i> )		

**Specific Use Restrictions:**

- Do not apply more than 30 pints of Bravo Zn (15.75 lb ai) per acre during each growing season.
- Bravo Zn may be applied the day of harvest.

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS												
Onion (Dry bulb) and Garlic	Botrytis leaf blight ( <i>Botrytis</i> spp.) Purple blotch ( <i>Alternaria porri</i> ) <b>Suppression:</b> Botrytis neck rot Downy mildew ( <i>Peronospora destructor</i> )	1½ to 4¼ (0.75 to 2.25)	Apply in sufficient water to obtain thorough coverage of tops. Bravo Zn is recommended for use with disease monitoring systems which adjust fungicide rates and frequency of application according to disease hazard. Apply as follows:												
			<table border="1"> <thead> <tr> <th></th> <th>Low Disease Hazard &amp; Prior to Infection</th> <th>Low Disease Hazard &amp; Some Disease Present</th> <th>High Disease Hazard</th> </tr> </thead> <tbody> <tr> <td>Rate per Acre</td> <td>1½ pt</td> <td>2 pt</td> <td>4¼ pt</td> </tr> <tr> <td>Frequency</td> <td>10 days</td> <td>7-10 days</td> <td>7 days</td> </tr> </tbody> </table>		Low Disease Hazard & Prior to Infection	Low Disease Hazard & Some Disease Present	High Disease Hazard	Rate per Acre	1½ pt	2 pt	4¼ pt	Frequency	10 days	7-10 days	7 days
				Low Disease Hazard & Prior to Infection	Low Disease Hazard & Some Disease Present	High Disease Hazard									
			Rate per Acre	1½ pt	2 pt	4¼ pt									
Frequency	10 days	7-10 days	7 days												
For suppression of neck rot ( <i>Botrytis</i> spp.) during storage, a minimum of three weekly applications prior to lifting, using 2 to 4¼ pints of Bravo Zn per acre, is recommended.															
The minimum retreatment interval is 7 days. Apply by ground, air or chemigation.															

**Specific Use Restrictions:**

- Do not apply more than 29 pints of Bravo Zn (15 lb ai) per acre during each growing season.
- Do not apply within 7 days of harvest.

Onion (green bunching) Leek Shallots Onion and Garlic (grown for seed)	Botrytis leaf blight ( <i>Botrytis</i> spp.) Purple blotch ( <i>Alternaria porri</i> ) <b>Suppression:</b> Downy mildew ( <i>Peronospora destructor</i> )	2¼ to 4¼ (1.17 to 2.25)	Use in sufficient water to obtain thorough coverage of tops. Begin applications prior to favorable infection periods, and repeat at 7- to 10-day intervals for as long as conditions favor disease (the minimum retreatment interval is 7 days). Use the high rate and a 7-day schedule of applications when heavy dew or rain persist. Apply by ground, air or chemigation.
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**Specific Use Restrictions:**

- Do not apply more than 13 pints of Bravo Zn (6.75 lb ai) per acre during each growing season.
- Do not apply within 7 days of harvest on garlic.
- Do not apply within 14 days of harvest on green bunching onions, leeks or shallots.

*continued...*

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Potato	Black dot ( <i>Colletotrichum coccodes</i> )  Botrytis vine rot ( <i>B. cinerea</i> )  Early blight ( <i>Alternaria solani</i> )  Late blight ( <i>Phytophthora infestans</i> )	1 <sup>1</sup> / <sub>8</sub> (0.6) - then - 1 <sup>1</sup> / <sub>2</sub> to 2 <sup>1</sup> / <sub>4</sub> (0.75 to 1.17)	<p>Begin applications at the low rate when vines are first exposed and leaf wetness occurs. Repeat applications at 5- to 10-day intervals (the minimum retreatment interval is 5 days).</p> <p>Begin applying the higher label rates at 5- to 10-day intervals when any one of the following events occur:</p> <ul style="list-style-type: none"> <li>• Vines close within the rows</li> <li>• Late blight forecasting measures 18 disease severity values (DSV)</li> <li>• The crop reaches 300 P-days</li> </ul> <p>Increase water spray volume as canopy density increases. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe.</p> <p>Apply by ground, air, or chemigation. Do not exceed a 10-day interval between applications when using chemigation.</p>
<p><b>Specific Use Restrictions:</b></p> <ul style="list-style-type: none"> <li>• Do not apply more than 21.5 pints of Bravo Zn (11.25 lb ai) per acre during each growing season.</li> <li>• Do not apply within 7 days of harvest.</li> </ul>			

CROP	DISEASES (Pathogen)	PT PRODUCT/A (lb ai/A)	APPLICATION DIRECTIONS
Tomato	<b>FOLIAGE</b> Early blight ( <i>Alternaria solani</i> ) Gray leaf mold ( <i>Fluvia fluva</i> ; <i>Cladosporium</i> ) Gray leaf spot ( <i>Stemphyllium botryosum</i> ) Late blight ( <i>Phytophthora infestans</i> ) Septoria leaf spot ( <i>S. lycopersici</i> ) Target spot ( <i>Corynespora cassiicola</i> )	2 to 2 <sup>3</sup> / <sub>4</sub> (1.0 to 1.5)	Apply in sufficient water to obtain adequate coverage. Begin applications when dew or rain occur and disease threatens. Apply on a 7- to 10-day interval for foliage diseases. For fruit diseases, begin at fruit set and apply on a 7- to 14-day interval. Use the highest rate and shortest interval specified when disease conditions are severe. The minimum retreatment interval is 7 days.  Apply by ground, air, or chemigation.
	<b>FRUIT</b> Alternaria fruit rot (black mold) ( <i>A. alternata</i> ) Anthracnose ( <i>Colletotrichum spp.</i> ) Botrytis gray mold ( <i>B. cinerea</i> ) Late blight fruit rot ( <i>P. infestans</i> ) Rhizoctonia fruit rot ( <i>R. solani</i> )	2 <sup>3</sup> / <sub>4</sub> to 4 (1.5 to 2.1)	

**Specific Use Restrictions:**

- Do not apply more than 28.5 pints of Bravo Zn (15 lb ai) per acre during each growing season.
- Bravo Zn may be applied the day of harvest.

### Tree and Orchard Crops

Apply Bravo Zn in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. For fruit and nut bearing crops, the maximum volume is 300 gallons per acre unless indicated otherwise in the specific use directions.

Application with ground equipment is preferable to aerial application because ground applications generally give better coverage of the tree canopy. If application with ground equipment is not feasible, Bravo Zn may be applied with aircraft using at least 20 gallons of spray per acre.

When concentrate sprays are used or when treating non-bearing or immature trees, the lower rate of Bravo Zn listed may be used. Do not allow livestock to graze in treated areas.

CROP	DISEASES (Pathogen)	PT PRODUCT PER (lb ai per)		APPLICATION DIRECTIONS
		Acre	100 gal*	
Cherry	Leaf curl ( <i>Taphrina deformans</i> )  Shot hole ( <i>Wilsonomyces carpophilus</i> )	4 <sup>1</sup> / <sub>2</sub> to 6 (2.3 to 3.1)	1 <sup>1</sup> / <sub>2</sub> to 2 (0.75 to 1.0)	For best control of both diseases, apply at leaf fall in late autumn, using sufficient water and proper sprayer calibration to obtain uniform coverage. When conditions favor high disease levels, use the high rate of application and apply once or twice more in mid to late winter before budswell. If the leaf fall application is not practical, application of Bravo Zn for control of leaf curl may be made at any time prior to budswell the following spring. Where shothole occurs, also apply at budbreak to protect newly emerging leaves and at shuck split to prevent fruit infections.  Apply by ground or air.
	Brown rot blossom blight ( <i>Monilinia</i> spp.)	4 <sup>1</sup> / <sub>2</sub> to 6 (2.3 to 3.1)	1 <sup>1</sup> / <sub>2</sub> to 2 (0.75 to 1.0)	Make one application at popcorn (pink, red or early white bud) and a second application at full bloom. If weather conditions favor disease development, make an additional application at petal fall.

CROP	DISEASES (Pathogen)	PT PRODUCT PER (lb ai per)		APPLICATION DIRECTIONS
		Acre	100 gal*	
<b>Cherry</b> <i>(continued)</i>	Black knot (cherry) <i>(Apiosporina morbosa)</i>  Cherry leaf spot <i>(Blumeriella jaapii)</i>  Scab <i>(Cladosporium carpophilum)</i>	4 <sup>1</sup> / <sub>2</sub> to 6 (2.3 to 3.1)	1 <sup>1</sup> / <sub>2</sub> to 2 (0.75 to 1.0)	In addition to the bloom application listed above, make one application at shuck split. Do not apply Bravo Zn after shuck split and before harvest. If additional disease control is needed before harvest, use another registered fungicide.  For control of cherry leaf spot after harvest, make one application to foliage within 7 days after fruit is removed. In orchards with a history of high leaf spot incidence, make a second application 10 to 14 days later.  Apply by ground or air.

**Specific Use Restrictions:**

- Do not apply more than 29.5 pints of Bravo Zn (15.5 lb ai) per acre during each growing season.
- The minimum re-treatment interval is 10 days.
- Bravo Zn may be applied through shuck split. Bravo Zn may then again be applied after harvest as indicated.

\*Volumetric rates to be used only with full dilute spray volume specified on this label for tree and orchard crops.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage and disposal.

**Pesticide Storage**

Store in a cool place. Protect from excessive heat.

**Pesticide Disposal**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Handling [less than or equal to 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

*continued...*

## **STORAGE AND DISPOSAL (continued)**

### **Container Handling [greater than 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

### **Container Handling [greater than 5 gallons]**

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.**

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the SYNGENTA Logo and the PURPOSE ICON  
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Dipel® is a registered trademark of Valent BioSciences Corporation.

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For non-emergency (e.g., current product information), call  
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:  
Syngenta Crop Protection LLC  
P.O. Box 18300  
Greensboro, North Carolina 27419-8300

**SCP 50534-204A-L1H 0814  
4044588**



**GROUP M5 FUNGICIDE**

## Agricultural Fungicide

Active Ingredient: Chlorothalonil (tetrachloroisophthalonitrile) . . . . .	38.5%
Other Ingredients: . . . . .	61.5%
Total: . . . . .	100.0%

Bravo Zn is formulated as a suspension concentrate (SC).

Contains 4.17 pounds chlorothalonil per gallon

See additional precautionary statements and directions for use inside booklet.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 50534-204-100  
EPA Est. 50534-TX-001<sup>GBY</sup>  
EPA Est. 070989-AR-001<sup>OMB</sup>

(Superscript is first three letters of batch code on container)

Bravo®, SuperWeatherStik® and the Syngenta logo are trademarks of a Syngenta Group Company.

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Manufactured for:  
Syngenta Crop Protection LLC  
P.O. Box 18300  
Greensboro, North Carolina 27419-8300

**SCP 50534-204A-L1H 0814  
4044588**

# 2.5 gallons

Net Contents

## KEEP OUT OF REACH OF CHILDREN. WARNING/ AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### Precautionary Statements

#### Hazards to Humans and Domestic Animals WARNING/AVISO

Harmful if absorbed through skin. Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as natural rubber, Selection Category A). Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### FIRST AID

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

**If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**NOTE TO PHYSICIAN:** Persons suffering with temporary allergic skin reactions may respond to treatment with oral antihistamines and topical or oral steroids.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**HOT LINE NUMBER:** For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call **1-800-888-8372**.

**Environmental Hazards:** This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high

water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

**Groundwater Advisory:** Chlorothalonil is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory:** This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

**Chemigation:** Refer to supplemental labeling in attached booklet for use directions on chemigation. Do not apply this product through any type of irrigation system, unless the supplemental labeling on chemigation is followed.

## STORAGE AND DISPOSAL

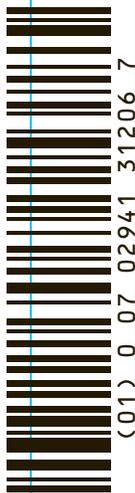
Do not contaminate water, food or feed by storage and disposal.

**Pesticide Storage:** Store in a cool place. Protect from excessive heat.

**Pesticide Disposal:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Handling [less than or equal to 5 gallons]:** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.**



## BRAVO® ZN

Date: 7/8/2015  
 Replaces: 1/14/2015

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **BRAVO® ZN**  
 Product No.: A7867G  
 Use: Fungicide  
 Manufacturer: Syngenta Crop Protection, LLC  
 Post Office Box 18300  
 Greensboro NC 27419  
 Manufacturer Phone: 1-800-334-9481

**Emergency Phone: 1-800-888-8372**

### 2. HAZARDS IDENTIFICATION

Classifications: Skin Corrosion/Irritation: Category 2  
 Skin Sensitizer: Category 1B  
 Carcinogenicity: Category 2  
 Specific Target Organ Toxicity: Repeated Category 2  
 Specific Target Organ Toxicity: Respiratory Irritation Category 3  
 Inhalation: Category 2

Signal Word (OSHA): Warning

Hazard Statements: Causes skin irritation  
 May cause an allergic skin reaction  
 Fatal if inhaled  
 May cause respiratory irritation  
 Suspected of causing cancer  
 May cause damage to organs through prolonged or repeated exposure

Hazard Symbols:



Precautionary Statements: Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Do not breathe mist, vapors, spray.  
 Wash hands and face thoroughly after handling.  
 Use only outdoors or in a well-ventilated area.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves, protective clothing, eye protection.  
 In case of inadequate ventilation wear respiratory protection. See Section 8 Exposure

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Control/Personal Protection.  
 If on skin: Wash with plenty of soap and water.  
 If skin irritation or rash occurs: Get medical advice.  
 If inhaled: Remove person to fresh air and keep comfortable for breathing.  
 If exposed or concerned: Get medical advice/attention.  
 Immediately call a poison center, doctor or Syngenta.  
 Call a poison center, doctor or Syngenta if you feel unwell.  
 Specific treatment is urgent (see Section 4 First Aid Measures).  
 Take off contaminated clothing and wash it before reuse.  
 Store locked up.  
 Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
1,2-Propanediol	Propylene Glycol	57-55-6	Trade Secret
Silica, amorphous	Silica, amorphous	112926-00-8	Trade Secret
Zinc Oxide	Zinc Oxide	1314-13-2	< 6%
Other ingredients	Other ingredients	Trade Secret	> 55.5%
Tetrachloroisophthalonitrile	Chlorothalonil	1897-45-6	38.5%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

### 4. FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

**Ingestion:** If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

**Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

- Skin irritation
- Allergic skin reaction
- Respiratory irritation

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Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

### 5. FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

### 7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Store locked up.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Propylene Glycol	Not Established	Not Established	10 mg/m <sup>3</sup> TWA	AIHA
Silica, amorphous	80 mg/m <sup>3</sup> /% SiO <sub>2</sub> TWA	Not Established	6 mg/m <sup>3</sup> TWA	NIOSH

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Zinc Oxide	15 mg/m <sup>3</sup> TWA (total dust); 5 mg/m <sup>3</sup> TWA (respirable)	2 mg/m <sup>3</sup> TWA (total dust); 10 mg/m <sup>3</sup> STEL (respirable)	5 mg/m <sup>3</sup> TWA (dust); 15 mg/m <sup>3</sup> Ceiling	NIOSH
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Chlorothalonil	Not Established	Not Established	0.1 mg/m <sup>3</sup> TWA	Syngenta

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

**Ingestion:**

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

**Eye Contact:**

Where eye contact is likely, use chemical splash goggles.

**Skin Contact:**

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

**Inhalation:**

A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH certified respirator with any N, R, P or HE filter.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Gray viscous suspension

Odor: Slight

Odor Threshold: Not Available

pH: 7.5 - 9.5

Melting point/freezing point: Not Applicable

Initial boiling point and boiling range: 212 °F

Flash Point (Test Method): Not Available

Flammable Limits (% in Air): Not Applicable

Flammability: Not Applicable

Vapor Pressure: Chlorothalonil 0.00000057mmHg @ 77°F (25°C)

Vapor Density: Not Available

Relative Density: 1.28 g/ml (water = 1)

Solubility (ies): Chlorothalonil 0.81 mg/l @ 77°F (25°C)

Partition coefficient: n-octanol/water: Not Applicable

Autoignition Temperature: Not Applicable

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

## BRAVO® ZN

Date: 7/8/2015  
Replaces: 1/14/2015

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### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive.  
Chemical stability: Stable under normal use and storage conditions.  
Possibility of hazardous reactions: Material is not known to polymerize.  
Conditions to Avoid: None known.  
Incompatible materials: None known.  
Hazardous Decomposition Products: None known.

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### 11. TOXICOLOGICAL INFORMATION

#### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Skin irritation, Respiratory irritation

Delayed, immediate and chronic effects of exposure: Possible carcinogenicity, Skin irritation, Allergic skin reaction, Respiratory system effects

#### Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	3750 mg/kg body weight
Dermal:	Dermal (LD50 Rabbit) :	> 2000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	0.25 mg/l air - 4 hours
Eye Contact:	Mildly Irritating (Rabbit)	
Skin Contact:	Moderately Irritating (Rabbit)	
Skin Sensitization:	A moderate skin sensitizer in animal tests.	

#### Reproductive/Developmental Effects

Chlorothalonil: Did not show reproductive toxicity effects in animal experiments. Did not show teratogenic effects in animal experiments.

#### Chronic/Subchronic Toxicity Studies

Chlorothalonil: In dogs, 1 year administration caused a significant decrease in body weight gain and increases in absolute liver and kidney weights.

Neurotoxicity: No evidence in regulatory studies.

#### Carcinogenicity

Chlorothalonil: Chlorothalonil causes kidney tumors in rats and mice via a nongentoxic mode of action secondary to target organ toxicity.  
Did not show mutagenic effects in animal experiments.  
IARC identifies chlorothalonil as a 2B carcinogen (possibly carcinogenic to humans).

## BRAVO® ZN

Date: 7/8/2015  
Replaces: 1/14/2015

Chemical Name	NTP/IARC/OSHA Carcinogen
1,2-Propanediol	No
Silica, amorphous	IARC Group 3
Zinc Oxide	No
Other ingredients	No
Tetrachloroisophthalonitrile	IARC Group 2B

Other Toxicity Information

Studies on rats and mice have suggested that technical chlorothalonil (97%), when fed at high levels in the diet, may have oncogenic potential to these laboratory animals. However, neither chlorothalonil nor its metabolites interact with DNA and thus are not mutagenic. Tumor formation has been related to a non-genotoxic mechanism of action for which threshold levels have been established in rats and mice. Comprehensive dietary and worker exposure studies have shown exposure levels for humans to be well below these threshold levels. In addition, surveillance of chlorothalonil plant workers for over twenty years has not demonstrated any increase in oncogenic potential to humans.

Toxicity of Other Components

Other ingredients  
Not Applicable

## Propylene Glycol

Reported to cause central nervous system depression (anesthesia, dizziness, confusion), headache and nausea. Also, eye irritation may occur with lacrimation but no residual discomfort or injury. Prolonged contact to skin may cause mild to moderate irritation and possible allergic reactions. Chronic dietary exposure caused kidney and liver injury in experimental animals.

## Silica, amorphous

Dusts in high concentrations may cause skin, eye and respiratory tract irritation.

## Zinc Oxide

Causes respiratory tract irritation. May cause digestive tract irritation. Causes eye and skin irritation. Inhalation of fumes may cause metal-fume fever.

Target OrgansActive Ingredients

Chlorothalonil: Lung, kidney

Inert Ingredients

Other ingredients: Not Applicable

Propylene Glycol: CNS, kidney, liver

Silica, amorphous: Skin, eye, respiratory tract

Zinc Oxide: Respiratory tract, digestive tract, eye, skin

**12. ECOLOGICAL INFORMATION**

## Eco-Acute Toxicity

## Chlorothalonil:

Green Algae 5-day EC50 190 ppb

Bird (Mallard Duck) LD50 Oral > 4640 mg/kg

Invertebrate (Water Flea) 48-hour EC50 70 ppb

Fish (Rainbow Trout) 96-hour LC50 47 ppb

## Environmental Fate

**BRAVO® ZN**

Date: 7/8/2015

Replaces: 1/14/2015

## Chlorothalonil:

The information presented here is for the active ingredient, chlorothalonil.

Low bioaccumulation potential. Not persistent in soil or water. Low mobility in soil. Sinks in water (after 24 h).

**13. DISPOSAL CONSIDERATIONS**

## Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

**14. TRANSPORT INFORMATION**

## DOT Classification

Ground Transport - NAFTA

Non-Bulk: Not regulated

Tank Truck:

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), Marine Pollutant

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

## Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil), Marine Pollutant

Hazard Class: Class 9

Identification Numbers: UN 3082

Packing Group: PG III

Air Transport

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Chlorothalonil)

Hazard Class: Class 9

Identification Numbers: UN 3082

Packing Group: PG III

**15. REGULATORY INFORMATION**

## Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Warning: Harmful if absorbed through skin. Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as natural rubber, Selection Category A). Remove and wash contaminated clothing before reuse. Avoid breathing spray mist. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

## EPA Registration Number(s):

50534-204-100

## EPCRA SARA Title III Classification:

## BRAVO® ZN

Date: 7/8/2015  
 Replaces: 1/14/2015

Section 311/312 Hazard Classes: Acute Health Hazard  
 Chronic Health Hazard

Section 313 Toxic Chemicals: Chlorothalonil 38.5% (CAS No. 1897-45-6)  
 Zinc Oxide < 6% (CAS No. 1314-13-2)

CERCLA/SARA 304 Reportable Quantity (RQ):  
 None

RCRA Hazardous Waste Classification (40 CFR 261):  
 Not Applicable

TSCA Status:  
 Exempt from TSCA, subject to FIFRA

### 16. OTHER INFORMATION

<u>NFPA Hazard Ratings</u>		<u>HMIS Hazard Ratings</u>		
Health:	3	Health:	2	0 Minimal
Flammability:	1	Flammability:	1	1 Slight
Instability:	0	Reactivity:	0	2 Moderate
				3 Serious
				4 Extreme
				* Chronic

Syngenta Hazard Category: D,S

For non-emergency questions about this product call:  
 1-800-334-9481

Original Issued Date: 11/12/1998  
 Revision Date: 7/8/2015 Replaces: 1/14/2015  
 Section(s) Revised: 2, 4, 11

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.



**STATE OF MAINE**  
**DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY**  
**BOARD OF PESTICIDES CONTROL**  
 28 STATE HOUSE STATION  
 AUGUSTA, MAINE 04333

**PAUL R. LEPAGE**  
 GOVERNOR

**WALTER E. WHITCOMB**  
 COMMISSIONER

To: Board of Pesticides Control Members  
 From: Mary Tomlinson, Pesticides Registrar/Water Quality Specialist  
 RE: EPA Special Local Need (SLN) [FIFRA, Section 24(c)] application to approve the use of Omega 500F Agricultural Fungicide, EPA Reg. No. 71512-1, as an in-furrow, banded spray at potato planting to control powdery mildew scab

State Supplemental Special Local Need (SLN) [FIFRA, Section 24(c)] application to approve the Omega 500F Fungicide, EPA Reg. No. 71512-1-100, as an in-furrow, banded spray at potato planting to control powdery mildew scab

Date: May 4, 2016

\*\*\*\*\*

Enclosed is the above referenced Special Local Need (SLN) [FIFRA, Section 24(c)] application and supporting documents for your consideration.

Powdery scab, caused by *Spongospora subterranean* f. sp. *Subterranean*, infects tubers, roots, and stolons causing lesions and pustules. The fungus also can transmit the potato mop top virus that causes darkening of the processed potato. Infected crops are largely unsaleable. Use of Omega 500F Fungicide will be limited by the few susceptible potato varieties and presence of specific environmental growing conditions required by the pathogen. Use is not expected to exceed the current tolerance of 0.02 ppm in potatoes.

