

Mixing Instructions: Incompatibility may occur when tank mixing Dual Magnum and Cotoran DF. To help overcome this condition, fill the spray tank 1/4 full with water or fluid fertilizer and start agitation, add the Cotoran DF and allow it to become dispersed. Add X-77 at 0.5% volume/volume final spray (4.0 pt/100 gal), then add the Dual Magnum and finally the rest of the water or fluid fertilizer. Agitate during mixing and application to maintain a uniform suspension. Do not use fluid fertilizer as a carrier for postemergence applications.

Table 6: Dual Magnum + Cotoran DF – Cotton

| Soil Texture | Broadcast Rates Per Acre | | |
|-----------------------|--------------------------|----------|--------------------|
| | Dual Magnum (pt) | | Cotoran DF*** (lb) |
| | Area 1* | Area 2** | |
| Sand, loamy sand | DO NOT USE | | |
| Sandy loam | 0.5-1.0 | 0.8-1.0 | 1.2 |
| Loam, silt loam, silt | 0.66-1.33 | 1.0-1.33 | 1.2-1.9 |
| Fine soil | 1.0-1.33 | 1.33 | 1.9-2.4 |

*Area 1 = AR, LA, MS, Bootheel of MO and TN

**Area 2 = Eastern OK, Gulf Coast, Rio Grande Valley, and Eastern TX

***When using Cotoran 4L, use equivalent rates. Multiply lb of Cotoran DF by 1.7 to get pt of Cotoran 4L.

Postemergence: This tank mixture may be applied postemergence to cotton, but preemergence to weeds or post-emergence to both cotton and weeds for control of weeds on the Cotoran label. Apply as a directed, semi-directed, or over-the-top spray. Dual Magnum will not control emerged weeds, but will provide preemergence control of species on its label. Where rate ranges are given for Cotoran DF, use the higher rate when applying postemergence to weeds that are 2 inches or less. These treatments may be applied over previous registered treatments, including Dual Magnum, provided the maximum label rate of any product is not exceeded.

Precautions: (1) The use of Cotoran following the use of a systemic insecticide at planting may result in crop injury. (2) To avoid concentration in the seed furrow, do not make broadcast applications of Dual Magnum + Cotoran to cotton planted in furrows more than 2 inches deep. When making band applications to cotton planted in furrows deeper than 2 inches, ensure that the band width does not exceed the width of the bottom of the furrow.

Restrictions: (1) Do not apply Dual Magnum + Cotoran on sand or loamy sand soils, or in areas where water is likely to “pond” over the bed. (2) Do not use on Taloka silt loam. (3) Do not use in Gaines County, TX. (4) Do not feed treated forage or gin trash to livestock, or graze treated areas.

Refer to the Cotoran labels for further instructions, precautions, and restrictions.

TANK MIXTURE OF DUAL MAGNUM OR DUAL MAGNUM + COTORAN WITH GRAMOXONE BRANDS, TOUCHDOWN BRANDS OR ROUNDUP BRANDS FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where cotton is planted directly into a cover crop, stale seedbed, or previous crop residues, the contact herbicides Gramoxone brands, Touchdown brands or Roundup brands may be added to a tank mix of either Dual Magnum or Dual Magnum + Cotoran. When used as directed, the Gramoxone brands portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Touchdown or Roundup brand combinations will control emerged annual and perennial weeds when applied as directed on the Touchdown or Roundup label. The Dual Magnum and Dual Magnum + Cotoran portion of the tank mixture provides preemergence control of the weeds listed on this label in the Dual Magnum and Dual Magnum + Cotoran sections, respectively.

Refer to the label of each product used in combination and observe the planting details, information regarding application, geographical restrictions, and all other precautions and restrictions. Refer to **Mixing Instructions** under **Tank Mixture with Cotoran DF** section.

Application: Apply before, during, or after planting, but before the cotton emerges. Apply Dual Magnum at 0.8-1.0 pt/A on sandy loams, *medium-*, and *fine-textured* soils. Refer to Table 6 for the Cotoran DF rates.

Gramoxone Brands: Apply as directed on the product label. This treatment will not control weeds taller than 6 inches.

Note: Do not apply combinations containing Gramoxone brands in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

Touchdown Brands or Roundup Brands: See the Touchdown or Roundup label for weeds controlled, listed rates, and other use directions.

Precaution: Do not apply Dual Magnum + Cotoran 4L + Roundup in tank mixture because of compatibility problems.

Apply in 20-60 gal of water or fluid fertilizer per acre with ground equipment.

Precautions: (1) If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days, or where the seeding slit has not been properly closed. (2) Refer to the Cotoran labels and the **Tank Mixture with Cotoran DF** section of this label for further instructions, precautions, and restrictions.

Restriction: Do not use in Gaines County, TX.

TANK MIXTURE WITH MSMA, MSMA + CAPAROL, OR MSMA + COTORAN

Dual Magnum may be tank mixed with MSMA in water and applied postemergence-directed for control of emerged weeds listed on the MSMA product label and residual preemergence control of weeds controlled by Dual Magnum. The addition of Caparol or Cotoran will add control of weed species on their respective labels.

Postemergence-Directed (AL, AR, AZ, CA, FL, GA, LA, MS, NC, NM, OK, SC, TN, TX, VA, and Bootheel of MO): Apply Dual Magnum + MSMA postemergence-directed to cotton at least 3 inches tall according to the directions, restrictions, and precautions on the MSMA product label, as well as the directions, restrictions, and precautions for use of Dual Magnum in the section for **Cotton – Dual Magnum Alone – Postemergence**. These treatments may be applied over previous registered treatments, including Dual Magnum, provided the maximum label rate of any product is not exceeded. Cotoran or Caparol may be added to the Dual Magnum + MSMA tank mixture according to the respective label directions for application to cotton at least 3 inches tall. When these mixtures are used, follow the mixing instructions for Dual Magnum + Caparol or Cotoran and then add the MSMA product.

Restrictions: (1) Do not use Dual Magnum in tank mix with premixes of MSMA plus herbicides other than those registered for use in tank mixture with Dual Magnum on cotton. (2) Do not apply after first cotton bloom.

TANK MIXTURE WITH TREFLAN FOR POST-DIRECTED FOLLOWED BY SOIL INCORPORATION APPLICATIONS

Dual Magnum may be applied as a tank mixture with Treflan in cotton for improved late-season weed control when used as an incorporated lay-by type application. This combination may be applied after the cotton is at least 3 inches tall and has reached the 4 true-leaf stage. Make the application directed to the soil surface and away from the crop foliage. Incorporate using a sweep or rolling type cultivator to provide uniform and shallow mixing into the top 2 inches of soil. Refer to each product label for the appropriate application rates by soil type and for this application timing and follow all product use limitations and restrictions.

TANK MIXTURE WITH TOUCHDOWN BRANDS OR ROUNDUP BRANDS FOR USE ON ROUNDUP READY COTTON ONLY

Apply Dual Magnum as a tank mixture with Touchdown or Roundup in water postemergence over-the-top or postemergence-directed for control of emerged weeds listed on the Touchdown or Roundup labels and for residual preemergence control of weeds listed on the Dual Magnum label. See the **Cotton – Dual Magnum Alone – Postemergence** section of this label for rates and timings of Dual Magnum and follow the Touchdown or Roundup label for their respective rates, application method, and application timing restrictions. Refer to the Touchdown brand or Roundup brand label and follow appropriate use directions, application procedures, precautions, and restrictions.