EPA only permits issuance of an SLN on a primary product registration; however, states are permitted to issue a state supplemental SLN for a supplementally distributed product, assuming the basic registrant has approved the distributor's request for an SLN and the state has issued an SLN for the primary product. ISK Biosciences Corporation approved the supplemental SLN request by Syngenta Crop Protection, LLC for the use of Omega 500F Fungicide as an in-furrow, banded spray at potato planting to control powdery mildew scab.

Please review the following documents and let me know if you have any questions.

- FIFRA, Section 24(c) application
- Letter of request from ISK Biosciences Corporation
- Letter of support from Syngenta Crop Protection, LLC
- Letters of request from Steve Johnson, Crops Specialist, Maine Cooperative Extension to Syngenta

**HENRY JENNINGS, DIRECTOR**  
 90 BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-2731  
 WWW.THINKFIRSTSPRAYLAST.ORG

- Letter of support LaBrie Farms
- Omega 500F Agricultural Fungicide Potato Trials Summary
- Omega 500F Agricultural Fungicide draft Maine SLN label (ISK Biosciences Corp.)
- Omega 500F Agricultural Fungicide draft Maine SLN label (Syngenta Crop Protection, LLC)
- Omega 500F Agricultural Fungicide Section 3 label
- Omega 500F Agricultural Fungicide Section 3 label
- Omega 500F Fungicide SDS

Please review these materials and let me know if you have any questions.



United States Environmental Protection Agency  
Office of Pesticide Programs, Registration Division (7505C)  
Washington, DC 20460

**Application for/Notification of State Registration  
of a Pesticide To Meet a Special Local Need**  
*(Pursuant to section 24(c) of the Federal Insecticide,  
Fungicide, and Rodenticide Act, as Amended)*

For State Use Only  
Registration No. Assigned  
Date Registration Issued

1. Name and Address of Applicant for Registration ISK Biosciences Corporation 7470 Auburn Road Suite A Concord, Ohio 44057	2. Product is (Check one)	
	<input checked="" type="checkbox"/> EPA-Registered	EPA Registration Number 71512-1
	<input type="checkbox"/> New (not EPA-registered) Attach EPA Form 8570-4, Confidential Statement of Formula for new products.	EPA Company Number
3. Active Ingredient(s) in Product Fluzinam		

4. Product Name Omega 500F	5. If this is a food/feed use, a tolerance or other residue clearance is required. Cite appropriate regulations in 40 CFR Part 180, 185, and/or 186. Tolerance issued, 40 CFR Part 180.574
-------------------------------	--

6. Type of Registration (Give details in Item 13 or on a separate page, properly identified and attached to this form): a. To permit use of a new product. <input type="checkbox"/> b. To amend EPA registrations for one or more of the following purposes: <input checked="" type="checkbox"/> (1) To permit use on additional crops or animals. <input type="checkbox"/> (2) To permit use at additional sites. <input checked="" type="checkbox"/> (3) To permit use against additional pests. <input checked="" type="checkbox"/> (4) To permit use of additional application techniques or equipment. <input checked="" type="checkbox"/> (5) To permit use at different application rates. <input type="checkbox"/> (6) Other (specify below)	7. Nature of Special Local Need (check one) <input type="checkbox"/> There is no pesticide product registered by EPA for such use. <input checked="" type="checkbox"/> There is no EPA-registered pesticide product which, under the conditions of use within the State, would be as safe and/or as efficacious for such use within the terms and conditions of EPA registration. <input type="checkbox"/> An appropriate EPA-registered pesticide product is not available.
	8. If this registration is an amendment to an EPA-registered product, is it for a "new use" as defined in 40 CFR 152.3? <input type="checkbox"/> Yes (discuss in Item 13 below) <input checked="" type="checkbox"/> No

10. Has FIFRA section 24(c) registration for this use of the product ever, by another State, been (check appropriate box(es), if known): <input type="checkbox"/> Sought <input checked="" type="checkbox"/> Issued <input type="checkbox"/> Denied <input type="checkbox"/> Revoked If any of the above are checked, list States in Item 13 below. <input type="checkbox"/> No FIFRA section 24(c) Action	9. Has an EPA Registration or Experimental Use Permit for this chemical ever been (check applicable box(es), if known): <input type="checkbox"/> Sought <input checked="" type="checkbox"/> Issued <input type="checkbox"/> Denied <input type="checkbox"/> Cancelled <input type="checkbox"/> Suspended <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Experimental Use Permit <input type="checkbox"/> No Previous Permit Action
	11. Endangered Species Act: (Give details in Item 13 or on a separate page, properly identified and attached to this form) Identify the counties where this pesticide will be used. If Statewide, indicate "all." Provide a list of Federally protected endangered/threatened species which occur in the areas of proposed use.

Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.	12. Indicate use status of Special Local Need, i.e., planned dates of use: From: March To: July
--	--

Signature of Applicant or Authorized Representative <i>Michael A. Peplausch</i>	13. Comments (attach additional sheet, if needed) This use would allow Omega 500F to be applied as an in-furrow banded spray at potato planting to control Powdery Scab at the rate of 3 pt/A, which is not expected to exceed the current tolerance of 0.02 ppm in potatoes. This use has been accepted in the states of CO (CO-070003), ID (ID-090012), MN (MN-100002) and ND (ND-100002) and is being pursued in the states of ME and WI.
Title Manager, Product Registrations	
Telephone Number 440-357-4653	
Date 4-4-2016	

**Determination by State Agency**  
This registration is for a Special Local Need and is being issued in accordance with section 24(c) of FIFRA, as amended. To the best of our knowledge, the information above is correct, except as noted in "Comments" below or in attachments.

Name, Title, and Address of State Agency Official Mary Tomlinson Maine Board of Pesticides Control 28 State House Station Augusta, ME 04333	Comments (by State Agency Only) Expires December 31, 2021	Received by EPA
Title Pesticides Registrar/Water Quality Specialist		
Telephone Number 207.287.7544		
Date 5-13-2016		



April 4, 2016

Ms. Mary E. Tomlinson  
Pesticides Registrar & Water Quality Specialist  
Board of Pesticides Control  
ME Dept. of Agriculture, Conservation and Forestry  
28 State House Station  
Augusta, ME 04333-0028

Dear Ms. Tomlinson,

**Special Local Need Application – Omega 500F – Powdery Scab on Potatoes**

Enclosed please find ISK Biosciences Corporation's (ISKBC) application for a FIFRA Section 24(c) Special Local Need Registration for the use of Omega 500F (EPA Reg. No. 71512-1) to control powdery scab disease on potatoes, along with our draft supplemental label for this use. ISKBC does not sell our products directly in the USA. Syngenta Crop Protection, Inc., has the distribution rights in the USA to sell under their distributor label, Omega 500F Fungicide, (EPA Reg. No. 71512-1-100). Thus, no product with the ISKBC label will show up in the market place. Syngenta currently has their Omega 500F distributor label registered in Maine and will have supplied a 24(c) label as well. However, it is our understanding that we need to register this SLN as the basic registrant in ME to obtain this SLN from EPA.

Syngenta has provided a summary document on efficacy. In addition, a letter of support from Dr. Steven Johnson, The University of Maine, is also attached. Fluazinam, the active ingredient in Omega 500F has been shown to be effective in controlling powdery scab on potatoes in these data. The approved federal tolerance for fluazinam in potatoes is 0.02 ppm. The States of Colorado, Idaho, Minnesota and North Dakota have previously approved 24(c) labels for this same use. The State of Wisconsin has also approved it in the past and we are pursuing renewal of that registration.

The proposed use on potatoes for control of Powdery Scab is 1.5 to 3.0 pints per acre at planting, as an in-furrow treatment. Thus, the timing and rate are different from our current Section 3 label, but within the total amount of fluazinam allowed per season. The Section 3 label allows foliar applications at the rate of 5.5 to 8 fl. oz. per acre per application, every 7 to 10 days, with the total seasonal limit of 3.5 pints (1.82 lbs a.i.) per acre per growing season. The PHI on potatoes is 14 days. If 3 pints (1.56 lbs a.i.) are used for this disease, one application at 8 oz or less could be applied later in the season for late blight or white mold control and still be under the total seasonal limit.

**Residue Discussion:**

No residues were detected above the LOQ of 0.01 ppm in any of our residue trials (14 sites) that included foliar application rates up to 0.45 lbs a.i. per acre per application and included up to a total season amount of 2.05 lbs a.i. per acre per season, with 8 to 18 day PHIs.

**ISK Biosciences Corporation**

7470 Auburn Road, Suite A, Concord, Ohio 44077, U.S.A.

tel: 440/357-4640 • fax: 440/357-4661

April 4, 2016  
Ms. Mary E. Tomlinson  
Page 2

In addition, no residues were detected in any treated or untreated potatoes above the LOQ of 0.01 PPM in our processing study in potatoes that used the following treatments:

Treatment #1 - 3 applications as 0.46 lb a.i./A, 2.31 lb a.i./A, 2.32 lb a.i./A, for a total of 5.1 lbs a.i./A, PHI=14 days

Treatment #2 - 9 applications as 0.19 lb a.i./A (first 5 applications), 0.93 lb a.i./A (last 4 applications), for a total of 4.8 lbs a.i./A, PHI=14 days

Please note that the last application rate used in treatment #1 in the processing study (2.32 lb a.i./A) was greater than the proposed in-furrow rate of 3 pints (1.56 lbs a.i.) with no detectable residues.

Thus from a residue standpoint, this proposed use can be supported with the current residue data and the current tolerance of 0.02 PPM.

Our confined crop rotational study, using two separately labeled fluazinam (14C-phenyl and 14C-pyridyl) moieties, demonstrated that there were no residues of fluazinam or metabolites with the intact moiety taken up by rotated crops after two applications of fluazinam at 1 pound a.i./application with a four week interval between applications. Fluazinam was completely degraded in the soil and some 14C was reincorporated into natural products such as starch in barley grain.

Our field soil dissipation studies were conducted at a seasonal total application rate of 1.8 pounds a.i./A from either four applications at 0.45 or two applications at 0.9 lb a.i./A. The seasonal total from these studies would cover the 3 pint rate for Omega 500F (1.56 lbs a.i./A).

Should you require any further information, please feel free to contact me by phone at (440) 357-4653, by email at [peplowskim@iskbc.com](mailto:peplowskim@iskbc.com), or by fax at (440) 357-4661.

Best regards,

ISK BIOSCIENCES CORPORATION



Michael A. Peplowski  
Manager, Product Registrations

Patricia (Pat) Dinnen  
Regulatory Manager  
State Registration/State  
Affairs

Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300  
www.syngenta.com

Tel. 336 632 2494  
Fax: 336 632 2884  
pat.dinnen@syngenta.com



May 2, 2016

Ms. Mary E. Tomlinson  
Pesticides Registrar & Water Quality Specialist  
Board of Pesticides Control  
Maine Department of Agriculture, Conservation and Forestry  
28 State House Station  
Augusta, ME 04333-0028

Subject: Omega® 500F Agricultural Fungicide, EPA Reg. No. 71512-1  
Special Local Need Application – Powdery Scab on Potatoes

Dear Ms. Tomlinson:

Syngenta Crop Protection, LLC supports the SLN application made by ISK Biosciences Corporation as the primary registrant for Omega 500F Agricultural Fungicide for powdery scab on potatoes. Omega 500F Agricultural Fungicide is registered in Maine by Syngenta Crop Protection, LLC under a supplemental distributor registration (EPA Reg. No. 71512-1-100) from ISK Biosciences Corporation.

Enclosed in support of this application are:

- Federal Label for Omega 500F Agricultural Fungicide
- Omega 500F Agricultural Fungicide SDS

If you have any questions please do not hesitate to call me at 336-632-2494 or email me at [pat.dinnen@syngenta.com](mailto:pat.dinnen@syngenta.com).

Sincerely,

A handwritten signature in black ink that reads "Pat Dinnen".

Pat Dinnen  
Regulatory Manager

Enclosures



*Potato Program*

59 Houlton Road, Presque Isle, ME 04769, (207) 554-4373; Fax (207) 554-4373

May 4, 2016

Mary E. Tomlinson  
([Mary.E.Tomlinson@maine.gov](mailto:Mary.E.Tomlinson@maine.gov))  
Pesticide Registrar  
Maine Board of Pesticides Control / 28 SHS /  
Augusta, ME 04333

Dear Mary:

I wrote a letter (January 13, 2015, attached separately) supporting a 24c SLN label in Maine for Omega 500F® in furrow at the rate of 1.5 to 3.0 pints per acre. This would be in addition to the foliar label, which presently has a section 3 registration. The need existed at that time and still does.

I was told that the reason the 24c was not applied for in 2015 was that the owner of the active ingredient of Omega (ISK Biosciences) would not permit Syngenta, a co-registrant of the active ingredient, to pursue this registration. In the past year, relations between the companies have changed and ISK Biosciences is now permitting Syngenta to pursue this registration.

The issue identified in my 2015 letter still exists and is worsening. One farming operation I spoke with identified a loss of nearly \$750,000 in 2015, and losses have continued into the 2016 storage season. I have verified the extent of the loss with a second party. The processing company would not accept the potatoes as the chips had defects owing to the disease. Tuber lesions cause accumulation of reducing sugars at the site of the infection resulting in discoloration of the margins. This discoloration moves into the tuber flesh and appears on the processed product. One grower left 150 acres unharvested as they were unmarketable owing to Powdery Scab. The variety most susceptible has gone from 0 acres to perhaps a third of the Maine contracted chip acreage in four years. It is a long-term storage potato variety ideally suited to long-term storage markets served by Maine potato growers. Successful production of this long-term storage potato is paramount for continuing the success of the potato chip production in Maine.

<https://extension.umaine.edu/potatoes/>

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*Potato Program*

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An additional issue has arisen around Powdery Scab. The fungus, *Spongospora subterranea* f. sp. *subterranean*, carries the PMTV pathogen. Frequently the fungus infects potatoes with the virus (<https://extension.umaine.edu/publications/2437e/>). Spraing can result in the flesh of the tuber as a result. Of greater concern is the physiological disruption of the potato tuber because of latent virus infection. The defects cause severe darkening of the processed product and are unacceptable to most markets, as is seen below.



This has been on the increase over the past two years. A representative from the local processor stated that there has been a three-fold increase in the past three years of their recorded internal defects from the symptoms shown. I spoke with a grower about his losses from this issue. He was facing a \$200,000 loss without the efforts of two processors to accommodate his potatoes the best they could. His direct monetary loss end up being more than 10 percent of this projected number. The processor confirmed this situation. According to the processor, there was in the range of \$150,000 of direct grower losses in 2015 from this disease. Losses to the processor were multiples of the losses suffered by the growers.

<https://extension.umaine.edu/potatoes/>



*Potato Program*

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A real concern to the processor is the loss of premium markets. This disease has effectively eliminated many of their products from premium markets. Consequently, they pay growers less their potatoes. It is not profitable for the processing plant or potato growers to process or grow subpar potatoes. In fact, the contract and the markets are set on making premium grade, not a low end or cull market.

Both diseases, Powdery Scab and Potato Mop Top Virus, have dramatically affected recent potato crops in Maine. The requested product, Omega 500F®, is not a cure all is not likely to be used in situations, but it can provide reduction in the amount of disease and subsequent losses. Please feel free to contact me if have questions or require further information.

Sincerely,

A handwritten signature in black ink that reads 'Steven B. Johnson'. The signature is written in a cursive style and is underlined.

Steven B. Johnson, Ph.D.  
Crops Specialist

<https://extension.umaine.edu/potatoes/>

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*Potato Program*

59 Houlton Road, Presque Isle, ME 04769, (207) 554-4373; Fax (207) 554-4373

January 13, 2015

Kiran Shetty (kiran.shetty@syngenta.com)  
Seed Treatment Support Representative  
Syngenta Crop Protection  
35 Ross Road  
Durham, NH 0384-4221

Dear Kiran:

I am requesting Syngenta to submit a 24c SLN label request to the State of Maine for Omega 500F® in furrow at the rate of 1.5 to 3.0 pints per acre. This would be in addition to the foliar label which presently has a section 3 registration.

Powdery Scab is caused by the pathogen *Spongospora subterranea* f. sp. *subterranea*. The pathogen has a resistant resting stage that enables it to survive in soil for many years. Powdery Scab was first found in Germany in 1841, and then found throughout Europe by 1855. It was found in South America in 1891, in New Brunswick, Canada in 1913 and later that year in Maine. Maine potatoes were quarantined as a result of the presence of the disease. Studies conducted established that the disease only occurs under a narrow range of environmental conditions. This, along with the discovery of the disease in most potato-producing areas of the United States, led officials to lift the quarantine.

The appearance of the disease is dependent on favorable conditions and the presence of inoculum. The pathogen will flourish in soil temperatures less than 68 degrees Fahrenheit and prefers poorly drained soil. The optimal infection conditions are soil temperatures of 55 to 65 degrees F with soil moisture over 15 percent. The pathogen can be infectious across a pH range from 4.7 to 7.6. The susceptible stage of potato growth is one week before tuber set. The infection conditions are warm soil conditions (over 50 degrees Fahrenheit) with high moisture (over 15 percent). If these environmental and host conditions are met and the pathogen is present, the disease can occur. High soil moisture early in the season with a gradual drying out is thought to encourage the development of the disease. Many of the northern tier states (Idaho, Wisconsin, and Maine) have these conditions.



*Potato Program*

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Symptoms of this disease are confined to below-ground parts of the potato plant. Infected roots and stolons may have galls. The pathogen invades the tuber through lenticels, wounds and sometimes, the eyes. The symptoms loosely resemble those of scab. However, the lesions are usually smaller and are often quite circular. The lesions progress from brown to olive-brown spots, which are raised and blister-like, to dark brown roundish, open, raised pustules. The pustules are filled with a brown, powdery mass of spores and broken-down tissue. These spores can cause the disease. Infected tubers are predisposed to other maladies during storage such as Fusarium dry rot and late blight. This pathogen can transmit potato mop-top virus.

Not every potato needs protection offered by Omega. Russet Burbank roots are affected but tubers rarely have lesions. Most susceptible are thin-skinned potato varieties such as Red Norland and some chipping varieties, most notably FL2137. So with limited susceptible varieties and specific infection conditions, this is truly a SLN or Special Local Needs application. The need for this seed treatment is real. In fact, one Maine grower of FL2137 lost over \$500,000 last year alone to powdery scab. This loss occurred on land that was well-rotated in an attempt to reduce soil-borne pathogens. Crop insurance covers the crop lost measured by reduced harvest, not potatoes unsaleable as determined by the end market. This grower harvested an average to large crop, but was unable to sell it to the intended market and it went into dehydrated potato flakes for less than 10% of the intended market price.

I expect that less than 15 percent of the Maine potato acreage would be under consideration for Omega, with the number closer to 5 percent of the acreage. Variety susceptibility plays into that as well as cost. For example, a typical foliar fungicide application (BravoZn) is less than \$7.50 per acre where an Omega application is about \$75 to \$150 per acre. The 2.5 gallon jug covers about the same 13 acres but costs \$75 for BravoZn and over \$1000 for Omega. The \$75 to \$150 per acre added cost to potato production will limit the use of the material.

There is no good control for this disease. Seed treatments may help reduce the spread of the pathogen from infected seed. Data, while not extensive, does show reduction of 60% of powdery scab incidence with the application of Omega across several trials. These data



*Potato Program*

59 Houlton Road, Presque Isle, ME 04769, (207) 554-4373; Fax (207) 554-4373

lead to the request and granting of a SLN in Idaho (ID-090012) and Wisconsin (WI-110002) for 1.5 to 3 pints per acre of Omega applied in furrow over the seed piece.

Again, I am requesting Syngenta to submit a 24c SLN label request to the State of Maine for Omega 500F® in furrow at the rate of 1.5 to 3.0 pints per acre. This would be in addition to the foliar label which presently has a section 3 registration.

The Pesticide Registrar requires a letter requesting a 24c registration and a completed application (8570-25). The contact information is:

Mary Tomlinson (mary.e.tomlinson@maine.gov)  
Pesticide Registrar  
Maine Board of Pesticides Control  
28 State House Station  
Augusta, ME 04333-0028  
FAX: (207) 287-7548

I urge you to apply to the Maine Board of Pesticides Control at the above address. Please feel free to contact me if have questions or require further information.

Sincerely,

Steven B. Johnson, Ph.D.  
Crops Specialist

cc: MBPC

Dear Mary Tomlinson

We at LaBrie Farms would like to encourage the Maine Board of Pesticide Control to grant the 24(C) special local need label for Omega fungicide's in furrow application at planting on potatoes for the 2016 growing season.

This label would provide us with an additional tool to help us with control of powdery scab in potatoes. In the past two years we have experienced fry color issues on processing potatoes destined for McCain Foods that we attribute to high levels of powdery scab which vectors other viruses. These issues have caused us financial hardship for the past two growing seasons.

Powdery scab can be detrimental for all sectors of the Maine Potato Industry from color issues in chip and processing potatoes, to external appearance issues in fresh market potatoes as well. Maine potato growers would be at a disadvantage to the other growing regions in the country that currently have already received the Special Local Need Label if we do not receive this 24(C).

For these reasons we would urge the MBPC to approve the 24(C) in furrow application of Omega Fungicide for use in Maine for the 2016 growing season.

Thank you for your time and support of our industry.

Keith LaBrie

Vice-Pres LaBrie Farms LLC.



# OMEGA<sup>®</sup> 500F

## AGRICULTURAL FUNGICIDE

**24(c) SPECIAL LOCAL NEEDS LABEL FOR SUPPRESSION OF POWDERY SCAB ON POTATOES**

**FOR DISTRIBUTION AND USE ONLY IN THE STATE OF MAINE**

**IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH IT LABELING**

For Agricultural Use Only

EPA SLN No. ME-\_\_\_\_\_

EPA Reg. No. 71512-1

EMERGENCY CALLS: 888-484-7546

This label expires and must not be distributed or used in accordance with this SLN registration after December 31, 2021.

CROP	RATE OF APPLICATION	PEST
Potatoes	In-furrow – 1.5 to 3.0 pints per Acre	Powdery Scab ( <i>Spongospora subterranea</i> )

### DIRECTIONS FOR USE

**Application Instructions (Planting time treatment):** Apply Omega 500F in at least 5 to 10 gallons of water per acre. Use Omega 500F at the 1.5 pint per acre rate on fields with a history of low levels of powdery scab or with low numbers of spore balls present in the soil. Apply the 3.0 pints per acre rate to fields with a history of moderate to heavy disease pressure or with moderate to high numbers of spore balls present in the soil.

The product should be applied in-furrow, over the seed piece, immediately prior to covering over the seed piece with soil. The Omega 500F may be applied with a single nozzle placed directly above the seed piece, covering a band of soil approximately 8 inches in width. Alternately, two nozzles may be use. The first nozzle should be placed directly over the seed piece with the 2nd nozzle directed behind to apply Omega 500F to the soil that will be used to cover the seed piece.

Omega 500F will not provide complete control of this disease as the level of control varies according to the spore load in the soil and the cultivar being grown. Omega 500F, will, however, be effective against the pathogen when used as part of a comprehensive disease management program. For best results, apply Omega 500F using methods that maximum coverage of the rhizosphere in immediate proximity to the seed piece.

### Resistance Management:

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. Omega 500F is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides, which are at risk from disease resistance exhibit a single-site mode of fungicidal action. Omega 500F, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult your Federal or State Cooperative Extension Service representatives for guidance on the proper use of Omega 500F in programs that seek to minimize the occurrence of disease resistance to other fungicides. No known resistance has developed to Omega 500F and thus it is an excellent partner for those products which specify the use of a protectant or other fungicide which as a different mode of action.

### RESTRICTIONS:

- **DO NOT** apply more than 3.5 pints per acre per year.
- **DO NOT** apply within 14 days of harvest.
- Areas treated with Omega 500F may be replanted with crops on the federal label as soon as practical after the last application. All other crops not registered for this product can be planted 30 days after the last application.

**ALL APPLICABLE DIRECTIONS, RESTRICTIONS, AND PRECAUTIONS ON THE EPA REGISTERED OMEGA 500F LABEL (EPA Reg. No. 71512-1) MUST BE FOLLOWED. THIS LABEL MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF PESTICIDE APPLICATION.**

24(c) Registrant: ISK Biosciences Corporation  
7470 Auburn Rd., Suite A  
Concord, Ohio 44057

Warranty and Limitation of Damages: Seller warrants to those persons lawfully acquiring title to this product that at the time of the first sale of this product by seller that this product conformed to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with Seller's directions under normal conditions of use, and Buyers and users of this product assume the risk of any use contrary to such directions. **SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO.** In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made. Buyers and users of this product are responsible for all loss or damage from use or handling of this product which results from conditions beyond the control of Seller, including, but not limited to, incompatibility with products unless otherwise expressly provided in the Directions for Use of this product, weather conditions, cultural practices, moisture conditions or other environmental conditions outside of the ranges that are generally recognized as being conducive to good agricultural and/or horticultural practices.



## Section 24(c) Special Local Need Label

FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MAINE

**Omega® 500F Agricultural Fungicide  
For Suppression of Powdery Mildew Scab on Potatoes**

EPA Reg. No. 71512-1-100  
EPA SLN No. ME- xxxxxx

**This label expires and must not be distributed or used in accordance with this SLN registration after December 31, 2021**

### DIRECTIONS FOR USE

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This label must be in the possession of the user at the time of application.
- Follow all applicable directions, restrictions, Worker Protection Standard requirements, and precautions on the EPA-registered label.
- Failure to follow the directions for use and precautions on this label may result in poor pest control, crop injury, or illegal residues.

Crop	Pest	Rate of Application
Potatoes	Powdery Scab ( <i>Spongospora subterranea</i> )	In-furrow – 1.5 to 3.0 pints per Acre

### APPLICATION INSTRUCTIONS (PLANTING TIME TREATMENT)

Apply Omega 500F in at least 5 to 10 gallons of water per acre. Use Omega 500F at the 1.5 pint per acre rate on fields with a history of low levels of powdery scab or with low numbers of spore balls present in the soil. Apply the 3.0 pints per acre rate to fields with a history of moderate to heavy disease pressure or with moderate to high numbers of spore balls present in the soil.

The product should be applied in-furrow, over the seed piece, immediately prior to covering over the seed piece with soil. The Omega 500F may be applied with a single nozzle placed directly above the seed piece, covering a band of soil approximately 8 inches in width. Alternately, two

nozzles may be used. The first nozzle should be placed directly over the seed piece with the 2nd nozzle directed behind to apply Omega 500F to the soil that will be used to cover the seed piece.

Omega 500F will not provide complete control of this disease as the level of control varies according to the spore load in the soil and the cultivar being grown. Omega 500F, will, however, be effective against the pathogen when used as part of a comprehensive disease management program. For best results, apply Omega 500F using methods that maximum coverage of the rhizosphere in immediate proximity to the seed piece.

## **RESISTANCE MANAGEMENT**

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. Omega 500F is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides, which are at risk from disease resistance exhibit a single-site mode of fungicidal action. Omega 500F, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult your Federal or State Cooperative Extension Service representatives for guidance on the proper use of Omega 500F in programs that seek to minimize the occurrence of disease resistance to other fungicides. No known resistance has developed to Omega 500F and thus it is an excellent partner for those products which specify the use of a protectant or other fungicide which has a different mode of action.

## **RESTRICTIONS**

- **DO NOT** apply more than 3.5 pints per acre during each growing season.
- **DO NOT** apply within 14 days of harvest.
- Areas treated with Omega 500F may be replanted with crops on the federal label as soon as practical after the last application. All other crops not registered for this product can be planted 30 days after the last application.

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Omega® 500F trademark Ishihara Sangyo Kaisha, LTD  
The Syngenta logo is a trademark of a Syngenta Group Company

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24(c) Registrant:  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300

Label Code:

## Syngenta Trial Summary Sheet

Crop: Potato

Pest(s): Powdery Scab (*Spongospora subterranea*)

Product(s): Omega and Maxim

Trial Number: USNMF9262007

Protocol Number: None

### Major Points of the trial:

- Information is from Dr. Rob Davidson, Colorado State University.
- Trials were conducted in the San Luis Valley of Colorado
- This is part of a multi-year study (2002 – 2007)
- Rates tested have been 1.5 to 3 pts/A
- Major objective has been comparison of one versus two nozzles. Overall, the use of two nozzles is usually numerically better than one nozzle. The first nozzle is the typical location just after the seed piece drop. The second nozzle is a little aft and directed back toward the mixing area of the closing discs. The idea is to increase the distribution in the potato rhizosphere because we are using a product with very little soil mobility. The mix should be similar in the two nozzles (2006 we had a 45/55 split and in 2007 a 50/50 split).
- Interestingly, the treatment with Maxim and Omega was better than the treatment of just Omega. Maxim alone was equivalent to the untreated check.
- Colorado had a 24c for use of Omega in-furrow for powdery scab suppression based on results from previous work.
- Early indications are that Omega was successful as part of a full management approach in suppressing powdery scab. Omega should not be seen as a silver bullet without other management practices.

Data Table from Dr. Davidson with 2006 and 2007 data.



H:\Powdery Scab  
Review 2007\Omega

Written summary from Dr. Davison for 2007



H:\Powdery Scab  
Review 2007\Execsu

Powdery Scab graphs of 2007 data. Converted to pdf to save space.



H:\Powdery Scab  
Review 2007\Powder

Powdery scab data from 2002 – 2006 for reference.



H:\Powdery Scab  
Review 2007\Potato

Powdery scab sales sheet submitted in the spring but never approved (lost in the system).



H:\Powdery Scab  
Review 2007\Powder

PULL HERE TO OPEN ►

GROUP 29 FUNGICIDE

# Omega<sup>®</sup>500F

syngenta<sup>®</sup>

## Agricultural Fungicide

*Active Ingredient:*

Fluazinam: 3-chloro-*N*-[3-chloro-2,6-dinitro-4-trifluoromethyl phenyl]-5-trifluoromethyl-2-pyridinamine (CA) . . . . . 40.0%

*Other Ingredients:* . . . . . 60.0%

*Total:* . . . . . 100.0%

Contains 4.17 pounds fluazinam per gallon (500 grams per liter).

**KEEP OUT OF REACH OF CHILDREN.  
WARNING / AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use inside booklet.

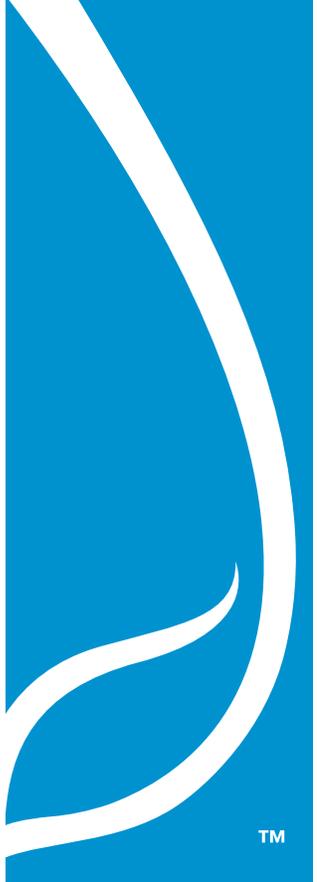
Read entire label carefully and use only as directed.

**EPA Reg. No. 71512-1-100 EPA Est. 1022-TN-001**

**Product of Korea Formulated in the USA**

**SCP 71512-1A-L1G 0914  
4046526**

**2.5 gallons**  
Net Contents



TM

<b>FIRST AID</b>	
<b>If on skin</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>NOTE TO PHYSICIAN</b>	
Probable mucosal damage may contraindicate the use of gastric lavage.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b>	
For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b>	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### **WARNING/AVISO**

Causes skin irritation. Harmful if absorbed through skin. Causes moderate eye irritation. Harmful if inhaled or swallowed. Do not get on skin or on clothing. Avoid contact with eyes. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before use. Do not take internally.

*continued...*

## PRECAUTIONARY STATEMENTS *(continued)*

### Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

#### Applicators, flaggers, and other handlers must wear:

- Coveralls worn over long-sleeved shirt and long pants
- Socks and chemical resistant footwear
- Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Protective eyewear

When mixing and loading, or when cleaning equipment, also wear a chemical resistant apron.

Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Do not allow contact of contaminated clothing with unprotected skin.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### Engineering Control Statements

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down. Do not allow contact between contaminated sprayer parts and unprotected skin. Ensure sprayer is washed down daily.

### User Safety Recommendations

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove contaminated clothing and wash clothing before reuse.

### Environmental Hazards

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.** Refer to use directions for each crop to see additional REI restrictions for high exposure activities (i.e., hand weeding) greater than 12 hours.

*continued...*

### **AGRICULTURAL USE REQUIREMENTS (continued)**

PPE required for early entry to the treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls worn over long-sleeved shirt and long pants
- Socks and chemical-resistant footwear
- Chemical-resistant gloves made of any waterproof material
- Protective eyewear

Omega 500F may cause allergic skin reactions in a small number of sensitive individuals. To prevent the potential for an allergic reaction: when entering treated crops, wear protective clothing (coveralls, socks and shoes) to avoid contact of unprotected skin with foliage; wash all protective clothing (coveralls) regularly, preferable daily; remove PPE immediately after leaving treated area, wash thoroughly, as soon as possible, and change into clean clothing; keep and wash PPE separately from other laundry; when entering treated crops, avoid contact of unprotected skin with treated foliage. People who have been sensitized to Omega 500F should not use or have further contact with the product.

#### **FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL.**

Omega 500F may be applied with all types of spray equipment normally used for ground applications. Aerial application or application through sprinkler irrigation systems is not allowed unless specific directions are given for a crop. See the crop table, and application and calibration instructions below.

Do not cultivate within 25 feet of permanent water bodies (lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, and estuaries) so as to allow growth of a vegetative filter strip.

Do not apply Omega 500F within 25 feet of permanent water bodies (lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, and estuaries). In the State of New York, do not apply within 100 feet of surface water. Do not apply Omega 500F by aerial equipment within 150 feet of marine/estuarine areas. Aerial application is prohibited in the State of New York.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed.

#### **Mixing and Spraying**

Omega 500F can be used effectively in dilute or concentrate sprays. Thorough, uniform coverage is essential for disease control.

Apply Omega 500F in sufficient water to obtain adequate coverage of the foliage. Gallonage to be used will vary with crop and amount of plant growth. Spray volume will usually range from 20 to 100 gallons per acre for dilute sprays, and 5 to 10 gallons per acre for concentrate ground and aerial sprays. For aerial applications, apply Omega 500F in a minimum of 5 gallons of water per acre.

Dosage rates on this label indicate pints of Omega 500F per acre, unless otherwise stated. Under conditions that favor disease development, the high rate specified and the shortest application interval should be used.

**NOTE:** Slowly invert container several times to assure uniform mixture.

The required amount of Omega 500F should be added slowly into the spray tank during filling. With concentrate sprays, premix the required amount of Omega 500F in a clean container and add to the spray tank as it is being filled. Keep agitator running when filling spray tank and during spray operations.

DO NOT allow spray mixture to stand overnight or for prolonged periods. Prepare only the amount of spray required for immediate use. Spraying equipment should be thoroughly cleaned immediately after the application.

#### **Tank Mix Compatibility**

Omega 500F is physically compatible (no nozzle or screen blockage) with many products recommended for control of diseases and insects on vegetable crops. Read and follow all manufacturers' label recommendations for the tank mix companion product. It is the applicator's responsibility to ensure that the companion product is EPA approved for use on the intended crop. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures. Omega 500F is generally compatible with other insecticides, fungicides, fertilizers and micronutrient products provided sufficient free water is available for dispersion of all the tank mix products. However, the physical compatibility of Omega 500F with tank mix partners should be evaluated before use. A jar test should be conducted with intended tank-mix pesticides prior to preparation of large volumes. Use the following procedure: 1) Pour the recommended proportions of the products into a suitable container of water, 2) Mix thoroughly and 3) Allow to stand 5 minutes. If the combination remains mixed or can be re-mixed readily, it is considered physically compatible. Any physical incompatibility in the jar test indicates that Omega 500F should not be used in the tank-mix.

#### **Rotational Crop (Plantback) Restrictions**

Areas treated with Omega 500F may be replanted with crops on this label immediately after the last treatment. All other crops can be planted 30 days after the last application.

#### **Field and Row Crops**

Apply Omega 500F in sufficient water to obtain adequate coverage of foliage. Gallonage to be used will vary with crop and amount of plant growth. Spray volume usually will range from 20 to 60 gallons per acre (200 to 600 liters per hectare) for dilute sprays and 5 to 10 gallons per acre (50 to 100 liters per hectare) for concentrate ground sprays. Application through sprinkler irrigation systems is not allowed unless specific directions are given for a crop. See application and calibration instruction below.

#### **Integrated Pest Management**

Omega 500F is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases. Omega 500F is recommended for use as part of an Integrated Pest Management (IPM) program, which may include the use of disease resistant crop varieties, cultural practices, biological control agents, pest scouting and disease forecasting systems aimed at preventing economic pest damage. Practices known to reduce disease development should be followed. Consult your State Cooperative Extension Service or local agricultural authorities for additional IPM strategies established in your area. Omega 500F may be used in State Agricultural Extension advisory (disease forecasting) programs that recommend application timing based on environmental factors which favor disease development.

#### **Resistance Management**

**GROUP 29 FUNGICIDE**

Some plant pathogens are known to develop resistance to products used repeatedly for disease control. Omega 500F is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Omega 500F has a multi-site mode of action that disrupts the energy production in the fungus. It is listed in FRAC code 29, as an uncoupler of oxidative phosphorylation. Some other fungicides, which are at risk from disease resistance, exhibit a single-site mode of fungicidal action. Omega 500F, with its multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of Omega 500F in programs that seek to minimize the occurrence of disease resistance to other fungicides. FRAC lists fluazinam as low risk for resistance and thus it is an excellent partner for those products that specify the use of a protectant or other fungicide that has a different mode of action.

## **Application and Calibration Techniques for Sprinkler Irrigation**

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set or portable (wheel move, side roll, end tow, or hand move) irrigation system(s). DO NOT apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

DO NOT apply Omega 500F through irrigation systems connected to a public water system. "Public water system" means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, should the need arise.

The irrigation water pipeline must be fitted with a functional, automatic, quick-closing check valve to prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low-pressure drain, located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source.

**Always inject Omega 500F into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.**

Pesticide injection equipment must be fitted with a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system, so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. DO NOT apply when wind speed favors drift beyond the area intended for treatment.

Omega 500F may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place, then refer to the appropriate directions provided for each type.

### **A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment**

For injection of pesticides, these continuously moving systems must use a positive displacement injection pump of either diaphragm or piston type, constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock and capable of injection at pressures approximately 2-3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Thoroughly mix recommended amount of this product for acreage to be covered into the same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until this product has been cleared from the last sprinkler head.

### **B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment**

With stationary systems, an effectively designed in-line venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides; however, a positive-displacement pump can also be used.

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a 30 to 45 minute period. Mix desired amount of Omega 500F for acreage to be covered with water so that the total mixture of this product plus water in the injection tank is equal to the quantity of water used during calibration.

Agitation is recommended. Omega 500F can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until this product has been cleared from last sprinkler head.

## DIRECTIONS FOR USE

Crop	Diseases	Rate per Acre	Instructions
<b>Apples</b>	<b>Diseases Controlled</b>	10 to 13.8 fl oz	<p>Omega 500F should be applied as a broadcast spray on a preventative basis. For scab control begin applications at green tip or when conditions are favorable for primary scab development. Repeat applications at 7- to 10-day intervals. The high rate and shortest intervals should be used for more susceptible varieties and heavy disease pressure.</p> <p>For control of flyspeck and sooty blotch begin applications before disease occurs and continue on a 7- to 10-day schedule. Use the higher rate and shorter interval when disease pressure is high.</p> <p>For control of bitter rot, black rot, Brooks spot, cedar apple rust, two-spotted spider mite and European red mite begin applications before disease occurs or mites are present, continue on a 7- to 10-day schedule and shorten application intervals when disease pressure or mite infestations are high. When Omega 500F is used as a cover spray, initiate the applications at petal fall and continue applications on a 7- to 10-day schedule to within 28 days of harvest.</p> <p>For diseases and mites that are only suppressed use the high rate of 13.8 fl oz and make applications on a 7-day interval.</p> <p>Omega 500F applied as cover sprays on a 7- to 10-day schedule will provide control/suppression of mites, however if applications of Omega 500F are discontinued then the application of a specific miticide may be required.</p> <p>Applications are based on a tree size requiring a dilute spray of 200 gallons per acre.</p> <p><b>Restrictions</b> DO NOT make more than 10 applications or apply more than 8.625 pints of Omega 500F per acre per growing season. DO NOT apply within 28 days of harvest. Restricted Entry Interval (REI) = 12 hours.</p>
	Apple Scab ( <i>Venturia inaequalis</i> )		
	Flyspeck ( <i>Zygothiala jamaicensis</i> ) Sooty blotch (disease complex)	10 to 13.8 fl oz	
	Bitter rot ( <i>Colletotrichum cingulata</i> ) Black rot ( <i>Botryosphaeria obtusa</i> ) Brooks spot ( <i>Mycosphaerella pomii</i> ) Cedar apple rust ( <i>Gymnosporangium juniperi-virginianae</i> )	13.8 fl oz	
	<b>Diseases Suppressed</b> Alternaria blotch ( <i>Alternaria mali</i> ) White rot ( <i>Botryosphaeria dothidea</i> ) Quince rust ( <i>Gymnosporangium clavipes</i> )	13.8 fl oz	
	<b>Mites Controlled</b> Two-spotted spider mite ( <i>Tetranychus urticae</i> ) European red mite ( <i>Panonychus ulmi</i> )	13.8 fl oz	
	<b>Mites Suppressed</b> Apple rust mite ( <i>Aculus schlectendali</i> )	13.8 fl oz	

Crop	Diseases	Rate per Acre	Instructions
<b>Brassica (Cole) Leafy Vegetables (Crop Group 5), plus Turnip Greens (in Crop Group 2)</b>	Club root <i>(Plasmodiophora brassicae)</i>	<b>Transplant:</b> 6.45 fl oz/ 100 gallons  <b>Soil Incorporation:</b> 2.6 pints	<b>Application Directions:</b> <b>Transplant Soil Drench:</b> Immediately after transplanting, make a single application at the rate listed here (6.45 fl oz/100 gal) using 3.4 fluid ounces of this transplant solution per plant.  <b>Soil Incorporation:</b> Alternatively, if desired and for soil with low infiltration rates, apply 2.6 pints per acre in a minimum bandwidth of 9 inches along the planting row and incorporate to a soil depth of 6 to 8 inches with a precision incorporator in the same operation. Apply in a water volume of at least 50 gallons per acre. Transplant the seedlings into the treated band. If planting into a bed, a broadcast application can be made prior to forming the bed.  <b>Note:</b> This product may delay the start of harvest by up to 8 days, cause some plant stunting, and shorten the harvest period, without adverse effects on the final yield.  <b>Restrictions:</b> DO NOT apply more than 3.85 pints per acre per growing season. DO NOT apply within 20 days of harvest on leafy greens such as mustard greens. DO NOT apply within 50 days of harvest on heading vegetables such as cabbage and broccoli. Turnip roots from turnip plants treated with Omega 500F must not be used for human or livestock consumption. Restricted Entry Interval, REI = 2 days, for workers conducting hand set irrigation activities and 12 hours for all other activities.
<p><b>Includes all members of Crop Group 5, Brassica (Cole) Leafy Vegetables:</b> broccoli, Chinese broccoli, broccoli raab (rapini), Brussels sprouts, cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage, cauliflower, cavalo broccolo, collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, and rape greens.</p> <p><b>Includes the following member of Crop Group 2, Leaves of Root and Tuber Vegetables:</b> turnip greens.</p>			

Crop	Diseases	Rate per Acre	Instructions
<b>Bushberry (Crop Subgroup 13-07B)</b>	Twig blight and fruit rot ( <i>Phomopsis vaccinii</i> )  Anthracnose (Ripe rot) ( <i>Colletotrichum acutatum</i> ) ( <i>C. gloeosporioides</i> )  Botrytis fruit rot ( <i>Botrytis cinerea</i> )	1.25 pints	<p><b>Application Directions:</b> Applications for fruit rots should be made on a 7- to 10-day interval, corresponding roughly to applications at green tip, pink tip, early bloom, full bloom, blossom drop and small green fruit to some blue fruit. Use adequate water to provide coverage of foliage, flowers and fruit.</p> <p><b>Restrictions:</b> DO NOT use more than 7.5 pints per acre per growing season. DO NOT use an adjuvant in the spray mixture with Omega 500F on this crop. DO NOT apply within 30 days of harvest (30-day PHI). Restricted Entry Interval, REI = 12 hours.</p>
<p><b>Includes all members of the Crop Subgroup 13-07B, Bushberry:</b> aronia berry, blueberry (highbush and lowbush), Chilean guava, currant (buffalo, black, red, and native), elderberry, European barberry, gooseberry, highbush cranberry, edible honeysuckle, huckleberry, jostaberry, juneberry, lingonberry, salal, sea buckthorn, and cultivars, varieties, and/or hybrids of these.</p>			
<b>Carrot</b>	Southern Blight ( <i>Sclerotium rolfsii</i> )  Sclerotinia Rot ( <i>Sclerotinia sclerotiorum</i> )  Alternaria Blight ( <i>Alternaria dauci</i> )	1 pint	<p><b>Application Directions:</b> The initial application for control of southern blight and sclerotinia rot should be made approximately 45 days prior to harvest or earlier if disease appears. If required, a second application can be made 14 days after the initial application. Apply in 30 to 50 gallons of water per acre as a directed band spray over the crop.</p> <p>For control of alternaria blight initiate applications when disease conditions are favorable for disease development or when disease symptoms first appear. Repeat applications as needed at a 7-day interval.</p> <p><b>Restrictions:</b> DO NOT make more than 4 applications per crop cycle. DO NOT apply within 7 days of harvest (7-day PHI). Restricted Entry Interval (REI) = 12 hours. DO NOT apply more than 4 pints per growing season.</p>

Crop	Diseases	Rate per Acre	Instructions
<b>Cucurbit Vegetables, Melon Subgroup 9A</b>	Downy Mildew Alternaria Leaf Spot Gummy Stem Blight	0.75 to 1.5 pints	<p>Initiate applications when conditions are favorable for disease development or when disease symptoms first appear. Repeat applications on a 7- to 10-day schedule. Use sufficient water to provide coverage of foliage.</p> <p>Use the low rate and longest interval for preventative applications and when disease pressure is low. Increase the rate and decrease the interval as disease pressure increases. For high disease pressure use the 1.5 pint rate on a weekly interval.</p> <p>DO NOT apply more than 9 pints per acre per growing season.            DO NOT apply within 30 days of harvest (PHI = 30 days).            Restricted Entry Interval (REI) = 12 hours.</p> <p>Omega 500F may be applied through sprinkler system irrigation equipment on cantaloupe. See irrigation use directions elsewhere on the Omega 500F label.</p>
<p><b>Includes all members of the Cucurbit Vegetables, Melon Crop Subgroup 9A, such as:</b> Citron melon; Muskmelon, including hybrids and/or varieties of <i>Cucumis melo</i> (including true cantaloupe, cantaloupe, casaba, Santa Claus melon, Crenshaw melon, honeydew melon, honey balls, Persian melon, golden pershaw melon, mango melon, pineapple melon, snake melon); and watermelon, including hybrids and/or varieties of <i>Citrullus</i> spp.</p>			
<b>Fruiting Vegetable, Pepper/Eggplant Subgroup 810B</b>	Phytophthora blight ( <i>Phytophthora capsici</i> )	1.0 to 1.5 pints	<p>The initial application may be made as a soil drench at transplanting at 1.5 pints/A. Foliar applications should begin 7 days after transplant and continue on a 7- to 14-day schedule. For foliar applications use the low rate and longest interval for preventative applications and when disease pressure is low. For moderate disease pressure use the 1 pint rate on a weekly interval. For high disease pressure use the 1.5 pint rate on a weekly interval.</p> <p>DO NOT make more than 9 pints per acre per growing season.            DO NOT apply within 30 days of harvest (PHI = 30 days).            Restricted Entry Interval (REI) = 12 hours.</p> <p>Omega 500F may be applied through sprinkler system irrigation equipment on peppers. See irrigation use directions elsewhere on the Omega 500F label.</p>
<p><b>Includes all members of Fruiting Vegetable, Pepper/Eggplant Crop Subgroup 8-10B, such as:</b> African eggplant; bell pepper; eggplant; martynia; nonbell pepper; okra; pea eggplant; pepino; roselle; scarlet eggplant; cultivars, varieties, and/or hybrids of these.</p>			

Crop	Diseases	Rate per Acre	Instructions
Ginseng	Rhizoctonia root rot ( <i>Rhizoctonia solani</i> )  Alternaria blight ( <i>Alternaria panax</i> )  Botrytis blight ( <i>Botrytis cinerea</i> )  White mold ( <i>Sclerotinia</i> spp.)	1 to 1.5 pints	<b>Application Directions:</b> For control of rhizoctonia root rot use 1 pt/A beginning at transplant then continue on a 14-day interval. For control of alternaria blight, botrytis blight, and white mold, use 1 pt/A beginning when the disease first appears or when conditions are favorable for disease development. Repeat applications as needed on a 7- to 14-day interval. Make a uniform application of the fungicide in a minimum of 100 gallons of water per acre. Under conditions favorable for severe disease development, use the 1.5 pint rate.  <b>Restrictions:</b> DO NOT apply more than 6 pints per growing season. DO NOT apply within 30 days of harvest (30-day PHI). Restricted Entry Interval, REI = 12 hours.
Edible-podded Legume Vegetables, (Crop Subgroup 6A, Except Peas)  Succulent Bean, includes Lima Bean (Crop Subgroup 6B, Except Peas)  Dry Beans (Crop Subgroup 6C, Except Peas and Soybeans)	White mold ( <i>Sclerotinia sclerotiorum</i> )  Gray mold ( <i>Botrytis cinerea</i> )	0.5 to 0.85 pints	<b>Application Directions:</b> For control of white and gray molds, make the first application at 10-30% bloom (i.e. when 10-30% of the plants have at least one (1) open bloom). If needed, a second application may be applied 7 to 10 days later. Use adequate water to provide coverage of foliage and flowers. Under conditions favorable for severe disease development, use the 0.85 pint rate.  <b>Restrictions:</b> DO NOT use more than 1.75 pints per acre per growing season. DO NOT apply within 14 days of harvest for edible-podded and succulent beans (14-day PHI). DO NOT apply within 30 days of harvest for dry and lima beans (30-day PHI). Restricted Entry Interval, REI = 12 hours.  Omega 500F may be applied through sprinkler system irrigation equipment on beans. See irrigation use directions preceding this section.