Precautions: (1) Postemergence over-the-top applications of this tank mixture may cause temporary injury in the form of necrotic spotting to exposed cotton leaves, which will not affect normal plant development. (2) Do not add additional spray adjuvants, surfactants, fertilizer additives, or pesticides to this tank mixture if applied postemergence over-the-top, or unacceptable injury may occur.

Restrictions: (1) Do not apply this tank mixture postemergence to any cotton variety unless it is designated Roundup Ready and unless the Touchdown or Roundup formulation being used is registered for postemergence use in Roundup Ready Cotton. (2) Do not apply Touchdown or Roundup postemergence over-the-top to cotton past the growth stage limit specified on their respective labels. (3) Do not use on sand or loamy sand soils in Gaines County, TX.

SOYBEAN, IMMATURE SEED

Dual Magnum may be applied preplant or preemergence for the control or suppression of grass and small seeded broad-leaf weeds in immature-seed soybean or other food-grade soybeans. For specific rates, see the rate table listed below.

Preplant Surface-Applied: For minimum-tillage or no-tillage systems only, Dual Magnum alone may be applied up to 45 days before planting. Use only split applications for treatments made 30-45 days before planting, with 2/3 the listed broadcast rate for the crop and soil texture applied initially and the remaining 1/3 applied at planting. Treatments less than 30 days before planting may be made either as a split or a single application. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, Gramoxone brands, Touchdown, or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

Preplant Incorporated: Apply Dual Magnum to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, apply and incorporate Dual Magnum after bed formation, unless specified otherwise.

Preemergence: Apply Dual Magnum during planting (behind the planter) or after planting, but before weeds emerge.

Dual Magnum Broadcast Rates Per Acre

| Soil Texture | Percent Organic Matter in Soil | |
|--------------|--------------------------------|----------------|
| | <3% | ≥3% |
| Coarse | 1 – 1.33 pt | 1.33 pt |
| Medium | 1.33 – 1.67 pt | 1.33 – 1.67 pt |
| Fine | 1.33 – 1.67 pt | 1.67 – 2.0 pt |

Precaution: Dual Magnum will not control emerged weeds. Control weeds that are present by another means, e.g., mechanical means or by another herbicide.

Restrictions: (1) Do not cut for hay within 120 days following a Dual Magnum application. (2) Do not use for forage within 60 days following a Dual Magnum application. (3) Do not apply more than 2.0 pt/A of Dual Magnum during any one crop year.

GRASSES GROWN FOR SEED (ID, OR, WA) – DUAL MAGNUM APPLIED ALONE

To control weeds and volunteer grasses in established grasses grown for seed, apply Dual Magnum to established stands of tall fescue, orchardgrass, perennial ryegrass, fine fescue, bentgrass, and Kentucky bluegrass just before, during, or immediately following the first fall rains or just before or during a late summer or early fall irrigation, but before target grasses emerge. The seed crop must have had one seed harvest or been established at least one year. Evenly spread, remove, or burn the post-harvest residue (straw) before applying Dual Magnum. Rainfall or irrigation is required after application and before weed emergence for best control. Dual Magnum will provide preemergence control/suppression of volunteer seedlings of perennial ryegrass, fine fescue spp., tall fescue, orchardgrass, bentgrass and Kentucky bluegrass. Dual Magnum will control those weed species listed in the **Dual Magnum Alone** section of the Dual Magnum label and will suppress or control rattail fescue, annual bluegrass, Italian ryegrass, California brome, downy brome, and roughstalk bluegrass.

Apply Dual Magnum by ground equipment in a minimum of 10 gallons of water per acre using the rate listed below according to grass species. Hay may be harvested anytime between seed harvest and the next application of S-metolachlor.

| Established Grass Crop Grown for Seed | Pt/A |
|---------------------------------------|----------|
| Fine fescue spp. | 1.0 |
| Perennial ryegrass | 1.0 |
| Bentgrass | 1.0-1.33 |
| Kentucky bluegrass | 1.0-1.33 |
| Orchardgrass | 1.0-1.33 |
| Tall fescue | 1.0-1.33 |

Precautions: (1) Avoid application after the 15th of November or poor control may result. (2) Tank mixtures with other pesticides, or the addition of an adjuvant, can increase the risk of crop injury. (3) Application to perennial ryegrass and fine fescue stands under stress may cause crop injury. (4) If weed escapes occur following a Dual Magnum application, an application of a postemergence herbicide may be necessary to control escapes. When making such an application, follow all directions, precautions and restrictions on the label of the postemergence herbicide. (5) Control may be decreased if excessive straw from the previous harvest is present at application and/or insufficient rainfall/irrigation occurs.

Restrictions: (1) Do not graze forage regrowth for 60 days following application west of the Cascades. (2) In areas east of the Cascades, do not graze forage regrowth for 150 days following application. (3) Apply Dual Magnum only once per crop year.

HORSERADISH

Apply a single application of Dual Magnum at a broadcast rate of 1.0-1.33 pt/A to the soil surface after planting, but before weeds or crop emergence (i.e., preemergence). Use lower rates on soils relatively coarse-textured and higher rates on fine-textured soils. A band application may also be used, applying proportionally less spray mixture on the area actually treated. Dual Magnum will not control emerged weeds. Control emerged weeds with an appropriate registered foliar herbicide or by mechanical means. Harvest horseradish at normal timing.

Restrictions: (1) Make only one application of Dual Magnum per crop. (2) Do not apply more than 1.33 pt/A of Dual Magnum per crop.

PEANUTS – DUAL MAGNUM ALONE

Apply Dual Magnum, either preplant incorporated, postplant incorporated, preemergence, or lay-by, using the appropriate rate specified below. **Preplant Incorporated or Preemergence:** Follow instructions for use of Dual Magnum alone under **Application Procedures**. **Postplant Incorporated:** Apply and shallowly incorporate Dual Magnum into the soil after planting, but before peanut germination. Incorporation depth and incorporating implements must be kept above the seed, or seed will be damaged. **Lay-by:** Apply Dual Magnum to the soil immediately after the last normal cultivation.

Apply Dual Magnum alone, preplant incorporated, postplant incorporated, preemergence, or lay-by, at a broadcast rate of 1.0-1.33 pt/A in the Southeast* and 0.8-1.33 pt/A in NM, OK, and TX. Dual Magnum alone may be applied as directed after any of the following preplant incorporated herbicides when used according to their label use rates, directions, and restrictions: Balan; Treflan E.C.; Sonalan; Pursuit; or Prowl.

*In the Southeast, use 1.33-2.0 pt/A and apply preemergence for partial control of Florida beggarweed.

Restrictions: (1) Preharvest Interval (PHI): Do not apply within 90 days of harvest. (2) Do not graze or feed peanut forage or fodder to livestock for 30 days following application.

PEANUTS – DUAL MAGNUM COMBINATIONS

TANK MIXTURE WITH BALAN L.C.

Dual Magnum + Balan tank mixture applied preplant incorporated controls those weeds listed under **Dual Magnum Applied Alone** and those weeds as listed on the Balan label.