**Edible-podded Legume Vegetables Subgroup 6A, except pea includes:** Bean *Phaseolus* spp. runner bean, snap bean, wax bean; Bean *Vigna* spp. asparagus bean, Chinese longbean, moth bean, yardlong bean, jackbean, sword bean.

**Succulent Shelled Pea and Bean Subgroup 6B, except pea includes:** Bean *Phaseolus* spp. lima bean (green), broad bean (succulent); Bean *Vigna* spp. blackeyed pea, cowpea, southern pea.

**Dried Shelled Pea and Bean (Except Soybean) Subgroup 6C, except pea includes dried cultivars of the following beans:** Bean *Lupinus* spp. grain lupine, sweet lupine, white lupine, white sweet lupine; Bean *Phaseolus* spp. field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean; Bean *Vigna* spp. adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, broad bean; chick pea, garbanzo bean; guar; lablab bean.

Crop	Diseases	Rate per Acre	Instructions
Lettuce, Head and Leaf	Sclerotinia Drop ( <i>Sclerotinia minor</i> , <i>Sclerotinia sclerotiorum</i> )	1 to 1.5 pints	<p><b>Application Directions:</b> Omega 500F should be applied at 1 to 1.5 pints per acre as either a foliar band or broadcast spray or as a soil drench application at thinning. Use at least 50 gallons of water per acre. Use the higher rate in fields with a history of moderate to severe disease incidence. Omega may be used with all types of lettuce, however, DO NOT apply after thinning as phytotoxicity may occur.</p> <p><b>Restrictions</b> DO NOT apply more than 1.5 pints per growing season. DO NOT use an adjuvant with Omega 500F on this crop. DO NOT apply within 30 days of harvest (30-day PHI). For use on lettuce only in the State of Arizona and in the Imperial Valley of California. Restricted Entry Interval, REI = 12 hours.</p>
Onion, Bulb (Crop Subgroup 3-07A)	Botrytis leaf blight ( <i>Botrytis squamosa</i> )  Botrytis neck rot ( <i>Botrytis allii</i> )  Downy mildew ( <i>Peronospora destructor</i> )  Purple blotch ( <i>Alternaria porri</i> )	1 pint	<p><b>Application Directions:</b> Initiate applications when conditions are favorable for disease development or when first disease symptoms appear. Repeat applications on a 7- to 10-day schedule. Use sufficient water to obtain adequate coverage but no less than 5 gallons per acre.</p> <p><b>Restrictions:</b> DO NOT make more than 6 applications per growing cycle. DO NOT use an adjuvant with Omega 500F on this crop. DO NOT apply within 7 days of harvest (7-day PHI). Restricted Entry Interval, REI = 24 hours for hand weeding activities and 12 hours for all other activities.</p> <p>Omega 500F may be applied through sprinkler system irrigation equipment on onions. See irrigation use directions preceding this section.</p>
<p><b>Includes all members of the Crop Subgroup 3-07A, Onion, Bulb, such as:</b> daylily, bulb; fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; lily, bulb; onion, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb; and cultivars, varieties, and/or hybrids of these.</p>			

Crop	Diseases	Rate per Acre	Instructions
Peanuts	Sclerotinia blight ( <i>Sclerotinia minor</i> )	1 to 1.5 pints	<p><b>Application Directions:</b> Apply at 45-70 days after planting or when conditions become conducive to disease development, then make a second application approximately 3-4 weeks later. If disease conditions remain favorable, make a third application approximately 3-4 weeks after the second. If the high rate was used for the first two applications use the low rate for the third application.</p> <p><b>Restrictions:</b> DO NOT use more than 4 pints per acre during any single growing season. DO NOT apply within 30 days of threshing for harvest. DO NOT allow livestock to graze in treated areas. DO NOT feed hay or threshings from treated field to livestock. DO NOT apply by aerial application equipment. Restricted Entry Interval, REI = 12 hours.</p> <p>Omega 500F may be applied through sprinkler system irrigation equipment. Use 1 1/2 pints of product per acre in solid set, portable wheel move, center pivot, motorized lateral move or traveling gun sprinkler irrigation equipment. See irrigation use directions preceding this section.</p>

Crop	Diseases	Rate per Acre	Instructions
Potato	Late blight ( <i>Phytophthora infestans</i> )	5.5 fl oz	<p><b>Application Instructions:</b> For late blight and white mold control, begin applications when the plants are 6 to 8 inches tall or when conditions favor disease development. Repeat applications at intervals of 7 to 10 days. When white mold pressure is low to moderate, use 5 1/2 fluid ounces. When conditions favor moderate to high white mold pressure, increase the rate to 8 fluid ounces.</p> <p><b>Restrictions:</b> DO NOT apply more than 3.5 pints per acre during each growing season. DO NOT apply within 14 days of harvest. Restricted Entry Interval, REI = 12 hours.</p> <p>Omega 500F may be applied by aerial application (except in the State of New York) or through sprinkler system irrigation equipment on potatoes. See irrigation use directions preceding this section.</p>
	White mold ( <i>Sclerotinia sclerotiorum</i> )	5.5 to 8 fl oz	
Soybean	White Mold ( <i>Sclerotinia sclerotiorum</i> )	0.75 to 1.0 pints	<p><b>Application Instructions:</b> The first application of Omega 500F should be applied at R1 (early bloom) to R2 (full bloom) stage of development and, if needed, again 10- to 14-days later at early pod formation (R3). As a preventative spray or with conditions favoring low disease pressure use the low rate. For conditions favoring moderate to high disease development use the high rate.</p> <p><b>Restrictions</b> DO NOT apply more than 2 pints per acre per growing season. DO NOT allow livestock to graze treated areas. DO NOT feed hay from treated fields to livestock. DO NOT apply after growth stage R3, early pod formation. Restricted Entry Interval, REI = 12 hours.</p> <p>Omega 500F may be applied by aerial application to soybeans, except in the State of New York.</p>

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

### **Pesticide Storage**

Store in original container, in a secured, dry place separate from food and feed.

### **Pesticide Disposal**

Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### **Container Handling**

Non-refillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Omega® 500F is a registered trademark of Ishihara Sangyo Kaisha, LTD.

The ALLIANCE FRAME   
the SYNGENTA Logo and the PURPOSE ICON   
are Trademarks of a Syngenta Group Company.

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For non-emergency (e.g., current product information) call  
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, North Carolina 27419-8300

**SCP 71512-1A-L1G 0914  
4046526**

GROUP 29 FUNGICIDE



## Agricultural Fungicide

Active Ingredient:

Fluazinam: 3-chloro-*N*-[3-chloro-2,6-dinitro-4-trifluoromethyl)phenyl]-5-trifluoromethyl-2-pyridinamine (CA) . . . . . 40.0%

Other Ingredients: . . . . . 60.0%

Total: . . . . . 100.0%

Contains 4.17 pounds fluazinam per gallon (500 grams per liter).

EPA Reg. No. 71512-1-100

EPA Est. 1022-TN-001

See additional precautionary statements and directions for use inside booklet.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

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Manufactured for:  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, North Carolina 27419-8300

SCP 71512-1A-L1G 0914  
4046526

**2.5 gallons**  
Net Contents

## KEEP OUT OF REACH OF CHILDREN. WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

### FIRST AID

**If on skin:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. **If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. **If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. **If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything to an unconscious person. **NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**HOT LINE NUMBER:** For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372.

### Precautionary Statements

Hazards to Humans and Domestic Animals

#### WARNING/AVISO

Causes skin irritation. Harmful if absorbed through skin. Causes moderate eye irritation. Harmful if inhaled or swallowed. Do not get on skin or on clothing. Avoid contact with eyes. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before use. Do not take internally.

**Environmental Hazards:** This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.

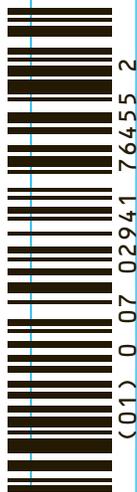
## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

**Pesticide Storage:** Store in original container, in a secured, dry place separate from food and feed.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Handling:** Non-refillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.



## OMEGA® 500F

Date: 7/7/2015

Replaces: 2/17/2015

### 1. PRODUCT IDENTIFICATION

Product identifier on label: **OMEGA® 500F**  
Product No.: A7087F  
Use: Fungicide  
Manufacturer: Syngenta Crop Protection, LLC  
Post Office Box 18300  
Greensboro NC 27419  
Manufacturer Phone: 1-800-334-9481

**Emergency Phone: 1-800-888-8372**

### 2. HAZARDS IDENTIFICATION

Classifications: Skin Corrosion/Irritation: Category 2  
Skin Sensitizer: Category 1B  
Eye Damage/Irritation: Category 2B

Signal Word (OSHA): Warning

Hazard Statements: Causes skin irritation  
May cause an allergic skin reaction  
Causes eye irritation

Hazard Symbols:



Precautionary Statements: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice.  
Avoid breathing mist, vapors, spray.  
Wash hands and face thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves, protective clothing, eye protection.  
If on skin: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice.  
See Section 4 First Aid Measures.  
Take off contaminated clothing and wash it before reuse.  
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: None

## OMEGA® 500F

Date: 7/7/2015  
Replaces: 2/17/2015

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	Common Name	CAS Number	Concentration
Other ingredients	Other ingredients	Trade Secret	60%
3-chloro-N-[3-chloro-2,6-dinitro-4-trifluoromethyl)phenyl]-5-trifluoromethyl-2-pyridinamine	Fluazinam	79622-59-6	40.0%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

**4. FIRST AID MEASURES**

Have the product container, label or Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison control center or doctor, or going for treatment.

- Ingestion:** If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- Eye Contact:** If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Skin Contact:** If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.
- Inhalation:** If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Most important symptoms/effects:

- Eye irritation
- Skin irritation
- Allergic skin reaction

Indication of immediate medical attention and special treatment needed:

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

**5. FIRE FIGHTING MEASURES**

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

## OMEGA® 500F

Date: 7/7/2015

Replaces: 2/17/2015

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions in Protective Equipment Section. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

### 7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities:

Not Applicable

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.**

**FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Other ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Fluazinam	Not Established	Not Established	0.7 mg/m <sup>3</sup> TWA	Manufacturer

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

**Ingestion:**

Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

**Eye Contact:**

Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Skin Contact:**

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

**Inhalation:**

A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

## OMEGA® 500F

Date: 7/7/2015  
Replaces: 2/17/2015

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In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Yellow liquid  
Odor: Pungent  
Odor Threshold: Not Available  
pH: 6.0 - 8.0  
Melting point/freezing point: Not Applicable  
Initial boiling point and boiling range: Not Available  
Flash Point (Test Method): Not Available  
Flammable Limits (% in Air): Not Available  
Flammability: Not Available  
Vapor Pressure: Fluazinam 3.8 x 10<sup>-8</sup> mgHg @ 68°F (20°C)  
Vapor Density: Not Available  
Relative Density: 1.23 - 1.26 g/ml  
Solubility (ies): Fluazinam Insoluble in/with H<sub>2</sub>O (0.1 ppm @ 68°F (20°C))  
Partition coefficient: n-octanol/water: Not Available  
Autoignition Temperature: Not Available  
Decomposition Temperature: Not Available  
Viscosity: Not Available  
Other: None

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### 10. STABILITY AND REACTIVITY

Reactivity: Not reactive.  
Chemical stability: Stable under normal use and storage conditions.  
Possibility of hazardous reactions: Will not occur.  
Conditions to Avoid: Avoid contact with heat or open flame.  
Incompatible materials: None known.  
Hazardous Decomposition Products: None known.

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### 11. TOXICOLOGICAL INFORMATION

#### Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation, Skin irritation

Delayed, immediate and chronic effects of exposure: Eye irritation, Skin irritation, Allergic skin reaction

## OMEGA® 500F

Date: 7/7/2015  
Replaces: 2/17/2015

### Numerical measures of toxicity (acute toxicity/irritation studies (finished product))

Ingestion:	Oral (LD50 Rat) :	> 5000 mg/kg body weight
Dermal:	Dermal (LD50 Rat) :	> 2000 mg/kg body weight
Inhalation:	Inhalation (LC50 Rat) :	> 23 mg/l air - 4 hours
Eye Contact:	Moderately Irritating (Rabbit)	
Skin Contact:	Moderately Irritating (Rabbit)	
Skin Sensitization:	Demonstrated potential to produce dermal sensitization.	

### Reproductive/Developmental Effects

Fluazinam: Did not show teratogenic effects in animal experiments.

### Chronic/Subchronic Toxicity Studies

Fluazinam: Not available.

### Carcinogenicity

Fluazinam: Did not show carcinogenic or mutagenic effects in animal experiments.

Chemical Name	NTP/IARC/OSHA Carcinogen
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Other ingredients	No
3-chloro-N-[3-chloro-2,6-dinitro-4-trifluoromethyl)phenyl]-5-trifluoromethyl-2-pyridinamine	No

### Other Toxicity Information

None

### Toxicity of Other Components

Other ingredients  
Not Applicable

### Target Organs

#### Active Ingredients

Fluazinam: Not available.

#### Inert Ingredients

Other ingredients: Not Applicable

## 12. ECOLOGICAL INFORMATION

### Eco-Acute Toxicity

Fluazinam:

- Fish (Rainbow Trout) 96-hour LC50 36 ppb
- Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 180 ppb
- Green Algae 4-day EC50 0.18 ppm
- Bird (Bobwhite Quail) 14-day LD50 1782 mg/kg

## OMEGA® 500F

Date: 7/7/2015  
Replaces: 2/17/2015

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### Environmental Fate

#### Fluazinam:

The information presented here is for the active ingredient, fluazinam.

Environmental Fate and Distribution: Solid with low volatility. The substance is essentially insoluble in water. The substance has low mobility in soil.

Persistence and Degradation: There is evidence of degradation in soil and water.

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### 13. DISPOSAL CONSIDERATIONS

#### Disposal:

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Under certain circumstances, discarded product may exhibit TCLP hazardous characteristics. A hazardous waste determination should be done on a case by case basis.

Listed Waste: Not Applicable

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### 14. TRANSPORT INFORMATION

#### DOT Classification

Ground Transport - NAFTA  
Not regulated

#### Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fluazinam), Marine Pollutant

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

Air Transport

Proper Shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fluazinam)

Hazard Class: Class 9

Identification Number: UN 3082

Packing Group: PG III

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### 15. REGULATORY INFORMATION

#### Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Warning: Causes skin irritation. Harmful if absorbed through skin. Causes moderate eye irritation. Harmful if inhaled or swallowed. Do not get on skin or on clothing. Avoid contact with eyes. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before use. Do not take internally.

#### EPA Registration Number(s):

71512-1-100

#### EPCRA SARA Title III Classification:

## OMEGA® 500F

Date: 7/7/2015  
Replaces: 2/17/2015

Section 311/312 Hazard Classes: Acute Health Hazard  
Chronic Health Hazard

Section 313 Toxic Chemicals: None

CERCLA/SARA 304 Reportable Quantity (RQ):

None

RCRA Hazardous Waste Classification (40 CFR 261):

Not Applicable

TSCA Status:

Exempt from TSCA, subject to FIFRA

### 16. OTHER INFORMATION

#### NFPA Hazard Ratings

Health: 2  
Flammability: 1  
Instability: 0

#### HMIS Hazard Ratings

Health: 2  
Flammability: 1  
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme
*	Chronic

Syngenta Hazard Category: C,S

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 5/11/2001

Revision Date: 7/7/2015

Replaces: 2/17/2015

Section(s) Revised: 2

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

## **Proposed Administrative Consent Agreement Background Summary**

**Subject:** Moark  
272 Plains Road  
Turner, Maine 04282

**Date of Incident(s):** August 8, 2014

**Background Narrative:** Board staff received a complaint that this egg producing facility was applying fly bait outdoors where it could drain into a nearby stream and birds had been seen dying after eating the bait. An inspector followed up and completed an inspection. Through that inspection it was determined that the Moark employee's application rate exceeded the maximum label rate. The company's position is that label does not specify that the Golden Malrin fly bait must be evenly distributed across the fly feeding area, and that the fly feeding area was of sufficient area so as to allow for the amount of product applied.

The inspector also determined that the applicator wore leather gloves and the personal protective equipment required by the label specified chemical resistant gloves made of any waterproof material.

The inspector could not substantiate the dead birds allegation or determine that the bait was entering streams.

### **Summary of Violation(s):**

- 7 U.S.C. § 136j (a)(2)(G): Unlawful acts-to use any registered pesticide in a manner inconsistent with its labeling.
- 7 M.R.S. § 606 (2)(B): Use or cause to be used any pesticide in a manner inconsistent with its labeling or with rules of the board, if those rules further restrict the uses provided on the labeling.
- 22 M.R.S. § 1471-D(8)(F): Has made a pesticide recommendation, use or application, or has supervised such use or application, inconsistent with the labelling or other restrictions imposed by the board.

**Rationale for Settlement:** The application rate exceeded the maximum label rate and the applicator did not have the correct personal protective equipment required by the pesticide label.

**Attachments:** Proposed Consent Agreement

**STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, FOOD AND RURAL RESOURCES  
BOARD OF PESTICIDES CONTROL**

Moark	)	ADMINISTRATIVE CONSENT AGREEMENT
272 Plains Road	)	AND
Turner, Maine 04282	)	FINDINGS OF FACT

This Agreement, by and between Moark (hereinafter called the Company) and the State of Maine Board of Pesticides Control (hereinafter called the "Board"), is entered into pursuant to 22 M.R.S. §1471-M (2)(D) and in accordance with the Enforcement Protocol amended by the Board on December 13, 2013.

The parties to this Agreement agree as follows:

1. That on August 4, 2014, the Board received information from a complaint that the company was applying excessive amounts of fly bait along the roads on their property in Turner and that the pesticides were draining into a local stream.
2. That on August 8, 2014, in response to the call in paragraph one, a Board inspector conducted a follow-up inspection with the Company applicator.
3. That from the inspection described in paragraph two, it was determined that a Company applicator applied Golden Malrin fly bait, EPA registration number 2724-274, to roadway and feed storage sites on August 8, 2014, at their 272 Plains Road Turner location.
4. That from the inspection described in paragraph two, the inspector could not substantiate that the fly bait was draining into the local stream. but it was determined that the applicator applied the Golden Malrin granular fly bait at an application rate of 42.7 ounces of bait per 500 square feet.
5. That the Golden Malrin label specifies that the rate of application of granular fly bait is approximately 4 ounces per 500 square feet of fly feeding area.
6. That the Board's position is that the Goldin Marlin was applied in a manner in which it was concentrated around the road areas at a rate that exceeded the label application rates.
7. That it is the Company's position that label does not specify that the Golden Malrin must be evenly distributed across the fly feeding area, and that the fly feeding area was of sufficient area so as to allow for the amount of product applied.
8. That it is the Board's position that the circumstances described in paragraphs one through six constituted the use of a pesticide inconsistent with the product labeling and is a violation of 7 U.S.C. § 136j (a)(2)(G), 7 M.R.S. § 606 (2)(B) and 22 M.R.S. § 1471-D(8)(F).
9. That it is the Company's position that its use of Golden Malrin was consistent with the intent of the label and that no violations relative the application rate occurred.
10. That from the inspection described in paragraph two, the inspector determined that the company applicator used leather gloves when loading the fly bait to make the application described in paragraph three.

11. That the Golden Malrin label requires applicators to wear chemical resistant gloves made of any water proof material when handling the fly bait.
12. That 7 U.S.C. § 136j (a)(2)(G), 7 M.R.S. § 606 (2)(B) and 22 M.R.S. § 1471 D (8)(F) require that pesticides be applied consistent with their labeling.
13. That the Board and the Company agree that the actions described in paragraphs two, three, ten, eleven and twelve constitute use of a pesticide in a manner inconsistent with its labeling and, as such, is a violation of 7 U.S.C. § 136j (a)(2)(G), 7 M.R.S. § 606 (2)(B) and 22 M.R.S. § 1471 D (8)(F).
14. That the Board has regulatory authority over the activities described herein.
15. That while the Company does not agree with the Board's position concerning the Golden Marlin application rate, it enters into this agreement for the purposes of resolving the matter.
16. That the Company expressly waives:
  - A. Notice of or opportunity for hearing;
  - B. Any and all further procedural steps before the Board; and
  - C. The making of any further findings of fact before the Board.
17. That this Agreement shall not become effective unless and until the Board accepts it.
18. That in consideration for the release by the Board of the causes of action which the Board has against the Company resulting from the violations alleged by the Board in paragraphs eight and thirteen, the Company agrees to pay a penalty to the State of Maine in the sum of \$650 (Please make checks payable to Treasurer, State of Maine).

IN WITNESS WHEREOF, the parties have executed this Agreement of two pages.

MOARK

By: \_\_\_\_\_ Date: \_\_\_\_\_

Type or Print Name: \_\_\_\_\_

BOARD OF PESTICIDES CONTROL

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Henry Jennings, Director

APPROVED:

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Mark Randlett, Assistant Attorney General

## **Proposed Administrative Consent Agreement Background Summary**

**Subject:** Kendall Cooper  
349 Paris Hill Road  
Buckfield, ME 04220

**Date of Incident(s):** May 21, 2015

### **Background Narrative:**

Through information gathered from a restricted use pesticide dealer inspection, it was determined that a private applicator with an expired private applicator license and expired certification, purchased Lumax EZ Herbicide, a restricted use pesticide.

### **Summary of Violation(s):**

CMR 01-026 Chapter 40 Section 1(D): Restricted use pesticides may be purchased and used only by applicators licensed by the Board as provided in Chapters 31 and 32.

### **Rationale for Settlement:**

The staff compared the violation to similar cases settled by the Board in formulating a penalty proposal.

**Attachments:** Proposed Consent Agreement

**STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY  
BOARD OF PESTICIDES CONTROL**

Kendall Cooper	)	ADMINISTRATIVE CONSENT AGREEMENT
349 Paris Hill Road	)	AND
Buckfield, ME 04220	)	FINDINGS OF FACT

This Agreement, by and between Kendall Cooper and the State of Maine Board of Pesticides Control (hereinafter called the "Board"), is entered into pursuant to 22 M.R.S. §1471-M (2)(D) and in accordance with the Enforcement Protocol amended by the Board on December 13, 2013.

The parties to this Agreement agree as follows:

1. That on August 10, 2015, a Board inspector conducted a routine pesticide dealer inspection with the Maine Seed Company in Wales.
2. That during the inspection in paragraph one, the inspector collected and reviewed invoice # 275. That invoice along with the company's restricted use pesticide sales log, indicated that Cooper purchased twenty 2 ½ gallon containers of Lumax EZ Herbicide and was invoiced for that purchase on May 21, 2015.
3. That during the inspection in paragraph one, the inspector also collected and reviewed invoice # 369. That invoice along with the company's restricted use pesticide sales log, indicated that Cooper purchased thirty 2 ½ gallon containers of Lumax EZ Herbicide and was invoiced for that purchase on May 29, 2015.
4. That Lumax EZ Herbicide (EPA reg. # 100-1442) is classified as a restricted use pesticide.
5. That CMR 01-026 Chapter 40 Section 1(D) specifies restricted use pesticides may be purchased and used only by applicators licensed by the Board as provided in Chapters 31 and 32 of the Board's regulations.
6. That Cooper was not certified or licensed at the time of the pesticide purchases described in paragraphs two and three.
7. That the circumstances described in paragraphs one through six constitute two separate violations of CMR 01-026 Chapter 40 Section 1(D)
8. That the Board has regulatory authority over the activities described herein.
9. That Cooper expressly waives:
  - A. Notice of or opportunity for hearing;
  - B. Any and all further procedural steps before the Board; and
  - C. The making of any further findings of fact before the Board.
10. That this Agreement shall not become effective unless and until the Board accepts it.

11. That in consideration for the release by the Board of the cause of action which the Board has against Cooper resulting from the violation referred to in paragraph seven, Cooper agrees to pay a penalty to the State of Maine in the sum of \$200. (Please make checks payable to Treasurer, State of Maine).

IN WITNESS WHEREOF, the parties have executed this Agreement of two pages.

KENDALL COOPER

By: \_\_\_\_\_ Date: \_\_\_\_\_

Type or Print Name: \_\_\_\_\_

BOARD OF PESTICIDES CONTROL

By: \_\_\_\_\_ Date: \_\_\_\_\_

Henry Jennings, Director

APPROVED:

By: \_\_\_\_\_ Date: \_\_\_\_\_

Mark Randlett, Assistant Attorney General

## **Proposed Administrative Consent Agreement Background Summary**

**Subject:** Ronald Winslow  
Orkin Exterminating Company Inc.  
960 Riverside Street  
Portland, Maine 04103

**Date of Incident(s):** October 26, 2015

**Background Narrative:** On November 20, 2015, the Board received a complaint call from a Sweden resident. The caller stated that when she arrived home from work there was an Orkin sign posted on her property indicating the company applied a pesticide. The Sweden resident was not an Orkin customer. A Board inspector met with both the Sweden resident and personnel from Orkin and confirmed that an Orkin applicator did apply two insecticides to the exterior of the resident's home. Although Orkin had a policy in place to positively identify the proper treatment site by checking the customer's electric meter number, the Orkin applicator told the inspector he did not check the last two digits of the electric meter number on the caller's house. Orkin acknowledged the wrong property was treated.

**Summary of Violation(s):**

- CMR 01-026 Chapter 20 Section 6(D)2 No person may apply a pesticide to a property of another unless prior authorization for the pesticide application has been obtained from the owner, manager or legal occupant of that property. The term "legal occupant" includes tenants of rented property.
  
- CMR 01-026 Chapter 20 Section 7 Commercial applicators making outdoor treatments to residential properties must implement a system, based on Board approved methods, to positively identify the property of their customers. The Board shall adopt a policy listing approved methods of positive identification of the proper treatment site.

**Rationale for Settlement:** The staff compared the violation to similar cases settled by the Board and the Company's violation history in formulating a penalty proposal.

**Attachments:** Proposed Consent Agreement

**STATE OF MAINE**  
**DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY**  
**BOARD OF PESTICIDES CONTROL**

In the Matter of:	)	ADMINISTRATIVE CONSENT
Orkin Exterminating Company Inc.	)	AGREEMENT
960 Riverside Street	)	AND
Portland, Maine 04103	)	FINDINGS OF FACT

This Agreement by and between Orkin Exterminating Company Inc. (hereinafter called the "Company") and the State of Maine Board of Pesticides Control (hereinafter called the "Board") is entered into pursuant to 22 M.R.S. §1471-M (2)(D) and in accordance with the Enforcement Protocol amended by the Board on December 13, 2013.

The parties to this Agreement agree as follows:

1. That the Company provides commercial pest control services and has the firm license number SCF 15034 issued by the Board pursuant to 22 M.R.S. § 1471-D (1)(B).
2. That on November 20, 2015, a homeowner from Sweden called the Board to report that the Company made a pesticide application to the exterior of her home. The caller was not a customer of the Company.
3. That in response to the call in paragraph two, a Board inspector called the homeowner and left her a voice message. The homeowner called the inspector back and a meeting was arranged for December 4, 2015.
4. That on December 4, 2015, the inspector met with the caller at her home on 817 Knights Hill Road in Sweden to investigate the alleged unauthorized pesticide application. The inspector interviewed the homeowner.
5. That from the investigation described in paragraph four, the inspector documented a service order sent by the Company to the homeowner that listed pesticide applications made to her property on October 26, 2015. Additionally, the inspector took digital photos of the sign the Company posted on the caller's property the day of the application.
6. That on December 11, 2015, the inspector conducted a follow up investigation with the Company and met with the manager of the Company's Portland branch. The Company's service manager and the Company applicator that made the application described in paragraphs two and five were also present.
7. That from the investigation described in paragraph six, the inspector documented through interviews and a copy of the original Company work order, that the Company applicator intended to treat their customer at 4 Harmon Lane in Sweden. He incorrectly made the application several driveways down at 817 Knights Hill Road in Sweden. Two insecticides were applied. Ever Green Dust was applied as a crack and crevice treatment to the exterior of the house and Talstar Professional insecticide was applied as an exterior foundation perimeter treatment.
8. That CMR 01-026 Chapter 20 Section 6(B) requires prior consent from the property owner before a person can apply pesticides to the property of another.
9. That the Company did not have the homeowner's authorization to make pesticide applications at 817 Knights Hill Road in Sweden

10. That the circumstances described in paragraphs one through nine constitute a violation of CMR 01-026 Chapter 20 Section 6(B).
11. That CMR 01-026 Chapter 20 Section 7 requires the positive identification of the proper treatment site when commercial applicators are making outdoor treatments to residential properties. Companies must implement a system, based on Board approved methods, to positively identify the property of their customers. The Board adopted a policy listing approved methods of positive identification of the proper treatment site.
12. That during the investigation described in paragraph six, the Company applicator told the inspector that although he looked at the electric meter number when he was at the wrong property at 817 Knights Hill Road, he did not read the last two digits of that electric meter number. The first six digits of the two residences were the same, the last two digits were not. For this reason, at the field level, the Company applicator did not comply with the requirement to positively identify the proper treatment site.
13. That the circumstances in paragraphs one through seven, eleven, and twelve constitute a violation of CMR 01-026 Chapter 20 Section 7.
14. That the Board has regulatory authority over the activities described herein.
15. That the Company expressly waives:
  - A. Notice of or opportunity for hearing;
  - B. Any and all further procedural steps before the Board; and
  - C. The making of any further findings of fact before the Board.
16. That this Agreement shall not become effective unless and until the Board accepts it.

That in consideration for the release by the Board of the cause of action which the Board has against the Company resulting from the violations referred to in paragraphs ten and thirteen, the Company agrees to pay a penalty to the State of Maine in the sum of \$1,000.00. (Please make checks payable to Treasurer, State of Maine).

IN WITNESS WHEREOF, the parties have executed this Agreement of two pages.

ORKIN EXTERMINATING COMPANY INC.

By: \_\_\_\_\_ Date: \_\_\_\_\_

Type or Print Name: \_\_\_\_\_

BOARD OF PESTICIDES CONTROL

By: \_\_\_\_\_ Date: \_\_\_\_\_

Henry Jennings, Director

APPROVED:

By: \_\_\_\_\_ Date: \_\_\_\_\_

Mark Randlett, Assistant Attorney General

## **Proposed Administrative Consent Agreement Background Summary**

**Subject:** James Vickerson  
Sports Fields Inc.  
PO Box 118  
Monmouth, ME 04259-0118

**Date of Incident(s):** July 19, 2013; August 13, 2013; May 18, 2014; August 12, 2014

### **Background Narrative:**

Chapter 27 of the Board's rules establishes procedures and standards for applying pesticides in school buildings and on school grounds. Section 6 of that chapter specifies the requirements for commercial pesticide applicators making applications in school buildings or on school grounds. Commercial pesticide applicators must, within one business day of each pesticide application, provide the IPM Coordinator with specific information about the pesticides applied. While conducting routine inspections at schools to monitor compliance with this regulation, inspectors determined that Sports Fields Inc. was not in compliance with this requirement.

### **Summary of Violation(s):**

CMR 01-026 Chapter 27 Section 6(B): Commercial pesticide applicators shall, within one business day of each pesticide application, provide the IPM Coordinator with a written record of the application including the date, time, location, trade name of the product applied, EPA Registration number and the name of the licensed applicator. If the product has no EPA Registration number then the applicator will provide a copy of the label.

**Rationale for Settlement:** The commercial pesticide application company was not providing the required pesticide application information to schools where they made applications. The consent agreement is intended to be the impetus for the company to provide application information to schools where they make applications.

**Attachments:** Proposed Consent Agreement

**STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION, AND FORESTRY  
BOARD OF PESTICIDES CONTROL**

James Vickerson	)	ADMINISTRATIVE CONSENT
Sports Fields Inc.	)	AGREEMENT
PO Box 118	)	AND
Monmouth, ME 04259-0118	)	FINDINGS OF FACT

This Agreement, by and between Sports Fields Inc. (hereinafter called the Company) and the State of Maine Board of Pesticides Control (hereinafter called the "Board"), is entered into pursuant to 22 M.R.S. §1471-M (2)(D) and in accordance with the Enforcement Protocol amended by the Board on December 13, 2013.

The parties to this Agreement agree as follows:

1. That on September 22, 2014, a Board inspector conducted a routine school inspection at RSU 52, located at 486 Turner Center Road in Turner.
2. That from the inspection described in paragraph one the inspector determined that the Company applied roundup herbicide and a preemergent herbicide to RSU 52 school property. The school received invoice number 38581, dated August 16, 2013, indicating the service was sold to RSU 52 Leavitt /Turner Maintenance Department at the 486 Turner Center Road in Turner address and the herbicides were applied to their "infields and FB bleachers, HS football, HS baseball, HS softball, MS softball, Tripp softball, HS shot put. The invoice listed a ship date of 8-13-13 and a due date of 9-15-13. There was a school received date stamped on the invoice of August 23, 2013, and a school paid date stamp of August 29, 2013.
3. That from the inspection described in paragraphs one and two, it was further determined that Company invoice # 39945 dated 5-28-14, was received by the school on June 4, 2014, and paid on June 20, 2014, as indicated by school date stamps. The invoice listed field work of applying weed control to "HS FB, HS FH/SB, PR FOOTBALL with a shipping date of 5-18-14 and a due date of 6-27-14.
4. That on September 23, 2014, a Board inspector conducted a routine school inspection at RSU 73, located at 9 Cedar Street in Livermore Falls.
5. That from the inspection described in paragraph four, the inspector documented an invoice the Company sent the school for pesticide applications made to school grounds. Invoice number 38393 dated July 23, 2013, listed field work done of "APPLY ROUNDUP + PREEMERGENT TO INFIELDS LIVERMORE, APPLY ROUNDUP + PREEMERGENT TO INFIELDS IN JAY". The shipping date was 7-19-13 and the due date was 8-22-13. A date stamp of July 26, 2013, was on the invoice.
6. That on September 26, 2014, a second Board inspector completed a routine school integrated pest management inspection at SAD 24 in Belfast.
7. That from the inspection described in paragraph six, the inspector collected a copy of invoice number 40804 dated 8-13-14. The shipping date was 8-12-14 and the due date was 9-12-14. The received date stamp of the school was August 18, 2014.

8. That the invoice described in paragraph seven listed nine different herbicide treatments to RSU 20 school fields. Seven of those entries were general such as "Spray broadleaf weed control to HS FB/TRACK"
9. That CMR 01-026 Chapter 27 Section 6(B) requires that commercial pesticide applicators shall, within one business day of each pesticide application, provide the IPM Coordinator with a written record of the application including the date, time, location, trade name of the product applied, EPA Registration number and the name of the licensed applicator. If the product has no EPA Registration number then the applicator will provide a copy of the label.
10. That the circumstances in paragraphs one through nine include multiple violations of CMR 01-026 Chapter 27 Section 6(B).
11. That the Board has regulatory authority over the activities described herein.
12. That the Company expressly waives:
  - A. Notice of or opportunity for hearing;
  - B. Any and all further procedural steps before the Board; and
  - C. The making of any further findings of fact before the Board.
13. That this Agreement shall not become effective unless and until the Board accepts it.
14. That in consideration for the release by the Board of the causes of action which the Board has against the Company resulting from the violations in paragraph ten, the Company agrees to pay a penalty to the State of Maine in the sum of \$350 (Please make checks payable to Treasurer, State of Maine).

IN WITNESS WHEREOF, the parties have executed this Agreement of two pages.

SPORTS FIELDS INC.

By: \_\_\_\_\_ Date: \_\_\_\_\_

Type or Print Name: \_\_\_\_\_

BOARD OF PESTICIDES CONTROL

By: \_\_\_\_\_ Date: \_\_\_\_\_

Henry Jennings, Director

APPROVED:

By: \_\_\_\_\_ Date: \_\_\_\_\_

Mark Randlett, Assistant Attorney General

## **Proposed Administrative Consent Agreement Background Summary**

**Subject:** Jon Parker  
Black Bear Lawn Care  
1320 Stillwater Avenue  
Orono, Maine 04401

**Date of Incident(s):** Numerous dates during the 2013 growing season

**Background Narrative:** The Board received a call that a Black Bear Lawn Care employee was seen making what appeared to be an unlicensed outdoor pesticide application at a Walgreens Store on Oak Street in Bangor.

That in response to the call in paragraph one, a Board inspector conducted a follow-up inspection with Jon Parker, the company owner on July 23, 2013. Parker acknowledged that company employees applied vinegar and Roundup herbicide to make spot treatments to mulch beds at Maine Walgreens stores but on a very limited basis. Parker asked that the inspector return at a later date to speak to his employee that made the application to get first-hand information on what was applied to the Oak Street Walgreens.

The inspector later met with company employee involved. The employee acknowledged applying a spot treatment of Roundup Weed and Grass Killer herbicide to the ornamental mulch beds of the Walgreens Store at 97 Oak Street in Bangor on July 18, 2013. The employee also acknowledged applying this pesticide at various locations in excess of fifty times during the 2013 growing season.

That any person making a pesticide application that is a custom application, as defined under 22 M.R.S. § 1471-C(5-A), must be a certified commercial applicator or under the direct supervision of a certified applicator in accordance with 22 M.R.S. § 1471-D(1)(A) and CMR 01-026 Chapter 31 Section 1(A)III.

No one at Black Bear Lawn Care was certified or licensed as a commercial pesticide applicator at the time the company made the pesticide applications.

### **Summary of Violation(s):**

- Any person making a pesticide application that is a custom application, as defined under 22 M.R.S. § 1471-C(5-A), must be a certified commercial applicator or under the direct supervision of a certified applicator in accordance with 22 M.R.S. § 1471-D(1)(A) and CMR 01-026 Chapter 31 Section 1(A) III.

**Rationale for Settlement:** The staff compared the violations to similar cases settled by the Board.

**Attachments:** Proposed Consent Agreement

STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION, AND FORESTRY  
BOARD OF PESTICIDES CONTROL

ck# 5130  
12-2-15  
\$ 200.00

Jon Parker )  
Black Bear Lawn Care ) ADMINISTRATIVE CONSENT AGREEMENT  
1320 Stillwater Avenue ) AND  
Bangor, Maine 04401 ) FINDINGS OF FACT

This Agreement, by and between Black Bear Lawn Care (hereinafter called the Company) and the State of Maine Board of Pesticides Control (hereinafter called the "Board"), is entered into pursuant to 22 M.R.S. §1471-M (2)(D) and in accordance with the Enforcement Protocol amended by the Board on June 3, 1998.

The parties to this Agreement agree as follows:

1. That on July 18, 2013, the Board received a call that a Company employee was seen making what appeared to be an unlicensed outdoor pesticide application to a Walgreens Store on Oak Street in Bangor.
2. That in response to the call in paragraph one, a Board inspector conducted a follow-up inspection with Jon Parker, the Company owner on July 23, 2013. Parker acknowledged that Company employees applied vinegar and Roundup herbicide to make spot treatments to mulch beds at Maine Walgreens stores. Parker asked that the inspector return at a later date to speak to his employee that made the application to get first-hand information on what was applied to the Oak Street Walgreens.
3. That on July 25, 2013, the inspector met with Company employee Ethan Chase. Chase acknowledged applying a spot treatment of Roundup Weed and Grass Killer herbicide (EPA reg. no.71995-25) to the ornamental mulch beds of the Walgreens Store at 97 Oak Street in Bangor on July 18, 2013. Chase also acknowledged applying this pesticide at various locations in excess of fifty times during the 2013 growing season.
4. That any person making a pesticide application that is a custom application, as defined under 22 M.R.S. § 1471-C(5-A), must be a certified commercial applicator or under the direct supervision of a certified applicator in accordance with 22 M.R.S. § 1471-D(1)(A) and CMR 01-026 Chapter 31 Section 1(A)III.
5. That a custom application is defined in 22 M.R.S. § 1471-C(5-A) as any application of any pesticide under contract or for which compensation is received or any application of a pesticide to a property open to use by the public.
6. That the pesticide application made to Walgreens Store on Oak Street in Bangor and additional applications as outlined in paragraph three, constitute custom applications under 22 M.R.S. § 1471-C(5-A) and, therefore, a commercial applicator's license was required for those applications.
7. That no one from the Company had a commercial pesticide applicator's license at the time of the pesticide applications described in paragraph three.
8. That the circumstances described in paragraphs one through seven constitute multiple violations of 22 M.R.S. § 1471-D(1)(A) and CMR 01-026 Chapter 31 Section 1(A)III.
9. That CMR 01-026 Chapter 28 Section 3 requires that when applications are made to outdoor ornamentals, the treated area must be posted prior to making the pesticide application.

10. That the pesticide application on the outdoor ornamental plant beds at the Walgreens Store at 97 Oak Street in Bangor on July 18, 2013, described in paragraph three was not posted.
11. That the circumstances described in paragraphs three, nine, and ten constitute a violation of CMR 01-026 Chapter 28 Section 3.
12. That the Board has regulatory authority over the activities described herein.
13. That the Company expressly waives:
  - a. Notice of or opportunity for hearing;
  - b. Any and all further procedural steps before the Board; and
  - c. The making of any further findings of fact before the Board.
14. That this Agreement shall not become effective unless and until the Board accepts it.

15. That, in consideration for the release by the Board of the causes of action which the Board has against the Company resulting from the violations referred to in paragraphs eight and eleven, the Company agrees to pay to the State of Maine the sum of \$500. (Please make checks payable to Treasurer, State of Maine.) Two hundred dollars will be paid at the time the consent agreement is signed on or before August 21, 2015. Monthly payments of \$100 will be paid on or before the 21<sup>st</sup> of ~~September, October, and November~~ <sup>Dec</sup> of ~~2015-2016~~ <sup>Jan, Feb, or March</sup> 2016.

IN WITNESS WHEREOF, the parties have executed this Agreement of two pages.

BLACK BEAR LAWN CARE

By: *[Signature]* Date: 12/3/14

Type or Print Name: Jordan Pate

BOARD OF PESTICIDES CONTROL

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Henry Jennings, Director

APPROVED

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Mark Randlett, Assistant Attorney General



STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY  
BOARD OF PESTICIDES CONTROL  
28 STATE HOUSE STATION  
AUGUSTA, MAINE 04333

PAUL R. LEPAGE  
GOVERNOR

WALTER E. WHITCOMB  
COMMISSIONER

March 30, 2016

Senator James Hamper, Chair  
Representative Margaret Rotundo, Chair  
Members of the Joint Standing Committee on Appropriations and Financial Affairs  
c/o Office of Fiscal and Program Review  
5 State House Station  
Augusta, ME 04333

Walter Whitcomb, Commissioner  
Maine Department of Agriculture, Conservation and Forestry  
22 State House Station  
Augusta, ME 04333

**RE: Maine Board of Pesticides Control's Concerns Relating to LD 1099**

Senator Hamper, Representative Rotundo, Members of the Committee, and Commissioner Whitcomb:

At its November 13, 2015 meeting, as it does regularly, the Maine Board of Pesticides Control (Board) discussed priorities and identified several important emerging issues. Subsequently, the Board reviewed its annual operating budget in an effort to determine whether funding resources are available to direct toward these priorities. Currently, the difference between projected annual revenues and expenditures shows a small, short-term buffer of approximately 6% until pay raises and inflation catch up. The Board instructed the staff to direct available resources toward current issues and concerns. The Board's position is that it is best to maintain control over pesticide related revenue so that it can remain nimble to address evolving issues.

At its March 25, 2016 meeting, the Board reviewed the latest iteration of LD 1099 which charges the Department of Agriculture, Conservation and Forestry (DACF) with responsibility for identifying \$400,000 annually from Other Special Revenue Accounts in order to fund an expansion of programs at the University of Maine Cooperative Extension. First year funding is to be derived from the Pesticide Control Fund, but subsequent funding has not been identified in the bill.

The Board staunchly opposed the precedent, spirit and likely impacts of LD 1099 for the following reasons:

- Enactment of LD 1099 will soon necessitate elimination of DACF positions that are currently attached to the Pesticide Control Fund. The Board is concerned about a precedent in which important state programs are eliminated and, instead, dedicated state funds are diverted in favor of expansion of University programs.
- The Board recognizes that there may be the appearance of a robust Pesticide Control Fund to those unfamiliar with its operation. At the end of any state fiscal year, calendar year accounts generally have received all of the revenue but made only half of the expenditures. This is often confusing for people accustomed to assessing accounts on the normal fiscal year basis.