Apply 1.0-1.33 pt/A of Dual Magnum + the labeled use rate of Balan in a minimum of 10 gal of spray volume per acre for ground application or in a minimum of 5.0 gal of spray volume per acre for aerial application. Follow all directions, restrictions and precautions on the Balan label for soil preparation, application and incorporation of this tank mix. Apply and incorporate Dual Magnum + Balan up to 14 days prior to planting.

Multiple Applications: Where weed pressure is heavy or where species difficult to control are expected, Dual Magnum is most effective when used as follows:

Southeast Only (AL, FL, GA, NC, SC, VA)

Preplant Incorporated: Apply Dual Magnum preplant incorporated as directed under **Peanuts – Dual Magnum Alone** or apply Dual Magnum + Balan preplant incorporated as directed previously in this section. Refer to the respective section for weeds controlled.

OR

Preemergence before “ground cracking”: Apply Dual Magnum any time from preemergence up to “ground cracking” at 1.0-2.0 pt/A for extended control of weeds not yet emerged. Refer to the **Dual Magnum Applied Alone** section for a list of weeds controlled.

Follow the PPI or PRE application by:

Lay-by: Apply Dual Magnum at lay-by as directed under **Peanuts – Dual Magnum Alone**. Use only when late germinating weeds are expected to be a problem. Refer to the **Dual Magnum Applied Alone** section for a list of weeds controlled.

Restrictions: (1) Preharvest Interval (PHI): Do not apply within 90 days of harvest. (2) Do not use Dual II Magnum®, or Dual IIG Magnum® after peanuts have emerged. (3) Do not apply more than the equivalent of 2.67 lb of active ingredient of Dual Magnum per acre during any one year. If Dual II Magnum is used as a sequential treatment, the lb of active ingredient (1.0 pt = 0.95 lb) plus the lb of active ingredient of Dual Magnum must not exceed 2.67 lb. (4) Do not graze or feed peanut forage or fodder to livestock for 30 days following application.

Southwest Only (NM, OK, TX)

1st Application: Apply Dual Magnum preplant incorporated or preemergence or at-cracking as directed previously in this section. Refer to the respective section for weeds controlled.

2nd Application: Apply Dual Magnum at lay-by as directed under **Peanuts – Dual Magnum Alone** on that label. Use only when late germinating weeds are expected to be a problem. Refer to the **Dual Magnum Applied Alone** section for a list of weeds controlled.

Restrictions: (1) Preharvest Interval (PHI): Do not apply within 90 days of harvest. (2) Do not use Dual II Magnum, or Dual IIG Magnum after peanuts have emerged. (3) Do not apply more than the equivalent of 2.67 lb of active ingredient of Dual Magnum per acre during any one year. If Dual II Magnum is used as a sequential treatment, the lb of active ingredient (1.0 pt = 0.95 lb) plus the lb of active ingredient of Dual Magnum must not exceed 2.67 lb. (4) Do not graze or feed peanut forage or fodder to livestock for 30 days following application.

TANK MIXTURE OR SEQUENTIALLY WITH PURSUIT

The tank mixture or sequential treatment of Dual Magnum and Pursuit controls all weeds controlled by Dual Magnum alone and by Pursuit alone. Refer to the **Dual Magnum Applied Alone** section for weeds controlled by Dual Magnum and to the Pursuit label for weeds controlled by Pursuit.

Refer to the respective labels for application methods, timing, rates, restrictions, and precautions; and use in accordance with the more restrictive label. Do not exceed the label rate of either product. Dual Magnum will not control emerged weeds.

TANK MIXTURE WITH SONALAN

The tank mixture controls all weeds controlled by Dual Magnum alone and by Sonalan alone. Refer to the **Dual Magnum Applied Alone** section for weeds controlled by Dual Magnum and to the Sonalan label for weeds controlled by Sonalan.

Apply Dual Magnum + Sonalan preplant incorporated using the appropriate rate from Table 7. Follow the directions for soil preparation procedures for Sonalan.

Table 7: Dual Magnum + Sonalan – Peanuts

| Soil Texture | Broadcast Rates Per Acre | | | |
|--------------|--------------------------|-------------|-------------|-------------|
| | Southeast | | NM, OK, TX | |
| | Dual Magnum | Sonalan | Dual Magnum | Sonalan |
| COARSE | 1.0-1.33 pt | 1.25-2.0 pt | 0.8-1.33 pt | 1.25-2.0 pt |
| MEDIUM | 1.0-1.33 pt | 1.75-2.5 pt | 0.8-1.33 pt | 1.75-2.5 pt |
| FINE | 1.0-1.33 pt | 2.25-3.0 pt | 0.8-1.33 pt | 2.25-3.0 pt |

Follow all use directions, limitations, precautions, and restrictions regarding application to peanuts on the Dual Magnum and Sonalan labels.

TANK MIXTURE WITH PROWL

Dual Magnum + Prowl applied preplant incorporated controls all weeds controlled by Dual Magnum alone plus Texas panicum, field sandbur, johnsongrass from seed, lambsquarters, kochia, annual spurge, and other species on the Prowl label. Apply Dual Magnum + Prowl by ground or by aerial equipment within 14 days before planting. Incorporate into the top 1-2 inches of soil before planting and within 7 days of application, using a finishing disk or similar implement capable of providing uniform incorporation. If peanuts will be planted on beds, apply and incorporate after bed formation. Refer to the **Incorporation** instructions of the respective labels for additional directions.

Apply Dual Magnum + Prowl preplant incorporated, using the appropriate rates from Table 8.

Table 8: Dual Magnum + Prowl – Peanuts

| Soil Texture | Broadcast Rates Per Acre | |
|------------------|--------------------------|-----------------------------|
| | NM, OK, TX | Other Peanut Growing States |
| | Dual Magnum + Prowl | Dual Magnum + Prowl |
| Sand, loamy sand | 0.8 + 1.0-1.5 pt | 1.0-1.33 + 1.5-2.0 pt |
| Sandy loam | 0.8-1.0 + 1.0-1.5 pt | 1.0-1.33 + 1.5-2.0 pt |
| Fine soil | 1.33 + 1.0-1.5 pt | 1.33 + 1.5-2.0 pt |

Follow all use directions, limitations, precautions, and restrictions regarding application to peanuts on the Dual Magnum and Prowl labels.

TANK MIXTURE OR SEQUENTIALLY WITH GRAMOXONE BRANDS

Dual Magnum + Gramoxone brands applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **Dual Magnum Applied Alone** section of this label. Apply Gramoxone brands plus the appropriate Dual Magnum rate from the **Peanuts – Dual Magnum Alone** section in a minimum spray volume of 20 gal/A with ground equipment. A second application of Dual Magnum + Gramoxone brands may be made 28 days after ground cracking. (Refer to the **Peanuts – Dual Magnum Combinations – Multiple Applications** section of this label for geographical areas where multiple applications are allowed.) Refer to the Gramoxone brands label and follow all directions, limitations, and restrictions.

TANK MIXTURE OR SEQUENTIALLY WITH GRAMOXONE BRANDS + BASAGRAN

The addition of Basagran to the Dual Magnum + Gramoxone brands mixture will result in improved control of such problem broadleaf weeds as prickly sida, cocklebur, smartweed, and bristly starbur. Dual Magnum + Gramoxone brands + Basagran applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **Dual Magnum Applied Alone** section of this label. Apply Basagran + Gramoxone brands with the appropriate Dual Magnum rate from the **Peanuts – Dual Magnum Alone** section in a minimum spray volume of 20 gal/A with ground equipment. A second application of Dual Magnum + Gramoxone brands + Basagran may be made 28 days after ground cracking. (Refer to the **Peanuts – Dual Magnum Combinations – Multiple Applications** section of this label for geographical areas where multiple applications are allowed.) Refer to the Gramoxone brands and Basagran labels and follow all directions, limitations, and restrictions.