HENRY JENNINGS, DIRECTOR  
90 BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-2731  
WWW.THINKFIRSTSPRAYLAST.ORG

- In addition, the fund has been managed carefully and frugally in order to build reserves to provide resources for a much overdue and needed comprehensive technology upgrade to manage Board operations. This project is strongly supported by the regulated community, is still underway and only partially paid for to date. If funding became unavailable to finish this project, a great deal of time, effort, and money would be wasted and the staff and the regulated community would be forced to continue to struggle with an outdated, inefficient system.
- The Board already provides \$200,000 annually in grants to the University of Maine Cooperative Extension for Integrated Pest Management (IPM) related programs.
- Homeowner education about the proper use of pesticides and sustainable approaches to pest management has long been a priority of the Board and its staff. This effort precedes the enactment of Public Law 1997 Chapter 389 which mandates the Board to work to minimize reliance on pesticides and “to educate pesticide users and the general public in the proper use of pesticides.” The Board believes that the recent proliferation of municipal pesticide ordinances relates—in part—to a perception that homeowner use of pesticides is adversely affecting coastal water quality and the urban quality of life. This led the Board to seek ways to enhance the homeowner education effort. Consequently, it instructed the staff to direct available resources toward increasing homeowner outreach.
- While the Board and the DACT acknowledge that the current balance in the Pesticide Control Fund allows for some flexibility in the short term, an assessment of the projected annual revenue and expenditures leaves little margin to account for inflation and for pursuit of current Board priorities.
- The Board is not aware of a single other state in which pesticide registration revenue is diverted to fund expansion of University programs.
- The Board and its staff have had ongoing discussions with the Maine Center for Disease Control and Prevention (Maine CDC) about concerns over mosquito-borne diseases in the state. There are indications that more diseases with increasing severity are headed our way. The best defense against mosquito-borne diseases is accurate and timely information about the presence and location of disease-carrying mosquitoes. The State of Maine—with the exception of minimal funding provided by the Board—has not allocated any resources to mosquito monitoring. This is in sharp contrast to states to the south and west of Maine that invest heavily in mosquito monitoring as a means of preventing disease. The Board sees enormous public benefit from funding improved mosquito monitoring which holds the potential as a stand-alone strategy for saving lives in the future. Moreover, the Maine Legislature created a fund to respond in the event of mosquito-borne disease outbreak, but never funded it. The Pesticide Control Fund is the most logical funding source for both of these efforts, but only if resources are available.
- A series of questions arose for the Board about both the urgency and propriety of the funding requested through LD 1099.
  - Among other things, LD 1099 purportedly will be used to fund operation of a laboratory that has yet to be built and will not be completed during the current fiscal year. Why are funds needed in this fiscal year if there is no laboratory to fund?
  - The new laboratory that will be built using bond funds will consolidate existing University laboratories into a single location. Consolidations generally improve efficiency and result in cost savings. Why does the University need increased funding for a consolidated laboratory?
  - LD 1099 states that funding will be used to test ticks for pathogenic organisms. The Maine CDC and the Board’s own medical expert agree that testing ticks for pathogens serves no medical purpose and is no longer recommended.
  - The University has never clearly indicated exactly why the new funding is needed. Expansion of state programs always requires a clear accounting of how the money will be spent and what the associated public benefit will be.

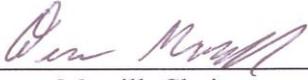
The Board thanks the Joint Standing Committee on Appropriations and Finance for considering its concerns. Please feel free to contact us if you have questions or seek additional information.

**HENRY JENNINGS, DIRECTOR**  
90 BLOSSOM LANE, DEERING BUILDING

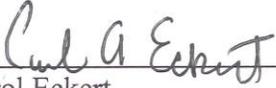


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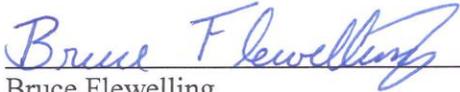
Signed, Maine Board of Pesticides Control



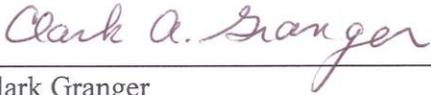
Deven Morrill, Chair



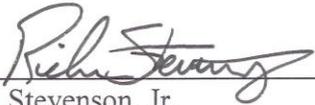
Carol Eckert



Bruce Flewelling



Clark Granger



Richard Stevenson, Jr.

City Council Workshop

Agenda Item #2

February 29, 2016

Pesticides Ordinance

At the June 8, 2015 workshop, the Council heard a presentation put together by Protect South Portland around the use of pesticides. Protect South Portland was joined by Jay Feldman, from Beyond Pesticides in Washington DC; Chip Osborne, of Osborne Organics LLC in Marblehead, MA; and Mary Cerullo, Associate Director, of the Friends of Casco Bay. Each talked about the harmful effects of pesticide use and the negative impacts to the environment. Alternative methods were presented as a means of providing another way for lawn care/vegetation maintenance.

The City Council voiced support for pursuing a pesticide ordinance and various types of ordinances were presented and discussed at the July 13, 2015 workshop. A pesticide ordinance committee consisting of Sustainability Coordinator Julie Rosenbach, Parks, Recreation & Waterfront Acting Director Sarah Neuts and Stormwater Program Coordinator Fred Dillon was created and proposed ordinance language was developed (attached), which will be discussed at next Monday's workshop.

Included is a memorandum from Julie Rosenbach which includes an outline of the process taken to develop the ordinance. The committee members will be at Monday's meeting to answer any questions.

  
City Manager



*SUSTAINABILITY  
OFFICE*

JULIE A. ROSENBACH  
Sustainability Coordinator

To: James H. Gailey, City Manager  
From: Julie Rosenbach, South Portland Sustainability Coordinator  
CC: Fred Dillon, South Portland Stormwater Program Coordinator  
Sarah Neuts, Acting Director, Parks, Recreation & Waterfront  
Date: February 22, 2016  
**Subject: Draft Ordinance to Ban the use of Pesticides**

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Following a City Council Workshop this past summer on organic landscaping and lawn care practices (June 8, 2015) and subsequent workshop to review different types of pesticide ordinances (July 13, 2015), the City Council directed staff to develop an ordinance that greatly reduces and potentially eliminates the use of synthetic pesticides throughout most of the City.

Over the next six months, the designated staff draft pesticide ordinance committee (consisting of myself, Sarah Neuts, Parks Department Superintendent and Fred Dillon, Stormwater Program Coordinator) reviewed numerous documents and conducted several interviews with groups and individuals including policy makers, practitioners, local advocates and industry representatives to develop a draft ordinance. **The attached memo summarizes our process and key considerations for the Council.**

The draft ordinance, completed in January 2016, represents an earnest attempt by staff to balance public health and environmental protection with aesthetic expectations for public and private landscape management.

To summarize, we focused on drafting an ordinance that is bold but realistic.

We relied on the precautionary principle to guide our efforts, acknowledging that while the science regarding risks associated with synthetic pesticides is not settled, there are enough studies linking these products to reproductive disorders, birth defects, learning disabilities, neurological disease, endocrine disorders, and cancer to warrant a ban with minimal exemptions.

At the same time, we recognize there may be situations we have not and cannot anticipate so we included a waiver process in the ordinance and designed it to be a living document that is revisited in year 3 and adjusted as needed.



*SUSTAINABILITY  
OFFICE*

JULIE A. ROSENBACH  
Sustainability Coordinator

We included a long implementation period to allow sufficient time for a successful transition in our thinking and practices. It is also important to note that during the transition phase lawn and turf conditions may appear to get worse before they get better because it takes time to (re)build a healthy and resilient ecosystem which is not dependent on synthetic chemicals.

Recognizing that any meaningful reduction of synthetic pesticides will depend on the cooperation of residents and local businesses, we included a robust education and outreach section. Because the ordinance will involve a culture change as much as a policy change, we believe the strong education and outreach section balances the challenges inherent to enforcement.

The overarching goal of the ordinance is to reduce toxics in our community by reducing the use of synthetic pesticides and promoting a transition to organic land care practices. The Council's review of the ordinance and subsequent public input may provide further refinement, which staff are ready to incorporate.

Lastly, as you may know a bill (LD 1543) was introduced at the state level which would require municipalities to create a "municipal reviewing authority that is similar to the Board of Pesticides Control" in order to pass any type of local ordinance. The Maine Municipal Association (MMA) voted to oppose this bill at their last meeting, and Maine's Environmental Priorities Coalition has made it one of their four priority bills. The bill was assigned to the State and Local Government Committee but then tabled pending review, where it has remained. The bill is expected to remain tabled this session.

Respectfully,

A handwritten signature in black ink, appearing to read "Julie Rosenbach".

Julie Rosenbach  
Sustainability Coordinator

## South Portland Draft Pesticide Ordinance Process & Key Considerations

### BACKGROUND

In early June of 2015, the nonprofit group Protect South Portland sponsored a presentation to the City Council by proponents for organic landscaping and lawn care practices. The goal of this initiative was to encourage the Council to consider establishing an ordinance that greatly restricts or eliminates the use of synthetic pesticides and fertilizers throughout most of the City in recognition of growing concerns about adverse impacts from the use of these materials on public health and the environment.

The Council held a subsequent meeting in July 2015 to allow for public comment. The majority of speakers favored the creation of an ordinance that would ban the use of synthetic pesticides in most cases. Individuals who expressed reservations with a pesticide ban generally represented commercial landscaping and lawn care interests and favored an Integrated Pest Management (IPM)<sup>1</sup> approach rather than an outright ban of synthetic pesticides. All of the Councilors supported the creation of an ordinance to regulate synthetic pesticide use with some strongly preferring an outright ban and others favoring a more moderate approach. Following extensive coverage in local newspapers, the City Manager subsequently received more balanced comments for and against a ban on synthetic pesticides.

Shortly after the July 2015 Council meeting, an intern for the City Manager developed an initial draft pesticide ordinance based on several similar documents developed by communities throughout the State and elsewhere in the country. The City Manager then appointed a committee consisting of the Sustainability Coordinator, the Parks & Recreation Department Superintendent and the Stormwater Program Coordinator to further develop and refine the draft ordinance based on more in-depth research.

Staff reviewed numerous documents and conducted several interviews with groups and individuals including policy makers, practitioners, local advocates and industry representatives to finalize the draft ordinance. The discussion below summarizes the rationale and most significant findings for the final draft document that the Council will consider in early 2016.

### INTRODUCTION

Given the Council's consensus that synthetic pesticide use in South Portland should either be restricted or eliminated, staff relied on the ***precautionary principle*** to guide their efforts

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<sup>1</sup> [Integrated Pest Management](#) consists of practices that emphasize quality production and health while minimizing reliance on pesticides.

in developing the draft ordinance. The precautionary principle acknowledges that while there may be conflicting scientific claims about the relative risks associated the use of potentially harmful products, erring on the side of caution by reducing the use of these products is justified to protect public health and the environment – particularly when the costs to do so are not excessive. Staff considered the four central tenets of the precautionary principle<sup>2</sup> when drafting the ordinance:

- Taking preventative action in the face of uncertainty
- Shifting the burden of proof to the proponents of an activity
- Exploring a wide range of alternatives to possibly harmful actions
- Increasing public participation in decision making

Even though monitoring for synthetic pesticides in South Portland has been limited, there is evidence that these chemicals are a potential cause for concern. There is also an increasing body of research both nationally and globally that synthetic pesticides are having detrimental effects on human health and the environment.

The draft ordinance addresses these concerns by greatly restricting synthetic pesticide use and promoting organic landscaping and lawn care practices to prevent pest problems. The ordinance also stresses the importance of education and outreach in recognition that any meaningful reduction of potentially harmful chemical use depends on the cooperation of residents and local businesses.

Thus, the overarching goal of the ordinance is to reduce toxics in our community by reducing the use of synthetic pesticides and promoting a transition to organic land care practices. In so doing, the ordinance will protect people, pets and the environment.

## **PROCESS FOR DEVELOPING DRAFT ORDINANCE**

In the process of developing South Portland's draft ordinance, staff reviewed a wide variety of information sources including (but not limited to):

- ***Academic research studies and summaries:*** policy implementation evaluation of Toronto's municipal bylaw; study on state regulations, organic lawn management, and nutrient accumulation in soils; journal article on the precautionary principle and its applications; and Rutgers University paper on the management of turf grass using 'low-impact' pesticides.
- ***Local, state and federal regulations and guidance documents:*** Maine Board of Pesticide Control; Environmental Protection Agency; Canada Ministry of Environment; European Union; Washington State Dept. of Agriculture; and several municipal ordinances.

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<sup>2</sup> [The Precautionary Principle in Environmental Science](#) (Sept. 2001 Environmental Health Perspectives)

- ***Non-governmental organization interviews and reference documents:*** Beyond Pesticides; Friends of Casco Bay; Casco Bay Estuary Partnership; Maine Organic Farmers and Gardeners Association; and the Northeast Organic Farming Association.
- ***Interviews with local and state governmental officials:*** Takoma Park MD; Ogunquit ME; and the Cumberland County Soil and Water Conservation District.
- ***Interviews with private landscaping contractors:*** Ornamental Horticulture Council; Maine Landscape and Nursery Association; Down East Turf; Lucas Tree; Sable Oaks Golf Course; Scotts Lawn Care; Broadway Gardens; Osborne Organics; and Go Green Landscaping.

This in-depth process included detailed discussions by staff about which provisions to include in the draft ordinance. From mid-July until late December, staff met on a weekly (and occasionally biweekly) basis to carefully consider all elements in the draft ordinance. The most substantive discussion topics and resulting decisions – all of which were reached by consensus – are summarized below.

***Fertilizers:*** after extensive research and careful consideration, staff decided that developing a comprehensive management strategy to protect water resources from nutrient runoff (esp. nitrogen) should be addressed through a separate stand-alone ordinance. Virtually all municipalities with fertilizer ordinances have also adopted this approach. Given [the increasing concerns about adverse impacts from excessive nitrogen inputs to Casco Bay](#), staff believe that developing a draft fertilizer ordinance would be a significant next step.

***Provisions:*** Following the National Organic Program, the provisions of the ordinance are centered around natural and organic practices. In general, synthetic pesticides are prohibited unless specifically permitted and organic products are permitted unless specifically prohibited. It is also important to emphasize that "organic" is not synonymous with safe. There are risks associated the misuse and overuse of organic pesticides that can also result in adverse impacts to human health and the environment, although the risks are generally considered to be lower than those associated with synthetics.

***Exemptions and Waivers:*** While the goal of the ordinance is to make organic pest management the primary management tool in our community, staff recognize that exemptions are necessary to ensure a successful transition. South Portland's draft ordinance allows for two exemption areas – which is less than most other municipal ordinances.

- **Public Health and Safety Protection:** there may be potential situations requiring the use of synthetic pesticides because there are currently no comparable organic alternatives available. The protection of public health and safety are paramount and

there are numerous circumstances that potentially qualify for an exemption as described in the ordinance.

- **Golf Courses:** there are currently few (if any) examples of golf courses that are being managed successfully without some synthetic pesticide use. Consequently, golf course playing surfaces have also been exempted until organic turf management practices become better established and proven. The City may want to consider creating a pilot program to test various organic practices at the municipal course prior to requiring these practices on a more widespread basis.

Waiver applications will be required for situations involving the protection of public health and safety. A Pesticide Management Advisory Committee (PMAC) will review these applications to ensure that the waiver requests are justified based on a lack of viable alternatives. The PMAC must find that three conditions exist prior to granting and/or approving a waiver; these conditions align with Shoreland Overlay Districts (article XIII) standards in our zoning ordinance.

Staff decided against exempting athletic playing fields primarily because of the higher likelihood that young athletes could come into direct contact with pesticides. Additionally, there are several examples in other communities where these areas are being managed successfully using organic pest management practices. There may also be grant funds available to assist the City in implementing these practices for our fields.

**Public Notification:** For instances when synthetic pesticides are allowed (through the waiver review process), the ordinance includes a detailed notification section that applies to both licensed applicators and private citizens. Staff believe this is an important provision because the public has a right to know when and where these chemicals are being applied.

**Reporting:** Even though the ordinance should greatly reduce synthetic pesticide use and potential exemptions will (hopefully) be few and infrequent, a reporting requirement is included to provide ongoing tracking data for the use of these chemicals. The City's Parks & Recreation Department already maintains detailed records for when, where, how much and what kind of synthetic pesticides are used on City properties. The ordinance will require landscaping contractors to annually report with the same level of detail for private properties.<sup>3</sup> Staff also discussed requiring individual residents to provide synthetic pesticide usage data but recognized this would likely create an undue administrative burden.

**Phasing:** The phasing section allows for a transition period and begins with public properties to demonstrate the City's commitment to leading by example. There is a one

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<sup>3</sup> Landscaping contractors we met with stated that they already keep this data so it would not be overly burdensome to report it.

year lag period so municipal departments can test new practices and products. Phase 2 applies to all private property and begins after two years. Golf courses were initially considered for a third phase but there are currently not enough proven organic management practices to ensure that course playing surfaces could be maintained adequately. Consequently, emphasis was placed on data collection and management practices to inform future provisions. Since the ordinance is intended to be a living document, Phase 3 instead focuses on evaluating the effectiveness of the pesticide regulations and revising them as needed based on the condition of public land, community feedback, new information and emerging science.

**Outreach and Education:** Education alone has not proven successful in reducing the use of synthetic pesticides. According to the [Maine Board of Pesticide Control](#), the use of pesticides for residential land care has increased nearly sevenfold over the past twenty years. However, other municipalities have demonstrated that ordinances combining education with enforcement can be successful tools for setting new community standards.

Because the ordinance will be a culture change as much as a policy change, staff believe a strong outreach and education section balances the challenges inherent to enforcement. The behavior change approach outlined in the ordinance targets different segments of the population through diverse means and includes education for and through retailers. This provision in particular targets private citizens who are the least likely to have any knowledge or training about the hazards associated with synthetic pesticide use.

Staff also considered including provisions to require training and certification on organic land care for landscaping contractors but decided against it given that state law already requires all applicators of synthetic pesticides to be certified. However, the City may want to consider lobbying the Maine Board of Pesticides Control to establish an Organic Pest Management (OPM) certification program.

**Authority:** The Pesticide Management Advisory Committee (PMAC) has a lofty charge. The committee's success will depend largely on the effectiveness of their outreach and education strategy, which will require funding to develop and implement.

## CONCLUSION

Following the public meetings earlier this year, the City Council directed the Manager to establish an ordinance that greatly reduces and potentially eliminates the use of synthetic pesticides throughout most of the City. The draft ordinance completed in January 2016 represents an earnest attempt by staff to balance public health and environmental protection with aesthetic expectations for public and private landscape management. The Council's review of this document and subsequent public input will allow further refinement to create an ordinance that best reflects the overall intent and interests of the community.

## **Purpose**

The purpose of this article is to safeguard the health and welfare of the residents of the City of South Portland and to conserve and protect the City's water and natural resources. South Portland strives to make organic pest management the primary management tool in our community so that synthetic pesticide use and its damaging effects on the health and welfare of residents and the environment are significantly curtailed.

## **Findings**

WHEREAS, The State of Maine is one of only 7 states, and the District of Columbia, that uphold the rights of localities to restrict pesticides, and this should be seen as an opportunity to affect positive change;

WHEREAS, the EPA, the Committee on Environmental Health of the American Academy of Pediatrics, the National Academy of Sciences, and the 2010 President's Cancer Panel have all concluded that pesticide exposure is linked to reproductive disorders, birth defects, learning disabilities, neurological disease, endocrine disorders, and cancer;

WHEREAS, the EPA acknowledges, along with esteemed Mt. Sinai Children's Environmental Health Center, that children, with their developing bodies and brains, are especially vulnerable to the harmful effects of lawn and garden pesticides. Children's behavior (hand to mouth interactions, proximity to the ground, walking or running through lawns instead of paved sidewalks, especially where there are none), dispose children to far more contact with lawn pesticides than adults;

WHEREAS, pesticides are harmful to pets, wildlife including threatened and endangered species, soil microbiology, plants, and natural ecosystems;

WHEREAS, the City of South Portland has five streams designated by the Maine Department of Environmental Protection (MEDEP) as "urban impaired" for failing to meet state water quality standards primarily due to adverse impacts from surrounding development. All of these streams drain to Casco Bay, which is widely recognized as a natural asset of significant ecological and economic value. The Bay faces long-term threats from stormwater runoff and the use of pesticides has the potential to exacerbate these threats;

WHEREAS, the use of hazardous pesticides is not necessary to create and maintain green lawns and landscapes given the availability of viable non-toxic alternative practices and products;

WHEREAS, people have a right not to be involuntarily exposed to pesticides in the air, water or soil that inevitably result from chemical drift and contaminated runoff;

WHEREAS, recognizing that if an emergency public health situation warrants the use of pesticides, which would otherwise not be permitted under this ordinance, the Pest Management Advisory Committee shall have the authority to grant a temporary waiver on a case-by-case basis after an evaluation of all alternative methods and materials.

WHEREAS, numerous communities and municipalities are embracing a precautionary approach to the use of toxic pesticides in order to adequately protect people and the environment from pesticides' harmful effects.

### **Definitions**

The following words, terms and phrases, when used in this ordinance, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

**Commercial Agriculture:** involves the production of crops for sale, crops intended for widespread distribution to wholesalers or retail outlets and any non-food crops.

**Golf course:** an area of land laid out for golf with a series of 9, 18 or more holes. Mini-golf courses are not considered golf courses.

**Inert ingredient:** Any substance (or group of structurally similar substances if designated by the Environmental Protection Agency), other than an active ingredient, which is intentionally included in a pesticide product, except as provided by EPA 40 CFR §174.3.

**Invasive Species:** An invasive plant is defined as a plant that is not native to a particular ecosystem, whose introduction does or is likely to cause economic or environmental harm or harm to human health. For purposes of this ordinance, invasive species include those listed by the Maine Bureau of Agriculture, Conservation and Forestry as currently invasive, potentially or probably invasive, and highly likely but not currently invasive.

**Natural, organic or "Non-synthetic":** A substance that is derived from mineral, plant, or animal matter and does not undergo a synthetic process as defined in section 6502(21) of the Organic Foods Production Act (7 U.S.C. 6502(21)).

**Organic pest management:** An extension of the principles and practices of organic agriculture to the care of turf and landscape.

**Pests:** are considered undesirable terrestrial or aquatic plants, insects, fungi, bacteria, viruses, nematodes, rodents, birds, animals, or other micro-organisms (except viruses, bacteria or other micro-organisms on or in living

persons or other living animals) declared to be a pest under federal or state laws.

**Pesticide:** Any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest; any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant. It does not include multicellular biological controls such as mites, nematodes, parasitic wasps, snails or other biological agents not regulated as pesticides by the U.S. Environmental Protection Agency. Herbicides, fungicides, insecticides and rodenticides are considered pesticides.

**Pest Management Advisory Committee (PMAC):** shall act in an advisory capacity to develop and oversee the ordinance, and advise the City Manager or his/her designee of any problems encountered or amendments required to achieve the full and successful implementation of this article including granting waivers.

**Synthetic:** a substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring sources, except that such term shall not apply to substances created by naturally occurring biological processes.

## Provisions

The following provisions shall be applicable to all turf, landscape and outdoor pest management activities conducted within the City of South Portland, on both public and private land.

(a) *Permitted:*

Use or application of natural, organic land care protocols.

All pest control products that can be used on Maine Organic Farmers and Gardeners Association Certified Farms, and/or products certified by the Organic Materials Review Institute and/or the Washington State Dept. of Agriculture and/or permitted by the USDA National Organic Program.

(b) *Prohibited:*

Use or application of synthetic pesticides on City-owned and private property, other than pesticides classified by the US Environmental Protection Agency as exempt materials under 40 CFR 152.25, and those products permitted by the Organic Materials Review Institute and/or the Washington State Dept. of Agriculture.