TANK MIXTURE OR SEQUENTIALLY WITH GRAMOXONE BRANDS + BUTYRAC 200 OR BUTOXONE 200

The addition of Butyrac 200 or Butoxone 200 to the Dual Magnum + Gramoxone brands mixture will result in improved control of such problem broadleaf weeds as sicklepod, morningglory, and cocklebur. Dual Magnum + Gramoxone brands + Butyrac 200 or Butoxone 200 applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **Dual Magnum Applied Alone** section of this label. Apply Gramoxone brands + Butyrac 200 or Butoxone 200 with the appropriate Dual Magnum rate from the **Peanuts – Dual Magnum Alone** section in a minimum spray volume of 20 gal/A with ground equipment. A second application of Dual Magnum + Gramoxone brands + Butyrac 200 or Butoxone 200 may be made 28 days after ground cracking. (Refer to the **Peanuts – Dual Magnum Combinations – Multiple Applications** section of this label for geographical areas where multiple applications are allowed.) Refer to the Gramoxone brands, Butyrac 200 or Butoxone 200 labels and follow all directions, limitations, and restrictions.

TANK MIXTURE OR SEQUENTIALLY WITH BASAGRAN

Dual Magnum + Basagran applied at ground cracking or sequentially will control species on the Basagran label and provide residual control of species listed in the **Dual Magnum Applied Alone** section of this label. Apply the labeled rate of Basagran in 20 gal/A, depending on weed species and stage of growth as specified on the Basagran label, with the appropriate Dual Magnum rate from the **Peanuts – Dual Magnum Alone** section. A second application of the combination may be made before peanut pegging. (Refer to the **Peanuts – Dual Magnum Combinations – Multiple Applications** section of this label for geographical areas where multiple applications are allowed.) A second Basagran application may be made in all peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

TANK MIXTURE OR SEQUENTIALLY WITH BASAGRAN + BUTYRAC 200 OR BUTOXONE 200

Dual Magnum + Basagran + Butyrac 200 or Butoxone 200 applied at ground cracking or sequentially will control species on the Basagran label and on the Butyrac or Butoxone labels, especially morningglories. Apply the labeled rate of Basagran + the labeled rate of Butyrac 200 or Butoxone 200 in 20 gal/A, depending on weed species and stage of growth as specified on the Basagran label, with the appropriate Dual Magnum rate from the **Peanuts – Dual Magnum Alone** section. A second application of the combination may be made before peanut pegging. (Refer to the **Peanuts – Dual Magnum Combinations – Multiple Applications** section of this label for geographical areas where multiple applications are allowed.) A second Basagran + Butyrac 200 or Butoxone 200 application may be made in all peanut growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

TANK MIXTURE OR SEQUENTIALLY WITH STORM®

Dual Magnum + Storm applied at ground cracking through 2 expanded tetrafoliate leaves or Dual Magnum applied according to the directions for **Dual Magnum Alone** and followed with an at-cracking through postemergence treatment of Storm as specified on its label will control species on the Storm label and provide residual control of species listed in the **Dual Magnum Applied Alone** section of this label. Dual Magnum will not control emerged weeds. Control weeds that are present by another means, e.g., mechanical means or by another herbicide. Refer to the **Peanuts – Dual Magnum Alone** section and to the Storm label and follow all directions, limitations, and restrictions for each product.

BEANS, PEAS, AND LENTILS – DUAL MAGNUM ALONE

Beans, peas, and lentils, including garbanzo, great northern beans, kidney beans, lima beans, mung beans, navy beans, peas (English*; southern peas, such as blackeye, pinkeye, crowder, etc.), pinto beans, snap beans (green, wax, string), lentils, and lupines (sweet, white, white sweet, and grain).

Fall Application:

- Apply after September 30 in ND, SD, MN, WI, and north of Route 30 in IA.
- Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- Apply after October 31 north of Route 136 in IL.

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67-2.0 pt/A on *medium-textured* and 2.0 pt/A on *fine-textured soils*. A tillage operation may precede the application. When a fall and/or a spring tillage follows application, avoid exceeding an incorporation depth greater than 2-3 inches. Minimize furrow and ridge formation in the tillage operations.

Restrictions: (1) If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for beans, peas, and lentils. (2) Do not apply to frozen ground.

Spring Application:

Apply Dual Magnum, either preplant incorporated or preemergence, using the appropriate rate specified below. **Preplant Incorporated or Preemergence:** Follow instructions for use of Dual Magnum alone under **Application Procedures**. On *coarse soils* with less than 3% organic matter, apply 1.0-1.33 pt/A of Dual Magnum or 1.33 pt/A if organic matter is 3% or greater. On *medium soils*, apply 1.33-1.67 pt/A of Dual Magnum. On *fine soils*, apply 1.33-1.67 pt/A of Dual Magnum if organic matter content is less than 3%, or 1.67-2.0 pt/A if organic matter content is 3% or greater.

*On English peas, use only preemergence applications. If soils are cold and wet during pea germination and emergence, the use of Dual Magnum may delay maturity and/or reduce yields.

Restrictions: (1) Do not cut for hay within 120 days following a Dual Magnum application. (2) Do not use for forage within 60 days following a Dual Magnum application. (3) Do not apply more than 2.0 pt/A of Dual Magnum during any one crop year.

BEANS, PEAS, AND LENTILS – DUAL MAGNUM COMBINATIONS

Restriction: When applying Dual Magnum in combination on beans, peas, and lentils, do not cut for hay within 120 days following application.

TANK MIXTURE AND SEQUENTIAL APPLICATIONS WITH EPTAM – BEANS (GREEN OR DRY)

This mixture controls all weeds controlled by Dual Magnum alone and by Eptam alone. Refer to the **Dual Magnum Applied Alone** section of this label for weeds controlled by Dual Magnum alone and to the Eptam label for weeds controlled by Eptam.

Preplant Incorporated: Follow instructions for use of Dual Magnum alone under **Application Procedures**. **Sequential:** Apply Eptam alone preplant incorporated, as specified on that label. Follow with a preemergence application of Dual Magnum, at rates specified for Dual Magnum alone, during planting (behind the planter) or after planting, but before the weeds or crop emerge.

Refer to the **Product Information** section of this label and to the Eptam label for weather, cultural practices, and all other precautions and limitations that affect performance of these products.

Apply the labeled rate of Eptam 7E* with Dual Magnum as specified. On *coarse soils*, apply 0.8 pt/A of Dual Magnum if organic matter content is less than 3%, or 1.0 pt/A if organic matter content is 3% or greater. On *medium soils*, apply 1.0 pt/A of Dual Magnum if organic matter content is less than 3%, or 1.33 pt/A if organic matter content is 3% or greater. On *fine soils*, apply 1.33 pt/A of Dual Magnum if organic matter is less than 3%, or 1.33-1.67 pt/A if organic matter is 3% or greater.

*Refer to the Eptam label for rate limitations depending on geographical area, and for species and varietal restrictions.

Follow all restrictions and precautions on the respective Eptam 7E label and in the **Beans, Peas, and Lentils – Dual Magnum Alone** section of this label.

TANK MIXTURE WITH TREFLAN – BEANS (DRY – KIDNEY, NAVY, PINTO, ETC.; LIMA; AND SNAP)

Dual Magnum + Treflan tank mix applied preplant incorporated controls those weeds listed under **Dual Magnum Applied Alone** and those weeds listed for Treflan alone on the Treflan label. Dual Magnum + Treflan may be applied by ground or by aerial equipment and incorporated up to 14 days prior to planting. Follow the most restrictive procedures on this label and on the respective Treflan label, using equipment that provides uniform 2-inch incorporation.

Apply Dual Magnum + Treflan tank mix using the appropriate Dual Magnum rate specified for Dual Magnum alone, and the Treflan rate from the Dry Beans, and the Lima and Snap Beans sections of the respective Treflan label. Choose the product rate for the specific soil texture/organic matter classification and weed species expected.

Follow all restrictions and precautions on the respective Treflan label and in the **Beans, Peas, and Lentils – Dual Magnum Alone** section of this label.

POTATOES – DUAL MAGNUM ALONE

Apply Dual Magnum, either incorporated, preemergence, or postemergence to potatoes after hilling/lay-by, according to directions specified below for control of weeds listed under the **Product Information** section. Within a rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil. For applications by center pivot irrigation, see the **Center Pivot Irrigation Application** section of this label.

Incorporated: Apply Dual Magnum at 1.0-2.0 pt/A to the soil and incorporate into the top 3 inches before planting, using a finishing disk, harrow, rolling cultivator, or similar implement. During planting and later cultural practices, avoid bringing untreated soil to the surface. Postplant incorporated application may be made any time after planting to drag-off, but before potato emergence. Use an implement that evenly distributes Dual Magnum in the top 2 inches of soil. Do not damage potato seed pieces or sprouts with incorporation equipment.

Preemergence: Apply Dual Magnum at 1.0-2.0 pt/A, either after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge. Up to 2.6 pt/A of Dual Magnum alone may be used where soil organic matter is between 6% and 20%.

Postemergence After Hilling/Lay-by: Apply 1.67 pt/A of Dual Magnum postemergence to potatoes through after hilling/ at lay-by to control Dual Magnum-sensitive species for remainder of the growing season. This application will not control emerged weeds. It may be applied over a previous Dual Magnum application, but do not apply more than 3.6 pt/A of Dual Magnum in a single crop season.

Precautions: (1) If cool, wet soil conditions occur after application, Dual Magnum may delay maturity and/or reduce yield of Superior and other early maturing potato varieties. (2) These directions for use do not apply to sweet potatoes or yams.

Restrictions: (1) Preharvest interval: Do not harvest potatoes treated with Dual Magnum within 60 days after the at-planting to drag-off application, or within 40 days after a lay-by application. (2) Do not use on muck or peat soils. (3) Do not apply both as a preemergence and an incorporated treatment. (4) Do not apply more than 3.6 pt/A of Dual Magnum in a single crop season.

POTATOES – DUAL MAGNUM COMBINATIONS

TANK MIXTURE WITH TRICOR

In addition to those weeds controlled by Dual Magnum alone, Dual Magnum applied in tank mix combination with, or sequentially with, any of the registered TriCor formulations, also controls the following broadleaf weeds: cocklebur*, hairy nightshade*, hemp sesbania, jimsonweed*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard.

*Partially controlled.

Dual Magnum at 1.0-2.0 pt/A plus the labeled TriCor use rate may be used preemergence or postemergence to potatoes through after last hilling. Apply 1.0-1.33 pt/A of Dual Magnum on *coarse soils* and 1.33-2.0 pt/A on other soil textures. Within this rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil. Dual Magnum will not control emerged weeds.

Refer to the TriCor label for precautionary statements, restrictions, application information, center pivot irrigation application, weeds controlled, and varietal limitations.

Precaution: Postemergence applications to potatoes, with the exception of center pivot application, can be made only as a directed or semi-directed spray to avoid chlorosis, minor necrosis, or leaf distortion. These directions for use do not apply to sweet potatoes or yams.

Restriction: Do not use this tank mixture on muck or peat soils.

Refer to the **Product Information** section of this label and to the TriCor label for precautionary statements, restrictions, application information, and weeds controlled.

DUAL MAGNUM + LOROX TANK MIXTURE (EAST OF ROCKY MOUNTAINS)

Dual Magnum may be applied in a tank mix combination with any of the registered Lorox formulations as a preemergence broadcast application to potatoes. Apply to the soil surface after planting and before emergence of the crop or after final drag-off according to the rates specified in Table 9.

Table 9: Dual Magnum + Lorox – Potatoes (East of Rocky Mountains)

| Soil Texture | Broadcast Rates Per Acre | | | |
|--|-----------------------------------|------------|---------------------|------------|
| | 1% to Less Than 3% Organic Matter | | 3-5% Organic Matter | |
| | Dual Magnum | Lorox* | Dual Magnum | Lorox* |
| COARSE Sandy loam | 1.0 pt | 1.0-1.5 lb | 1.33 pt | 1.5-2.0 lb |
| MEDIUM Loam, silt loam, silt | 1.33 pt | 1.5-2.0 lb | 1.67-2.0 pt | 2.0-2.5 lb |

*When using Lorox L or Lorox DF, use equivalent rates. One pt of Lorox L equals 1.0 lb of Lorox DF.

Restrictions: (1) Do not use on sands or loamy sands. (2) Do not incorporate or spray over the top of emerged potatoes.

Refer to the **Product Information** section of this label and to the Lorox label for precautionary statements, restrictions, application information, and weeds controlled.

TANK MIXTURE WITH PROWL 4E

In addition to the weeds controlled by Dual Magnum alone, this tank mixture with Prowl 4E controls such problem species as kochia, lambsquarters, purslane, annual spurge, stinging nettle, and others specified on the Prowl 4E Alone label. Apply Dual Magnum + Prowl 4E preemergence, preemergence incorporated, or early postemergence according to the specific directions on the Prowl 4E label, using the rates in Table 10.

Table 10: Dual Magnum + Prowl 4E – Potatoes

| Soil Texture | Broadcast Rates Per Acre | |
|--------------|-----------------------------|-----------------------------|
| | Less Than 3% Organic Matter | More Than 3% Organic Matter |
| | Dual Magnum + Prowl 4E* | Dual Magnum + Prowl 4E* |
| COARSE | 1.0-1.33 pt + 1.0-1.5 pt | 1.0-1.33 pt + 1.0-1.5 pt |
| MEDIUM | 1.33 pt + 1.5-2.0 pt | 1.33-1.67 pt + 2.0-3.0 pt |
| FINE | 1.33-1.67 pt + 2.0-3.0 pt | 1.67-2.0 pt + 3.0 pt |

*When using other formulations of Prowl, use equivalent rates of active ingredient.