## Exemptions

The following applications are exempt from the provisions of this ordinance:

- a. Commercial agriculture;
- b. Pet supplies such as shampoos and tick and flea treatments;
- c. Disinfectants, germicides, bactericides, and virucides;
- d. Insect repellents;
- e. Rat and rodent control supplies;
- f. Swimming pool supplies;
- g. Aerosol products;
- h. General use paints, stains and wood preservatives and sealants.

Prohibited pesticides may also be applied for the following purposes:

1. **Health and Safety** – Pesticides can be used to control plants that are poisonous to the touch, such as poison ivy; insects that bite, sting, are venomous or are disease carrying, like mosquitoes; and animals or insects that may cause damage to a structure, such as carpenter ants or termites.
2. **Golf course playing surfaces** – including tees, fairways, greens and roughs are conditionally exempt from this ordinance if the owner or operator of the golf course submits and makes public an annual management plan. The plan shall include: a map or plan of the golf course showing all application areas, all measures taken to minimize use of synthetic pesticides on playing surfaces and their exposure to humans and waterways to date, and how the use of pesticide ingredients will be minimized in the next calendar year. These plans must be made public by posting on the golf course's website and a copy provided to the Pest Management Advisory Committee. Non-playing areas associated with golf courses such as lawns, driveways, paths, patios, trees, shrubs, ornamental plantings and gardens are not exempt from this ordinance.

## Waivers

In cases that threaten the public health and safety by creating a hazardous situation, and for the control of invasive species that pose a threat to the environment, individuals and/or companies may apply for a waiver from the provisions of this ordinance.

A waiver application is a public record, stating the proposed location(s) and timing(s) of use, substance(s) and amounts to be applied, the date(s) of application, and the reason for requesting use of a synthetic pesticide. The Pest Management Advisory Committee shall decide whether to issue a waiver, and for what duration.

The Pest Management Advisory Committee must find all three (3) of the following conditions to exist in order to approve a waiver for the application of a prohibited pesticide:

- (1) That natural and organic methods have proven unsuccessful;
- (2) The application of pesticides will not occur within two hundred and fifty (250) feet of a tributary, creek, stream, river, lake, or drainage ditch;
- (3) That the granting of the waiver will not result in material damage to other properties in the vicinity, nor be detrimental to the public health, safety or welfare;

### **Public Notifications and Signs**

If prohibited pesticides are applied through an exemption or waiver, the following posting requirements are to be followed. These requirements are in addition to licensed applicators complying with the Maine Board of Pesticide Control rules regarding public notification:

1. Whenever pesticides are to be applied to any land subject to this ordinance, the responsible individuals and/or companies shall post warning signs that meet the requirements of this ordinance. These signs must be posted before application activities commence and left in place for at least 48 hours after actual application or until expiration of the restricted entry interval or reentry time indicated by the pesticide label, whichever is longer.
2. All signs shall be at least five inches high and four inches wide in size. Signs shall be attached to the upper portion of a dowel or other supporting device so that the bottom of the sign is not less than 12" and the top of the sign is not more than 48" above the ground. The signs shall be of rigid, weather resistant material substantial enough to be easily read for at least 48 hours when placed outdoors.
3. All notification signs must be light colored (white, beige, yellow or pink) with dark, bold letters (black, blue or green). They shall have lettering that is conspicuous and clearly legible.
4. The sign must bear the following state requirements:
  - a. The word "CAUTION" in 72 point type;
  - b. The words "PESTICIDE APPLICATION" in 30 point type or larger;
  - c. The Maine Board of Pesticides Control designated symbol;
  - d. Any reentry precautions from the pesticide labeling;
  - e. The name and telephone number of the entity making the pesticide application;
  - f. The date and time of the application;

- g. A date and/or time to remove the sign.
5. All notification signs shall state the chemical and trade name of the pesticide, the date to be applied, the length of time to remain off the treated area as indicated by the pesticide label, and a phone number of the responsible party for more information.

## Reporting

In addition to complying with the Maine Board of Pesticide Control rules regarding record keeping and reporting requirements outlined in Chapter 50, all licensed applicators are required to submit to the City of South Portland an annual summary report. The report shall contain the following information for EACH application in the City of South Portland: date of application, street address, site and size of area treated, quantity and type of synthetic pesticide and diluents applied, EPA#, application method, total undiluted pesticide, and an explanation of any differences in pesticide use or quantity used from the previous annual report submitted.

Reports shall be submitted to the City Clerk's office by December 31 of each year.

## Phase In

**Phase One:** Effective (Date - 1yr) Prohibits the use or application of pesticides on City-owned property, other than pesticides classified by the US Environmental Protection Agency as exempt materials under 40 CFR 152.25, and those products permitted by the Organic Materials Review Institute.

**Phase Two:** Effective (Date - 2yrs) Prohibits the use or application of pesticides on private property. It shall be illegal to apply pesticides on private property in the City, whether by the property owner or a tenant, service provider, or other agent. other than pesticides classified by the US Environmental Protection Agency as exempt materials under 40 CFR 152.25, and those products permitted by the Organic Materials Review Institute.

**Phase Three:** Effective (Date - 3yrs) Conduct an evaluation of this ordinance including a review of pilot project results and reporting data, and provide recommendations for any revisions deemed appropriate.

## Outreach and Education

The City Manager or his/her designee shall publish notice of this ordinance and shall provide periodic notice to identified retailers and lawn, garden, and tree-care providers serving South Portland and to churches, schools, and other institutions in the City, upon adoption of this ordinance.

The Pest Management Advisory Committee shall prepare and publish materials designed to educate the community about the role of pesticides in our local environment and the benefits of organic pest management. This outreach should include:

- A. A community-based social marketing (CBSM) campaign targeting City households
- B. Distribution of information and news about City practices through South Portland internet and web-based resources
- C. SPC-TV public service announcements
- D. News releases and news events
- E. Tax and water bill inserts
- F. Posters and brochures made available at City events and applicable locations that serve the public
- G. Workshops, trainings, and demonstration projects
- H. Targeted outreach to schools
- I. Any additional methods deemed appropriate

The Pest Management Advisory Committee shall also develop a program to work directly with retailers who sell synthetic pesticides in the City of South Portland to:

- A. Provide educational training for all retail store employees who recommend and sell pesticides for use in the home and garden highlighting
  - (a) federal, state, and local pesticide regulations
  - (b) principles of organic pest management
  - (c) pesticide toxicity & health and environmental concerns
  - (d) proper pesticide display and storage
  - (e) the role of personal protective equipment, pesticide poisoning symptoms, and emergency procedures in case of spills
- B. Implement a toolkit consisting of educational materials and signage (i.e. posters, signs, stickers) that can be customized, printed, and placed in stores to help consumers understand the pesticide ordinance and alternatives to prohibited products/synthetic pesticides.

There are a variety of options for different levels of professional and municipal employee education and training based on the Northeast Organic Farming Association's (NOFA) *Standards for Organic Land Care*, which extends the principles of organic agriculture to land care practices:

- A. Accreditation through a three- to five-day course
- B. Certificate course online
- C. Trainings & webinars targeting organic management of turf and lawn

### **Authority**

The South Portland City Manager or his/her designee shall oversee the implementation of the synthetic pesticide ordinance. A Pest Management Advisory Committee shall be created to act in an advisory capacity to oversee the ordinance through

- (1) Advising the City Manager or his/her designee of any problems encountered or amendments required to achieve the full and successful implementation of this ordinance.
- (2) Reviewing and granting waivers when applicable.
- (3) Developing and implementing outreach and education as specified in the ordinance.
- (4) Reviewing annual data and issuing a summary report annually.
- (5) Additional responsibilities as deemed necessary by the City.

The Pest Management Advisory Committee will seek the participation, advice and counsel of experts in the fields of organic turf and landscape management, maintenance of trees and shrubs, and organic pest protocol. Broad community participation, from parents, schools, advocates, and local arboriculture and landscaping businesses, will be encouraged. The committee will work closely with the City's Sustainability Office to develop and implement outreach and education.

The Pest Management Advisory Committee shall include:

1. City Stormwater Coordinator
2. City Parks & Recreation Superintendent or his/her designee
3. Two Maine Board of Pesticide Control-licensed landscape professionals; at least one having experience in organic land care management; appointed by the City Manager or his/her designee.
4. Two resident or taxpayer representatives, at-large; appointed by the City Council.

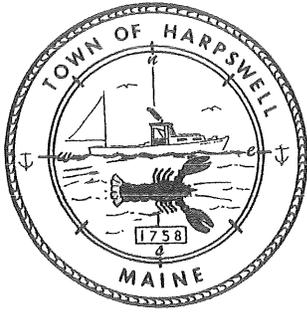
The Pest Management Advisory Committee shall meet regularly and waivers shall be reviewed at scheduled committee meetings. Waiver applications must be submitted at least two (2) weeks before a scheduled meeting date in order to be reviewed. Minutes shall be kept of all meetings with a copy filed with the City Clerk. An annual report of the data submitted by all licensed applicators and a review of the committee's activities shall be submitted to the City Council in March of each year.

### **Fines and Enforcement**

Any law enforcement or Code Enforcement Officer may issue a municipal complaint ticket or citation for offenses of this section.

- A. A first offense of any provision of this ordinance shall warrant a letter of warning.
- B. A second offense shall be punishable by a fine of two hundred dollars (\$200.00).
- C. The third offense shall be punishable by a fine of five hundred dollars (\$500.00).

- D. Any subsequent offense shall be punishable by a fine of one thousand dollars (\$1,000).



**Town of Harpswell**  
Planning Office  
P.O. Box 39  
Harpswell, ME 04079

MAR 22 2016

March 18, 2016

Maine Board of Pesticides Control  
28 State House Station  
Augusta, ME 04333

Mr. Jennings:

RE: Harpswell Outdoor Pesticides Control and Fertilizer Use Ordinance

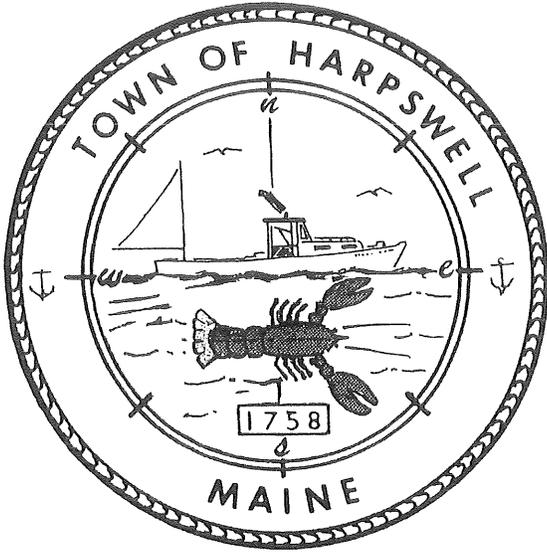
Over the past couple of months, I have provided you with drafts of proposed amendments to the Town of Harpswell's Insect Growth Regulator and Shoreland Zoning Ordinances. This letter is to notify you that the Harpswell Town Meeting adopted amendments to those ordinances at its 2016 Town Meeting. Attached is a certified copy of the Town's revised and renamed Outdoor Pesticides Control and Fertilizer Use Ordinance. This ordinance incorporates the revisions that were previously provided to you. Please let me know if you would like this in an electronic format.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Eyerman', with a long horizontal flourish extending to the right.

Mark Eyerman, Town Planner

Cc: Kristi Eiane, Town Administrator  
Amy Tchao, Drummond Woodsum



*Town of  
Harpswell  
Maine  
2016*

# Outdoor Pesticides Control and Fertilizer Use Ordinance

Harpswell, Maine

Attest: A true and exact copy.

*Rosalind Knight*  
Town Clerk, Deputy

Date

3-18-16

**TOWN OF HARPSWELL**  
**Outdoor Pesticides Control and**  
**Fertilizer Use Ordinance**

Enacted May 20, 2004  
Amended March 12, 2016

- i. the use and/or application by any person by any method whatsoever of any Insect Growth Regulator (IGR) as defined, or;
  - ii. the aerial spraying of any Insecticide whose product label indicates that it is harmful to aquatic invertebrates.
- b) No outdoor use of a pesticide shall be permitted within twenty-five (25) feet of the maximum high water line of a great pond, stream, tributary stream, the highest annual tide (HAT) of a coastal wetland or the upland edge of a freshwater wetland; except in conjunction with commercial agriculture, nurseries, or golf courses.
- c) The outdoor use and/or application of any neonicotinoid insecticide whose product label indicates that it is harmful to bees or aquatic invertebrates is subject to the following restrictions except in conjunction with commercial agriculture, nurseries, or golf course.
  - i. Between twenty-five (25) and two hundred fifty (250) feet of the maximum high water line of a great pond, stream, tributary stream, the highest annual tide (HAT) of a coastal wetland or the upland edge of a freshwater wetland, the use of a neonicotinoid insecticide regulated by this ordinance must be done by a licensed applicator. Uses permitted by licensed applicators are limited to applications by stem injection or painting on wind pollinated trees or plants.
  - ii. Outside of the two hundred fifty (250) foot shoreland zone, neonicotinoid insecticides may be applied by:
    - a) stem injection or tree painting to wind pollinated trees plants, or
    - b) other application methods if applied by a licensed applicator.

#### **Section 4. Use of Licensed Pesticide Applicators**

Any application, for which compensation is paid, of general use pesticides, restricted pesticides, or weed and feed fertilizers, shall be done by a licensed applicator.

#### **Section 5. Fertilizer Use Limitation**

The outdoor use of fertilizers, except in conjunction with commercial agriculture, nurseries, or golf courses, is subject to the following limitations:

- a) Within the shoreland zone:
  - i. No fertilizer shall be applied within twenty-five (25) feet of the maximum high water line of a great pond, stream, tributary stream, the highest annual tide (HAT) of a coastal wetland or the upland edge of a freshwater wetland.
  - ii. Between twenty-five (25) and two hundred fifty (250) feet of the maximum high water line of a great pond, stream, tributary stream, the highest annual tide (HAT) of a coastal wetland or the upland edge of a freshwater wetland, only non-water soluble fertilizer, compost, or composted manure may be applied.

A decision of the Conservation Commission with respect to the granting of a waiver may be appealed to the Board of Selectmen within fifteen (15) days of the Commission's decision. The Board shall act on an appellate basis in reviewing the decision and may affirm or modify the Commission's decision.

**Section 8. Random Sampling**

When a violation of the provisions of this ordinance is suspected, the Code Enforcement Officer may require that the person, firm, or corporation that is the owner of or having control or use of the property, provide the Town with soil or leaf samples from a location on the property specified by the Code Enforcement Officer in sufficient quantity to permit laboratory testing of the soil or leaf in order to check for the presence of any Insect Growth Regulator (IGR) that prevents molting or inhibits exoskeletal formation or any Neonicotinoid or Insecticide whose product label indicates that it is harmful to aquatic invertebrates or bees.

**Section 9. Violations**

A person, firm, or corporation who uses or applies or causes to be used or applied any Insect Growth Regulator or Insecticide in violation of the Ordinance shall be subject to a fine of not less than \$1,000 nor more than \$2,500 for the first violation of this Ordinance. A fine of not less than \$2,501 nor more than \$5,000 shall be levied against any person, firm, or corporation violating this Ordinance for the second and each subsequent violation. Refusal to comply with the Code Enforcement Officer's sampling request shall result in a fine of not less than \$1,000 and may result in further action by the Town and its Code Enforcement Officer in seeking an administrative inspection warrant for the property.

**Section 10. Enforcement**

This Ordinance shall be enforced by the Code Enforcement Officer. The Code Enforcement Officer is hereby authorized to institute or cause to be instituted, in the name of the Town, any and all actions, legal or equitable, that may be appropriate or necessary for the enforcement of this Ordinance.

**Section 11. Severability**

To the extent any provision of this Ordinance is deemed invalid by a court of competent jurisdiction, the balance of the Ordinance shall remain valid.

**Section 12. Table of Prohibitions and Restrictions**

The following table provides an overview of the prohibitions and restrictions on the outdoor use of pesticides and fertilizers except for applications in conjunction with commercial agriculture, nurseries, and golf courses. Where there is conflict between the table and the descriptions in the preceding sections, the language of Sections 3, 4, 5 and 6 shall apply.

<b>HARPSWELL PESTICIDE/FERTILIZER PROHIBITIONS AND DISTANCE FROM WATER</b>			
<b>CLASS OF PESTICIDE/ FERTILIZER</b>	<b>SHORELAND ZONE</b>		<b>OUTSIDE SHORELAND ZONE</b>
	<b>25' BUFFER</b>	<b>25' – 250'</b>	<b>OVER 250'</b>
Insect Growth Regulator (IGR)	X	X	X
Neonicotinoids: Label indicates harmful to pollinators or aquatic invertebrates	X	Use only permitted by Licensed Applicator on wind pollinated trees or plants using stem injection or painting	Use only permitted on wind pollinated trees or plants using stem injection or painting. Other application methods will not be restricted if applied by a Licensed Applicator.
All other pesticides	X	No restriction	No restriction
Fertilizer	X	Compost Non water soluble nitrogen fertilizer	No restriction

**X = Use prohibited**

## Chamberlain, Anne

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**From:** Jennings, Henry  
**Sent:** Wednesday, April 06, 2016 2:31 PM  
**To:** Chamberlain, Anne  
**Subject:** FW: please put on Board's agenda for discussion

---

**From:** new TDS [<mailto:cleaneearth@tds.net>]  
**Sent:** Wednesday, April 06, 2016 2:24 PM  
**To:** Jennings, Henry; Fish, Gary  
**Subject:** please put on Board's agenda for discussion

- True to my word, Gary, I got this (link below) on Facebook but did not post to your page, although I am sharing it per usual and it may show up in your feed, but not unbidden on your page.
- I don't know what's it's going to take for you staffers to advocate for bees and people - - rather than pandering to chemical manufacturers, but I'm an optimist who doesn't believe in giving up when something's so clearly morally right.
- Banning Neonics is clearly the right thing to do.....do you have the guts to propose this to the suborned Board?
- - Nancy Oden, Jonesboro

<http://www.healthy-holistic-living.com/european-scientists-discover-bee-resurgence-after-banning-these-3-pesticides-still-used-in-the-us.html?t=NGMO>

Note: Article is included in the miscellaneous articles

Maine Board of Pesticides Control

**Miscellaneous Pesticides Articles**  
**May 2016**

*(identified by Google alerts or submitted by individuals)*



# Department of Justice

FOR IMMEDIATE RELEASE  
TUESDAY, MARCH 29, 2016  
[WWW.JUSTICE.GOV](http://WWW.JUSTICE.GOV)

ENRD  
(202) 514-2007  
TTY (866) 544-5309

## **TERMINIX COMPANIES AGREE TO PAY \$10 MILLION FOR APPLYING RESTRICTED-USE PESTICIDE TO RESIDENCES IN THE U.S. VIRGIN ISLANDS**

*All TERMINIX Locations Have Ceased Using Pesticides Containing Methyl Bromide in the United States  
Employees Illegally Applied Pesticides Containing Methyl Bromide to Residences in St. John, St. Croix, and St. Thomas, U.S.V.I.*

WASHINGTON – The pest control corporation Terminix International Company LP (TERMINIX LP) and its U.S. Virgin Islands operation Terminix International USVI LLC (TERMINIX, USVI), were charged today with multiple violations of the Federal Insecticide, Fungicide and Rodenticide Act for illegally applying fumigants containing methyl bromide in multiple residential locations in the U.S. Virgin Islands, including the condominium resort complex in St. John where a family of four fell seriously ill last year after the unit below them was fumigated, the Department of Justice and the Environmental Protection Agency (EPA) announced today.

In a plea agreement, TERMINIX LP and TERMINIX, USVI agreed to pay a total of \$10 million in criminal fines, community service, and restitution payments. Except for completing one government contract at the Port of Baltimore, TERMINIX LP has stopped using pesticides containing methyl bromide in the United States and U.S. Territories. Under the agreement TERMINIX, USVI will pay \$5 million in fines and \$1 million in restitution to the EPA for response and clean-up costs at the St. John resort. TERMINIX LP will pay a fine of \$3 million and will fund a \$1 million community service project in the U.S.V.I. The plea agreement is subject to approval by the district court.

“When misused, highly toxic pesticides can have catastrophic consequences, and that’s why those who are certified to apply them must do so responsibly and lawfully,” said Assistant Attorney General John C. Cruden for the Justice Department’s Environment and Natural Resources Division. “The facts in this case show the Terminix companies knowingly failed to properly manage their pest control operations in the U.S. Virgin Islands, allowing pesticides containing methyl bromide to be applied illegally and exposing a family of four to profoundly debilitating injuries. While on probation the companies are required to demonstrate to the EPA changes to their internal management and systems to ensure this type of tragedy does not reoccur.”

“This prosecution demonstrates the importance of complying with environmental laws and regulations,” said Ronald W. Sharpe, United States Attorney for the District of the Virgin Islands. “Tragically, the defendants' failure to do so resulted in catastrophic injuries to the victims and exposed many others to similar harm. The United States Attorney’s Office is committed to the enforcement of environmental laws and will take all necessary steps to hold those who violate these laws criminally accountable and to protect residents and visitors of the Virgin Islands.”

“When you break a law that protects public health, there are real victims and real consequences, as this case tragically shows,” said Cynthia Giles, Assistant Administrator for Enforcement and Compliance Assurance at EPA. “This incident illustrates how important it is for EPA to enforce environmental laws and hold anyone accountable for endangering our safety. Today’s charges should send a clear message to the industry, and directs important funds toward training programs to help ensure this can’t happen again.”

In 1984 EPA banned the indoor use of methyl bromide products. The few remaining uses are severely restricted. Pesticides containing methyl bromide in the U.S. are restricted-use due to their acute toxicity, meaning that they must only be applied by a certified applicator. Health effects of acute exposure to methyl bromide are serious and include central nervous system and respiratory system damage. Pesticides can be very toxic and it is critically important that they be used only as approved by EPA.

After the government began its investigation, TERMINIX LP voluntarily ceased its use of methyl bromide in the U.S. and in U.S. territories, except for one remaining supervised government contract.

According to the information filed in federal court in the U.S. District Court of the Virgin Islands today, the defendants knowingly applied restricted-use fumigants at the Sirenusa resort in St. John for the purpose of exterminating household pests on or about October 20, 2014, and on or about March 18, 2015. The companies were also charged with applying the restricted-use pesticide in 12 residential units in St. Croix and one additional unit in St. Thomas between September 2012 and February 2015.

According to the factual basis of the plea agreement, TERMINIX, USVI provided pest control services in the Virgin Islands including fumigation treatments for Powder Post Beetles, a common problem in the islands. These fumigation treatments were referred to as “tape and seal” jobs, meaning that the affected area was to be sealed off from the rest of the structure with plastic sheeting and tape prior to the introduction of the fumigant. Customers were generally told that after a treatment, persons could not enter the building for a two- to three-day period.

On or about March 18, 2015, two employees of TERMINIX, USVI, performed a fumigation pesticide treatment at the lower rental unit of Building J at Sirenusa in St. John. The upper unit in Building J was occupied by a Delaware family of four. Via various means, methyl bromide from the lower unit migrated to the upper unit of Building J, causing serious injury to and hospitalization of the entire family.

EPA regional staff responded immediately to the incident in St. John, securing the scene, performing testing and addressing the contamination. Within days, the EPA sent out a pesticide use warning to pesticides applicators in Puerto Rico and the U.S. Virgin Islands, followed by a broader pesticide notice to regulators in all states, the British Virgin Islands, and to other Caribbean and Latin American countries.

As a special condition of the companies' three year probation, the defendants shall make good faith efforts to resolve past and future medical expenses for the family through separate civil proceedings. If they do not do so before the end of the probationary period, they would be subject to an order of restitution and the government may petition the District Court to reopen the sentencing proceedings to seek recovery of past and future medical and other expenses.

The \$10 million penalty includes \$8 million in criminal fines, \$1 million in restitution to the EPA for response and clean-up costs, and a \$1 million community service payment to the National Fish and Wildlife Foundation for the purpose of engaging a third party to provide training to pesticide applicators in the U.S. Virgin Islands.