Refer to the Dual Magnum and Prowl 4E labels and observe all directions, timings, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

TANK MIXTURE WITH PROWL 4E + EPTAM

In addition to the weeds controlled by Dual Magnum alone, this tank mixture will control those species on the Prowl 4E and Eptam labels. Refer to the Dual Magnum + Prowl 4E labels for rates of those products and add Eptam 7E at the labeled rate, depending on geographical area. Refer to the respective Dual Magnum, Prowl 4E, and Eptam labels and observe all directions, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

PUMPKIN – DUAL MAGNUM ALONE

Preemergence

Apply Dual Magnum preemergence (before the weeds have emerged) at 1.0 to 1.33 pt/A as an inter-row or inter-hill application in pumpkin. Leave 1 foot of untreated area over the row, or 6 inches to each side of the planted hill and/or any emerged pumpkin foliage (inter-row or inter-hill means not directly over the planted seed or young pumpkin plants). Use the lower Dual Magnum rate on soils light in texture (loamy sand or lighter) and low in soil organic matter (less than 3%). Dual Magnum applied as a broadcast spray over the planted row or hill, or applications made directly to crop foliage will increase the risk of injury to the pumpkin crop such as stand loss, delayed maturity, and loss of yield.

Dual Magnum will not control emerged weeds. Control weeds that are present by another means, e.g., by mechanical means or by another herbicide.

Restriction: Preharvest Interval (PHI): Do not harvest pumpkin within 30 days of the Dual Magnum application.

RHUBARB

Apply Dual Magnum at a broadcast rate of 0.67-1.33 pt/A to the soil surface in early spring, prior to crop emergence. Use lower rates on soils relatively coarse-textured and higher rates on fine-textured soils. A band application may also be used, applying proportionally less spray mixture on the area actually treated. Dual Magnum will not control emerged weeds. Control emerged weeds with an appropriate registered foliar herbicide or by mechanical or physical means.

Restrictions: (1) Preharvest Interval (PHI): Do not harvest rhubarb within 62 days of the Dual Magnum application. (2) Make only one application of Dual Magnum per crop. (3) Do not apply more than 1.33 pt/A of Dual Magnum per crop.

SAFFLOWERS – DUAL MAGNUM ALONE

Preplant Incorporated or Preemergence: Follow instructions for use of Dual Magnum alone under **Application Procedures**. On *coarse soils*, apply 1.0-1.33 pt/A of Dual Magnum if organic matter content is less than 3%, or 1.33 pt/A if organic matter is 3% or greater. On *medium soils*, apply 1.33-1.67 pt/A of Dual Magnum. On *fine soils*, apply 1.33-1.67 pt/A of Dual Magnum if organic matter content is less than 3%, or 1.67-2.0 pt/A if organic matter content is 3% or greater.

GRAIN OR FORAGE SORGHUM (SEED TREATED WITH CONCEP®) – DUAL MAGNUM ALONE

Apply Dual Magnum preplant surface, preplant incorporated, preemergence or postemergence using the appropriate rate specified below. Apply Dual Magnum alone only when the sorghum seed has been properly treated with Concep seed treatment. Preplant or preemergence applications of Dual Magnum to sorghum not treated with Concep seed treatment will result in crop death.

Fall Application for Italian Ryegrass Control: Dual Magnum may be applied for residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*). Apply Dual Magnum at 1.33-1.67 pt/A in the fall (September 1-December 1) after harvest of the previous crop and prior to Italian ryegrass emergence. Use the lower Dual Magnum rate for coarse-textured soils and the higher rate for fine-textured soils. A tillage operation may precede the application. If tillage follows the Dual Magnum application, avoid incorporating to a depth greater than 2-3 inches. For fall applications after emergence of glyphosate-resistant Italian ryegrass, Gramoxone brands can be tank mixed with Dual Magnum to control emerged ryegrass. Refer to the Gramoxone brands label for specific rates, application instructions and restrictions. Other registered herbicides may be tank mixed with Dual Magnum for control or improved control of other weeds present at the time of application.

Restrictions: (1) Do not apply Dual Magnum to frozen ground. (2) If a spring application is made, do not apply Dual Magnum or any other product containing S-metolachlor the following spring to grain or forage sorghum.

Preplant Surface-Applied: Refer to instructions for use of Dual Magnum under the **Application Procedures** section on this label. For minimum-tillage or no-tillage systems only, Dual Magnum may be applied up to 45 days before planting in CO, IA, IL, KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting, with $\frac{2}{3}$ of the broadcast rate applied initially and the remaining $\frac{1}{3}$ at planting. Apply 1.5 pt/A of Dual Magnum on *medium soils* or 1.67 pt/A on *fine soils*. Treatments less than 30 days prior to planting may be made either as a split or single application. Apply 1.33 pt/A of Dual Magnum on *coarse soils* not more than 2 weeks prior to planting. Under dry conditions, irrigate after application to move Dual Magnum into the soil.

Preplant Incorporated or Preemergence: Refer to instructions for use of Dual Magnum under the **Application Procedures** section on this label. Broadcast 1.0-1.33 pt/A of Dual Magnum on *coarse soils*, 1.33-1.5 pt/A on *medium soils*, or 1.33-1.67 pt/A on *fine soils*.

Postemergence: Refer to instructions for use of Dual Magnum under the **Application Procedures** section on this label. Dual Magnum may be applied broadcast postemergence at 1.0-1.33 pt/A on *coarse soils*, 1.33-1.5 pt/A on *medium soils*, or 1.33-1.67 pt/A on *fine soils*. Dual Magnum will not control emerged weeds. Therefore, emerged weeds must be controlled by cultural or chemical means. When applied alone, Dual Magnum will be safe to emerged sorghum. The risk of sorghum injury increases when adjuvants (e.g., non-ionic, crop oil), Nitrogen sources (e.g., AMS, UAN) or fertilizers are applied with Dual Magnum.

Precautions: (1) If sorghum seed is not properly treated with Concep seed treatment, preplant and preemergence applications of Dual Magnum will severely injure the crop. (2) Under high soil moisture conditions prior to sorghum emergence, injury may occur following preplant and preemergence application of Dual Magnum. The crop will normally outgrow this effect. (3) Avoid use of Dual Magnum on sorghum grown under dry mulch tillage, or injury may occur.

Restrictions: (1) Preharvest Interval (PHI): Do not apply Dual Magnum postemergence within 75 days of harvest. (2) Except for the split preplant surface treatment, do not make more than one application per year.

GRAIN OR FORAGE SORGHUM (SEED TREATED WITH CONCEP) – DUAL MAGNUM TANK MIXTURES

Dual Magnum preplant or preemergence (prior to sorghum emergence) tank mixtures with AAtrex may be applied in water or fluid fertilizer. Apply Dual Magnum preplant or preemergence tank mixtures only when the sorghum seed has been properly treated with Concep seed treatment. Preplant or preemergence applications of Dual Magnum to sorghum not treated with Concep seed treatment will result in crop death.

IMPORTANT: FOR TANK MIXTURES WITH AATREX (OR OTHER BRANDS OF ATRAZINE) – If applying Dual Magnum in tank mixture with AAtrex, all the restrictions and rate limitations on the AAtrex label must be followed if more restrictive/protective than those on this label. In addition, if AAtrex is/must be applied at rates lower than those listed on this label, broadleaf weed control may be affected. Refer to the AAtrex label for weeds controlled at the reduced rates.

Precautions: (1) Applications of Dual Magnum + AAtrex on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause sorghum injury. (2) If sorghum seed is not properly treated with Concep, preplant and preemergence applications of Dual Magnum + AAtrex may severely injure the crop. (3) Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of preplant and preemergence applications of Dual Magnum + AAtrex. The crop will normally outgrow this effect. (4) Avoid use of Dual Magnum + AAtrex on sorghum grown under dry mulch tillage, or injury may occur.