The case was investigated by EPA Criminal Investigation Division working cooperatively with the Virgins Islands government and, the Agency for Toxic Substances and Disease Registry.

Senior Litigation Counsel Howard P. Stewart of the Department of Justice, Environmental Crimes Section, and Assistant U.S. Attorney Kim L. Chisholm of the District of the Virgin Islands are prosecuting the case with assistance of Patricia Hick, EPA Region II Regional Criminal Enforcement Counsel.

The investigation is ongoing.

For more information about EPA's pesticide program and its requirements, visit [www.epa.gov/pesticides/](http://www.epa.gov/pesticides/).

For more information on methyl bromide, visit [www.epa.gov/region2/methyl-bromide.pdf](http://www.epa.gov/region2/methyl-bromide.pdf).

###

16- 370

DO NOT REPLY TO THIS MESSAGE. IF YOU HAVE QUESTIONS, PLEASE USE THE CONTACTS IN THE MESSAGE OR CALL THE OFFICE OF PUBLIC AFFAIRS AT 202-514-2007.

## Chamberlain, Anne

---

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**Sent:** Wednesday, April 06, 2016 2:31 PM  
**To:** Chamberlain, Anne  
**Subject:** FW: please put on Board's agenda for discussion

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**To:** Jennings, Henry; Fish, Gary  
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- I don't know what's it's going to take for you staffers to advocate for bees and people - - rather than pandering to chemical manufacturers, but I'm an optimist who doesn't believe in giving up when something's so clearly morally right.
- Banning Neonics is clearly the right thing to do.....do you have the guts to propose this to the suborned Board?
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Note: Article is included in the miscellaneous articles



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# European Scientists Discover Bee Resurgence After Banning These 3 Pesticides Still Used in The US

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by PAUL FASSA (<http://www.realfarmacy.com/author/paul-fassa/>)

Whether or not Einstein equated bee extinction to human extinction has been challenged and perhaps debunked. He may have never said anything close to that. After all, he was a physicist, not a biologist. But no matter. The diversity of our crops is highly dependent on pollinators, predominantly by honey bees and somewhat further by butterflies.



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In 1976, retired apiculturist (http://www.thefreedictionary.com/apiculturist) S.E. McGregor, from the USDA's Agriculture Research Service (ASR), wrote a paper in 1976 entitled "Economics of Plant Pollination". After mentioning that some plants are wind or self pollinated, McGregor stated, "... it appears that perhaps one-third of our total diet is dependent, directly or indirectly, upon insect-pollinated plants."

In his 1976 paper, McGregor also points out, "Another value of pollination lies in its effect on quality and efficiency of crop production. Inadequate pollination can result not only in reduced yields but also in delayed yield and a high percentage of culls or inferior fruits. In this connection, Gates (1917) warned the grower that, ... 'without his pollinating agents, chief among which are the honey bees, to transfer the pollen from the stamens to the pistil of the blooms, his crop may fail.'"

## Now We Have Colony Collapse Disorder

It's well known to those who care about our future food supply that bee populations are dying off dramatically, and certain pollinating butterfly species, especially Monarchs, are becoming endangered.

Sometimes the bees simply get confused and don't return to their hives, and sometimes they simply die in their hives. It's known as Colony Collapse Disorder (CCD), and it has been rampant in North America. Neonicotinoids are the most widely used pesticides in the world and are extremely toxic to bees and other pollinators.

European scientists have discovered that bee populations are experiencing a resurgence after three neonicotinoid insecticides, clothianidin, imidacloprid and thiamethoxam were banned by the European Commission in 2013. Unfortunately, all three are still used heavily in the USA.

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The European Academies Science Advisory Council, an independent body composed of representatives from the national science academies of European Union member states, has a growing body of evidence that shows the widespread use of the pesticides “has severe effects on a range of organisms that provide ecosystem services like pollination and natural pest control, as well as on biodiversity.”

The European ban is up for review this year, and the council’s report, based on the examination of more than 100 peer-reviewed papers that were published since the food safety agency’s finding, was prepared to provide officials with recommendations on how to proceed. Hopefully science will prevail over political influence from agrochemical industries.

Predatory insects like parasitic wasps and ladybugs provide billions of dollars’ worth of insect control, they noted, and organisms like earthworms contribute billions more through improved soil productivity. All are harmed by the pesticides and herbicides as well. Using pesticides is like trying to put out a fire by shooting at firemen as they arrive at the scene.

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You can include glyphosate herbicides as well. Dr. Donald Huber, 55 year government plant pathologist and Purdue University professor emeritus suggests strongly that glyphosate herbicides contribute to pollinating bees' confusion, causing them to not be able to return to their hives. That's one part of CCD, the other part is when whole hive colonies die in or near their hives.

Despite Huber's strong background and integrity, he has been ignored and vilified for his attempts at warning the corrupt creeps in the USDA and academia. They are all on the GMO industry's payroll, directly or indirectly.

Perhaps Big Ag mono-crop farmers are too ignorant of older methods of agroecology insect control or perhaps their farms are too big or they're too lazy and greedy. Or perhaps they're simply victims of a failed system known as Big Ag with its handful of large worldwide distributors and a commodity speculative trading system that influences food pricing.

The solution to a sustainable food supply has been determined by several international studies from agricultural experts not attached to specific Big Ag or biotech industries; the largest was assigned to international experts by the United Nations. Their proposed solution to world hunger is small organic agroecological farms that **supply food within their regions**.

These studies received little or no mainstream media publicity. And the practices they advocate receive no government subsidies. Instead, the loudest and most quoted voices for solving world hunger are from GMO shills.

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**Paul Fassa (<http://realfarmacy.com/author/paul-fassa/>) is a contributing staff writer for REALfarmacy.com. His pet peeves are the Medical Mafia's control over health and the food industry and government regulatory agencies' corruption. Paul's contributions to the health movement and global paradigm shift are well received by truth seekers. Visit his blog by following this link (<http://healthmaven.blogspot.com/>) and follow him on Twitter here (<https://twitter.com/healthmav>)**

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Posted 4:00 AM

# Plan to ban pesticides in South Portland: A model or a mistake?

Backers say education will be key, critics fear negative impacts and a spreading trend, and it's unclear whether lawns would get more weedy.

BY KELLEY BOUCHARD STAFF WRITER  
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Like little flags on a freshly treated lawn, concerns about a proposed pesticide ban in South Portland are cropping up across southern Maine and beyond, even though supporters and opponents say such a law would be difficult if not impossible to enforce.

The proposed ordinance [would prohibit the use of synthetic lawn-and-garden pesticides and herbicides](#) on private as well as city-owned property. Retailers could still sell the targeted products, including glyphosate-based Round-Up, neonicotinoids and weed-and-feed applications. And residents could still buy them.



Tom Estabrook of Estabrook's garden center in Yarmouth says the proposed pesticide ban could set a bad precedent. *Photos by Jill Brady/Staff Photographer*



Cathy Chapman, a master gardener and coordinator of the group backing the South Portland pesticides ban, says "it's the wave of the future for a healthy and sustainable world." *Jill Brady/Staff Photographer*



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But only pesticides allowed in organic farming or exempted from federal regulation could be used within city limits. The ban would exempt commercial agriculture and playing surfaces at local golf courses, and it would allow waivers for public health, safety and environmental threats, such as mosquitoes, poison ivy and invasive tree insects.

Activists on both sides of the issue say South Portland's effort could be copied by other communities across Maine and the nation. Portland officials have announced plans to follow South Portland's lead if it succeeds. Whether the ban would cause a proliferation of weeds or wildflowers is up for debate.

Supporters say South Portland's ordinance would be the most far-reaching and environmentally progressive law of its kind in the nation, following a similar measure passed last year in Ogunquit and the Healthy Lawns Act that's being rolled out in Montgomery County, Maryland. Late last week, the Maryland Legislature also passed a bill, now awaiting the governor's signature, that would specifically ban the retail sale and homeowners' use of neonicotinoid pesticides, which have been linked to bee population declines. Commercial uses would still be permitted.

But opponents say South Portland's proposal would be largely unenforceable as written and liable to divide neighbors into warring camps of scofflaws and watchdogs. The strongest opposition is coming from the lawn and garden industry, members of which turned out in force last week to speak against the ban. The South Portland City Council [gave it unanimous preliminary approval on a first reading](#). Amendments clarifying enforcement and waiver procedures are expected before the council takes a final vote in the weeks ahead.

Critics include Tom Estabrook, vice president of Estabrook's garden center in Yarmouth. He's president of the Independent Garden Centers of Maine and past president of the Maine Landscape and Nursery Association. His family has a seasonal operation in Kennebunk, near Ogunquit, where he witnessed how some residents responded during the first growing season of that town's new ordinance.

Estabrook warned South Portland councilors that their actions could have implications far beyond their city and their intentions.

"If you put this ordinance in place, you're gonna take pesticides and throw it underneath the rug," Estabrook said at the lectern. "I have customers every day from Ogunquit that come in and buy (synthetic) pesticides, take them home and use them. There's an ordinance in place, but it's gonna happen."

Councilors took the warning in stride, including Eben Rose, who emphasized the importance of education over enforcement and said he thought the "soft approach" would be most successful.

Councilor Patti Smith suggested that the city's sustainability coordinator be allowed some "latitude in enforcing the law, and noted that it sometimes "takes a village" to change long-accepted practices.

"Yes, of course there'll be people who don't obey," Smith said. "That's part of what happens. This isn't an attempt to catch everyone. It's about making a majority of people aware of what's happening."

She continued: "We're looking to model good behavior, get people educated. I'm not as concerned about the enforcement because, honestly, I think we should enforce other things that are more important."

## **EDUCATION OVER ENFORCEMENT**

Public education is a significant part of the proposed ban, and one way that South Portland's ordinance is more advanced than its predecessors. It calls for campaigns to disseminate information about pesticide regulations, organic pest management principles and proper pesticide application and storage. The campaigns would target residential and commercial property owners, employees of pesticide retailers and state-licensed pesticide applicators, who also would have to submit yearly reports on synthetic pesticide use.

The ban would be phased in over three years, applying to city property starting May 1, 2017, and broadening to private property on May 1, 2018. It would apply to the municipal South Portland Golf Course and the privately owned Sable Oaks Golf Club starting May 1, 2019.

Because golf courses require turf conditions that are more difficult and costly to maintain by organic methods, all playing surfaces would be exempt from the ban on the private course, while only tees and greens would be exempt on the municipal course.

Violators of the proposed ordinance would face escalating fines of \$200, \$500 and \$1,000 per offense. The ordinance would be reviewed during the third year for possible revision, although some councilors would like revisions to be made as needed.

The ordinance would be administered and enforced by the city's sustainability coordinator and overseen by a seven-member Pest Management Advisory Committee. The panel would include three residents and two licensed landscape professionals, at least one of whom would have organic land care experience.

The proposed ban says the police department and code enforcement officer “shall provide investigative assistance” to help the sustainability coordinator enforce the ban, but this idea has drawn considerable skepticism.

Estabrook says the state’s heroin crisis should be the focus of police attention and that homeowners shouldn’t be put in an untenable position of monitoring neighbors and tattling if they use banned pesticides.

But even with police assistance, Estabrook and others contend, the proposed ordinance would be largely unenforceable and potentially damaging to an industry that generates \$77 billion in annual revenue and employs nearly 1 million people nationwide, according to IBIS World. Not to mention how it might affect homeowners who spend hundreds on annuals, perennials, shrubs and trees each year.

“I sell thousands and thousands of plants each year,” Estabrook said after the council meeting. “I’d hate to see the tools to care for those taken away.”

Estabrook’s two locations draw customers from Kittery to Augusta, he said, and they ought to be able to buy pesticides that have been deemed legal and safe, if used properly, by the federal Environmental Protection Agency.

Estabrook and others say South Portland’s proposed ordinance should promote integrated pest management, which allows both synthetic and organic measures that balance the economic, health and environmental impacts of pesticides and strive to minimize their use overall. Organic pest-control practices aren’t as effective as synthetic pesticides, they say, and sometimes result in using more pesticides in multiple applications.

“We don’t feel the council has quite all the information they need to make a good decision,” Estabrook said. “I do believe there will be a domino effect if we don’t get some happy medium between all or nothing. There are good points on both sides, but they’re creating an ordinance with one side in mind.”

## **EXPERIENCE IN OGUNQUIT**

Scott Heyland is the code enforcement officer in Ogunquit, a seaside summer resort town with fewer than 1,000 permanent residents. He’s responsible for enforcing the town’s synthetic pesticide ban on town and private property, along with inspecting construction sites, reviewing building plans and issuing building permits.

Heyland said he found no violations during the first year of the pesticide ban. He did get a few calls from residents who thought neighbors were breaking the law, but each time he checked, the lawn care company involved said it had used organic applications and methods.

Heyland heard complaints from some residents and hotel owners who followed the law and “were not happy at all” with infestations of crab grass, grubs and red thread, which left brown patches in otherwise manicured lawns. He also issued a few verbal waivers for infestations such as poison ivy and Japanese knot weed or bamboo.

“The first year was more of a learning curve,” Heyland said. “This upcoming summer, we’ll see what happens. I don’t think it’s ever going to be like handing out tickets in a no-parking zone.”

Still, Heyland said, he wouldn’t doubt that some Ogunquit residents continued to treat their lawns with banned pesticides.

“That’s going to be hard to regulate anywhere,” he said. “That’s more of a self-policing thing. Most of the properties in Ogunquit have lawn care companies doing the work. South Portland may have more of an issue with people who do the work themselves.”

Heyland said he knows several residents who stopped using lawn care services, either because they weren’t getting the pesticide treatments they wanted or because organic treatments are much more expensive.

Paul Sevigny owns Mainely Grass, a York-based lawn fertilization company that treats up to 300 properties in Ogunquit. He absolutely believes some Ogunquit residents continued to use banned products last year, based on the unblemished, deep-green color of some lawns.

“Driving around town, you can tell who’s not organic,” Sevigny said.

Sevigny lost “a couple dozen” customers last summer, but it didn’t dent his bottom line, he said. Some didn’t like the results of all-organic treatments. Others couldn’t afford a 200 percent to 300 percent increase in their lawn care bills.

Despite the higher cost, the organic applications were less effective, at least during the first year, Sevigny said. He had more than 60 cases of turf loss due to grub infestation.

Sevigny said he usually practices integrated pest management, including tick and mosquito control, and he strives to operate an environmentally friendly business whether he’s treating lawns in Maine New Hampshire or Massachusetts.

“I’m not a chemical provider, I’m a service provider,” Sevigny said. “It’s going to take longer than a year to figure out how this is really going to transpire in Ogunquit.”

## **HEALTHY SOIL, HEALTHY EARTH**

Supporters of South Portland’s proposed ban say almost nothing is more important than getting chemicals out of the environment and building healthy soil that doesn’t need pesticides when managed with natural, organic methods. They see the ban’s potential impact from a global perspective, where pesticide-free food, open spaces and estuaries leading to Casco Bay are part of a larger ecosystem.

“It’s the wave of the future for a healthy and sustainable world,” said Cathy Chapman, a coordinator of [Protect South Portland, a citizens group that’s promoting the ban](#). “I think our ordinance is comprehensive and reasonable, and it will be a model for the country.”

Chapman is a master gardener who has used organic methods since 1974 and tends to a wide variety of perennials, shrubs, berry bushes and fruit trees in her yard on Beaufort Street. She has never seen a tomato horn worm in her vegetable beds and she credits age-old practices – composting, crop rotation and proper watering – with keeping pests and disease at bay.

“When you have healthy plants, you don’t really get pests,” Chapman said. “If you create a healthy environment for the plants and you feed the soil, the plants will thrive. Soil is alive with organisms and insects, and when you spray it with pesticides and herbicides, you essentially kill all the good things in the soil.”

The ban’s supporters say local action is necessary because the EPA and state agencies aren’t doing enough. They point to a 2013 report from the federal Government Accountability Office that found the EPA had granted conditional approvals that pushed many pesticides to market without thorough review. It also found the EPA didn’t track toxicity data or product modifications after the fact. A GAO report last month found some improvements have been made, such as revised labeling requirements for impact on bees, but that federal oversight of pesticides is still significantly lacking

Chapman acknowledged that it can take awhile to see positive results when making the shift from synthetic to organic gardening methods. And it takes work to rebuild healthy soil in a depleted lawn or garden. It’s not as simple as swapping one bag of weed killer for another, she said.

Successful organic gardening means choosing disease-resistant and indigenous plants whenever possible, planting them in the right place and caring for them properly, she said. Some people

choose to replace lawn with easier-to-maintain perennial gardens. Often, once an organic ecosystem is established, it can be much less expensive to maintain.

As for the ban's enforceability, Chapman compared it to other public health issues that are addressed with laws that aren't necessarily subject to strict administration.

"It's like littering," she said. "Most people want to do the right thing, so they don't litter. The use of pesticides is a public health issue. If you have little kids and your neighbor is spraying pesticides, hopefully having the ordinance will make it easier to say something."

*John Bott*

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Posted 4:00 AM

# Maine Voices: South Portland’s proposal to ban synthetic pesticides too heavy-handed

Educating the public and creating an organics-only test plot on city property would be better first steps.

BY **DAVID DOMINGOS** SPECIAL TO THE PRESS HERALD

SOUTH PORTLAND — A big change could soon take place in your backyard if South Portland’s proposed ordinance on pesticides is finalized.

The City Council has [proposed](#) an ordinance that would mandate the use of “organic-only” pest and weed control on private and public property – banning all other pesticide use. While the intent – to be more environmentally friendly – is a good one, the real issue is that a total ban takes away all of the useful tools we all count on to protect our families and private property.

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## ABOUT THE AUTHOR

**David Domingos** is the owner of Northeast Lawn & Golf Services in South Portland.

By using the precautionary principle – the idea that a product should be treated as dangerous until scientifically proven safe – as the foundation for the ordinance’s creation, the council is setting a precedent that allows them to ban anything they want, all in the name of sustainability. This is dangerous because it disregards the rights of the private citizen and the expertise of any business being targeted.

I live in South Portland. I've been in the turf industry for more than 25 years, and I practice integrated pest management every day.

I work with my customers to educate them about integrated pest management approaches they should practice and to help them find the right program for their property and expectations. They are always asking "Why?" and "What for?" so the educational component of our service is very important. This should be the foundation of the ordinance – not an all-out ban.

Integrated pest management is a comprehensive approach that allows the use of all tools available to identify, monitor and control a problem. As a professional, I was trained to build a turf grass system from the soil up with cultural programs, and then apply fertilizers and pesticides on top as needed – not the other way around.

The ordinance does not leave us with products that work on problems like grubs or with an opportunity to take an integrated approach.

We use products in moderation and only as needed. The products we use and those available to consumers at hardware and home stores are low-risk and can be applied safely.

I believe that both organic and synthetic products have a place in our yards and parks, but we need to be able to choose both types of products for our pest problems. Right now, there are a minimal number of organic products that are somewhat effective at controlling disease-carrying insects and invasive and allergy-causing weeds. There are absolutely none that control the grubs and insects that cause severe damage to turf.

Without synthetic pesticides, there's no effective way to protect your lawn. Grub problems lead to animals tearing up lawns to eat the grubs, which means a ruined lawn and a lot of money spent to repair it.

In all my years of business, I haven't seen an organic-only program work the way people think it will. Our neighboring town of Scarborough tried an all-organic approach, and it experienced a major grub issue, forcing it to go back to synthetics to take care of it. It also saw a nearly threefold increase in the budget to maintain city property.

Like all South Portlanders, I want a healthy and safe environment for my family and my neighbors. It's important we move forward together and amend the proposed ordinance. There are more common-sense first steps we can put in place before we consider an all-out ban on the products we count on to protect our personal and shared property. One example is education on proper use.

Another could be to set up a city-owned property as an organics-only test plot for three to five years. While this is going on, educate the public regarding the products and cultural programs being used, their associated costs and why there is a difference in turf quality. At the end of the trial, hold an assessment workshop, which can be then be used as the foundation for a more common-sense ordinance and one that includes an integrated pest management approach.

Please let the South Portland City Council know that this ordinance is the wrong way to address the issue at hand.

*John Bott*

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**From:** Bott, John C.  
**Sent:** Thursday, April 21, 2016 8:38 AM  
**To:** AF-Pesticides  
**Subject:** PPH: South Portland takes more time to decide on pesticide ban

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**LOCAL & STATE**

Posted Yesterday at 8:35 PM  
Updated April 20

# South Portland takes more time to decide on pesticide ban

The City Council postpones final action on the draft ordinance so the measure can be reviewed again in a workshop.

BY KELLEY BOUCHARD STAFF WRITER  
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**SOUTH PORTLAND** — A contentious proposal to limit the use of synthetic lawn-and-garden pesticides in the city will get more thorough consideration in the weeks ahead.

The City Council postponed a final vote on the proposed partial ban Wednesday night and has scheduled a workshop on June 13. A council vote is tentatively set for June 20.

The council gave the proposed ban [unanimous preliminary approval](#) on April 4 after hearing from both supporters and opponents. At the time, councilors called for several amendments to clarify aspects of the draft ordinance, including enforcement and waiver processes.

“I think it’s really prudent that we take our time,” Councilor Patti Smith said Wednesday. “It’s a really complex issue.”

Activists on both sides of the issue say [South Portland’s effort could be copied](#) by other communities across Maine and beyond. Portland officials have announced plans to follow South Portland’s lead if it succeeds.

Supporters say the ordinance would be the most far-reaching and environmentally progressive law of its kind in the nation, following a similar measure passed last year in Ogunquit and the Healthy Lawns Act that's being rolled out in Montgomery County, Maryland.

But opponents say South Portland's proposal would be largely unenforceable as written and liable to divide neighbors into warring camps of scofflaws and watchdogs. They also say organic pesticides sometimes aren't as effective and can be toxic if used improperly.

In an April 14 memo to the council, Sustainability Coordinator Julie Rosenbach acknowledged that the ordinance would be "challenging" to enforce, especially on private property.

"Our intention is not to approach implementation in a punitive way, but rather to use education and outreach to promote organic land care practices and help the community with this transition," Rosenbach wrote. "We recognize there will likely be scofflaws, and therefore have allowed for warnings and fines if persons are caught in violation of the ordinance. This approach is consistent with other pesticide ordinances and if it proves to be problematic can be addressed in the year-three review process."

To speed up the waiver process, Rosenbach recommended that the chairperson and one other member of the proposed Pest Management Advisory Committee be authorized to rule on waiver requests within five business days. At least one of the authorized members would have to be a licensed pesticide applicator. Denials could be appealed to the city manager, who would have three business days to respond.

Rosenbach also recommended several language changes to align the proposed ordinance with state and federal law, and suggested an amendment that would ban all organic and synthetic pesticide use within 75 feet of water bodies and wetlands.

The proposed ordinance would prohibit the use of synthetic lawn-and-garden pesticides and herbicides on private as well as city-owned property. Retailers could still sell the targeted products, including glyphosate-based Round-Up, neonicotinoids and weed-and-feed applications. And residents could still buy them.

But only pesticides allowed in organic farming or exempted from federal regulation could be used within city limits. The local ban also would exempt commercial agriculture and playing surfaces at golf courses, and it would allow waivers for public health, safety and environmental threats, such as mosquitoes, poison ivy and invasive tree insects.

If approved, the ordinance would apply to city property starting May 1, 2017, and broaden to private property May 1, 2018. It would be reviewed during the third year for possible revision. Following an initial warning, violators would face escalating fines of \$200, \$500 and \$1,000 per offense.

The ordinance would apply to the municipal South Portland Golf Course and the privately owned Sable Oaks Golf Club starting May 1, 2019. Playing surfaces on the private course would be exempt from the ban, while tees and greens on the municipal course would be exempt for three years after adoption.

Twenty-six Maine communities have some sort of pesticide-control ordinance, including Ogunquit, Brunswick, Rockland, Wells, Lebanon and Waterboro.

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