Restriction: Except for the split preplant surface treatment, do not make more than one application per year.

TANK MIXTURE WITH AATREX

In addition to the weeds controlled by Dual Magnum alone, Dual Magnum + AAtrex also controls the following broadleaf weeds when applied either preplant surface, preplant incorporated, or preemergence: cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

Preplant Surface-Applied: Refer to instructions for use of Dual Magnum under **Application Procedures** on this label. For minimum-tillage or no-tillage systems only, Dual Magnum + AAtrex may be applied up to 45 days prior to planting in IA, IL, eastern KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting, with $\frac{2}{3}$ of the broadcast rate applied initially and the remaining $\frac{1}{3}$ at planting. Apply 1.5 pt/A of Dual Magnum + 1.7-2.0 lb/A of AAtrex Nine-O* on *medium soils* with 1.5% organic matter or greater. Apply 1.5 pt/A of Dual Magnum + 1.7-2.0 lb/A of AAtrex Nine-O on *fine soils* with less than 1.5% organic matter, or apply 1.67 pt/A of Dual Magnum + 2.0-2.2 lb/A of AAtrex Nine-O on *fine soils* with 1.5% organic matter or greater. Treatments less than 30 days prior to planting may be made either as a split or single application. Under dry conditions, irrigation after application may be made to move Dual Magnum + AAtrex into the soil.

Restrictions: (1) Do not use on coarse soils. (2) Do not use on medium soils with less than 1.5% organic matter.

Preplant Incorporated or Preemergence: Refer to instructions for use of Dual Magnum under **Application Procedures** on this label. On *medium soils* with 1.5% organic matter or greater, apply 1.0 pt/A of Dual Magnum + 1.3 lb/A of AAtrex Nine-O*. On *fine soils* with less than 1.5% organic matter, apply 1.0 pt/A of Dual Magnum + 1.3 lb/A of AAtrex Nine-O; on *fine soils* with 1.5% organic matter or greater, apply 1.2-1.33 pt/A of Dual Magnum + 1.6-1.8 lb/A of AAtrex Nine-O.

*When using AAtrex 4L, use equivalent rates. One lb of AAtrex Nine-O = 1.8 pt of AAtrex 4L.

Restrictions: (1) Do not use on coarse soils. (2) Do not use on medium soils with less than 1.5% organic matter. (3) Do not use in NM, OK, or TX, except in northeast OK and the TX Gulf Coast and Blacklands areas. (4) Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

TANK MIXTURE OF DUAL MAGNUM OR DUAL MAGNUM + AATREX WITH GRAMOXONE BRANDS, LANDMASTER BW, TOUCHDOWN BRANDS OR ROUNDUP BRANDS FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where sorghum (seed treated with Concep) is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone brands, Landmaster BW, Touchdown or Roundup may be tank mixed with Dual Magnum or Dual Magnum + AAtrex. See Comment No. 7 following Table 2. The Dual Magnum or Dual Magnum + AAtrex portion of the tank mixture provides preemergence control of the weeds listed on this label under the respective sections.

Refer to the label of each product used in combination and observe the planting details, restrictions, and all other precautions and limitations.

Application: Apply before, during, or after planting, but before sorghum emerges. Add Gramoxone brands, Landmaster BW, Touchdown brands or Roundup brands and apply as directed on the product labels.

Gramoxone Brands: Apply as directed on the product label. This treatment will not control weeds taller than 6 inches.

Landmaster BW: Apply as directed on the product label. See the Landmaster BW label for weeds controlled, listed rates for specific weeds, restrictions and other information concerning use.

Touchdown Brands or Roundup Brands: See the Touchdown brand or Roundup brand label for weeds controlled, listed rates, restrictions and other use directions.

SWEET SORGHUM (SEED TREATED WITH CONCEP)

Apply Dual Magnum preplant surface, preplant incorporated, preemergence or postemergence using the appropriate rate specified below. Apply Dual Magnum only when the sweet sorghum seed has been properly treated with Concep seed treatment. Preplant or preemergence applications of Dual Magnum to sweet sorghum not treated with Concep seed treatment will result in crop death.

Soil-Applied: Dual Magnum may be applied up to 45 days before planting. Use only split applications for treatments made 30-45 days prior to planting, with $\frac{2}{3}$ of the broadcast rate applied initially and the remaining $\frac{1}{3}$ at planting. Treatments less than 30 days prior to planting may be made either as a split or single application. Under dry conditions, irrigation after application may be made to move Dual Magnum into the soil.

Dual Magnum Rates for Soil Applications to Sweet Sorghum

| Soil Type | 30-45 days prior to planting ¹ | <30 days prior to planting | At Planting ² |
|-----------|---|----------------------------|--------------------------|
| Coarse | Not Recommended | 1.33 pt | 1.0 - 1.33 pt |
| Medium | 1.5 pt | 1.5 pt | 1.33 - 1.5 pt |
| Fine | 1.67 pt | 1.67 pt | 1.33 - 1.67 pt |

¹Use only as a split application with $\frac{2}{3}$ of the broadcast rate applied initially and the remaining $\frac{1}{3}$ applied at planting.

²Preplant Incorporated or preemergence

Post-Applied: Dual Magnum may be applied postemergence to sweet sorghum for residual control of grasses and small seeded broadleaf weeds. Postemergence application to sweet sorghum may be made to crop up to 5 inches in height. Dual Magnum will not control emerged weeds. Therefore, emerged weeds must be controlled by cultural or chemical methods. When applied alone, Dual Magnum will be safe to emerged sweet sorghum. Use of adjuvants is prohibited on sweet sorghum.

Dual Magnum Rates for Postemergence Applications to Sweet Sorghum

| Soil Type | Postemergence Rate |
|-----------|--------------------|
| Coarse | 1.0 – 1.33 pt |
| Medium | 1.33 pt |
| Fine | 1.33 pt |

Precautions: (1) If sweet sorghum seed is not properly treated with Concep seed treatment, soil applications of Dual Magnum prior to sorghum emergence will severely injure the crop. (2) Under high soil moisture conditions prior to sweet sorghum emergence, injury may occur following soil applications of Dual Magnum. The crop will normally outgrow this effect. (3) Avoid use of Dual Magnum on sorghum grown under dry mulch tillage, or injury may occur.

Restrictions: (1) Preharvest Interval (PHI): Do not apply Dual Magnum postemergence within 90 days of harvest. (2) Do not make more than one application per season. Dual Magnum may be applied either as a soil applied treatment or a postemergence treatment but not both.

SOYBEANS – DUAL MAGNUM ALONE

Apply Dual Magnum in the fall for spring weed control, in the fall for Italian ryegrass control or in the spring as a preplant surface-applied, preplant incorporated, preemergence, or postemergence application for control or partial control of weeds in Table 1.

The combined total amount of Dual Magnum from all applications in the fall plus the spring must not exceed 2.6 pt/A. The combined total amount of S-metolachlor from all applications to soybeans must not exceed 2.5 lb ai/A.

Follow instructions for use of Dual Magnum alone under the **Application Procedures** section of this label.

Read and follow all restrictions in the **Restrictions For All Dual Magnum Soybean Applications** section below.

Fall Application for Spring Weed Control

- Apply after September 30 in ND, SD, MN, WI, and north of Route 30 in IA.
- Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- Apply after October 31 north of Route 136 in IL.

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling.

In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67-2.0 pt/A of Dual Magnum on *medium-textured* and 2.0 pt/A of Dual Magnum on *fine-textured soils*. A tillage operation may precede the application. When a fall and/or a spring tillage follows application, avoid exceeding an incorporation depth greater than 2-3 inches. Minimize furrow and ridge formation in the tillage operations.

Fall Application for Italian Ryegrass Control

Dual Magnum may be applied for residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*). Apply Dual Magnum at 1.33-1.67 pt/A in the fall (September 1-December 1) after harvest of the previous crop and prior to Italian ryegrass emergence. Use the lower Dual Magnum rate for coarse-textured soils and the higher rate for fine-textured soils. A tillage operation may precede the application. If tillage follows a Dual Magnum application, avoid incorporating to a depth greater than 2-3 inches.

For fall applications after emergence of glyphosate-resistant Italian ryegrass, a Gramoxone brand herbicide can be tank mixed with Dual Magnum to control emerged ryegrass. Refer to the Gramoxone brand herbicide label for specific rates, application instructions and restrictions. Other registered herbicides may be tank mixed with Dual Magnum for control or improved control of other weeds present at the time of application.

Spring Preplant Surface Application

Use on *medium* and *fine soils* with minimum-tillage or no-tillage systems in CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV, and WY. Apply $\frac{2}{3}$ the listed rate of Dual Magnum (1.67 pt/A on *medium soils* and 2.0 pt/A on *fine soils*) as a split treatment 30-45 days prior to planting and the remainder at planting. Applications made less than 30 days before planting may be as either a split or single treatment. Apply 1.33 pt/A of Dual Magnum on *coarse soils* not more than 2 weeks prior to planting.

Dual Magnum may be used up to 2.6 pt/A as a preplant surface treatment on soils having organic matter content between 6% and 20%.

Preplant Incorporated or Preemergence

On *coarse soils*, apply 1.0-1.33 pt/A of Dual Magnum if organic matter content is less than 3%, or 1.33 pt/A if organic matter content is 3% or greater. On *medium soils*, apply 1.33-1.67 pt/A of Dual Magnum. On *fine soils*, apply 1.33-1.67 pt/A of Dual Magnum if organic matter content is less than 3%, or 1.67-2.0 pt/A if organic matter content is 3% or greater.

Dual Magnum may be used up to 2.6 pt/A as a preplant incorporated or preemergence treatment on soils having an organic matter content between 6% and 20%.

Postemergence

Apply 1.0-1.33 pt/A of Dual Magnum as a postemergence treatment to soybeans. Dual Magnum will not control emerged weeds so it must be applied to a weed-free soil surface or in a tank mixture with products that provide postemergence control of weeds present at the time of application.

Dual Magnum can also be applied as part of a sequential soybean weed control program. If Dual Magnum was applied as a preplant surface, preplant incorporated, or a preemergence treatment, a second treatment of Dual Magnum can be applied postemergence provided that the total Dual Magnum rate during any one crop does not exceed 2.6 pt/A.

Restrictions For All Dual Magnum Soybean Applications: (1) Preharvest Interval (PHI): Do not apply within 90 days of harvest. (2) Do not graze or feed treated soybean forage, hay, or straw to livestock for 30 days following a preplant surface, preplant incorporated or preemergence application. (3) Do not graze or feed treated forage or hay from soybeans to livestock following a postemergence application of Dual Magnum. (4) The combined total amount of Dual Magnum from all applications in the fall plus the spring must not exceed 2.6 pt/A per year. (5) The combined total amount of S-metolachlor from all applications to soybeans must not exceed 2.5 lb ai/A per year. (6) Do not apply more than 1.33 pt/A per year of Dual Magnum postemergence to soybeans. (7) Do not apply Dual Magnum to frozen ground.

SOYBEANS – DUAL MAGNUM COMBINATIONS

Dual Magnum may be tank mixed with other herbicides for improved residual control of the weeds listed in Table 1. For Dual Magnum application rates, refer to the **Soybeans – Dual Magnum Alone** section above.

The combined total amount of Dual Magnum from all applications in the fall plus the spring must not exceed 2.6 pt/A. The combined total amount of S-metolachlor from all applications to soybeans must not exceed 2.5 lb ai/A.

The tank mixtures with Dual Magnum identified in Table 11 may be applied to soybeans for improved residual control. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, rotational restrictions and a list of weeds controlled. Follow the most restrictive label.

Table 11. Dual Magnum Tank Mixtures for Application in Soybeans

| Tank-Mix | Application Timing | Comments |
|--|----------------------------------|--|
| Gramoxone Brands Roundup Brands Touchdown Brands | Preplant Surface Preemergence | <ul style="list-style-type: none">• Use this tank mixture for burndown plus residual control in reduced or no-till systems. |
| Authority® MTZ TriCor | Preplant Surface Preemergence | <ul style="list-style-type: none">• Use this tank mixture for additional residual control.• Do not use this tank mix on soil with less than 0.5% organic matter.• Do not use this tank mix on alkaline soil with a pH over 7.4.• If heavy rain occurs soon after application, crop injury may result.• Use of this tank mix is not recommended for soybean varieties known to be metribuzin sensitive. |

continued...

Table 11. Dual Magnum Tank Mixtures for Application in Soybeans (continued)

| Tank-Mix | Application Timing | Comments |
|---|--------------------------------------|---|
| Canopy Authority® First Authority® Maxx Classic® FirstRate® Sharpen® Sonic® Verdict® | Preplant Surface Preemergence | <ul style="list-style-type: none"> • Use this tank mixture for additional residual control. |
| Classic FirstRate Flexstar® Fusilade® DX Fusion® Prefix® Python® Reflex® | Postemergence | <ul style="list-style-type: none"> • Dual Magnum alone will not control emerged weeds. • Use this tank mixture for control of emerged weeds plus residual control of grasses and small seeded broadleaf weeds. • Follow the tank mix product label for adjuvant use instructions. • The use of COC or UAN with Dual Magnum may result in temporary crop injury. |
| Flexstar® GT Roundup Brands Touchdown Brands | Postemergence | <ul style="list-style-type: none"> • Dual Magnum alone will not control emerged weeds. • Use this mixture for residual control. • Use this mixture only on glyphosate tolerant soybeans. • Follow the tank mix product label for adjuvant use instructions. |
| Liberty | Postemergence | <ul style="list-style-type: none"> • Dual Magnum alone will not control emerged weeds. • Use this mixture for residual control. • Use this mixture only on soybeans that are tolerant to glufosinate (e.g. LibertyLink). • Follow the Liberty product label for adjuvant use instructions. • The use of COC or UAN with Dual Magnum may result in temporary crop injury. |

Restrictions For All Dual Magnum Soybean Tank Mixture Applications: (1) Preharvest Interval (PHI): Do not apply within 90 days of harvest. (2) Do not graze or feed treated soybean forage, hay, or straw to livestock for 30 days following a preplant surface, preplant incorporated or preemergence application. (3) Do not graze or feed treated forage or hay from soybeans to livestock following a postemergence application of Dual Magnum. (4) For all tank mixtures, refer to individual product labels for precautionary statements, restrictions, rates, approved uses, rotational restrictions and a list of weeds controlled. Follow the most restrictive label. (5) The combined total amount of Dual Magnum from all applications in the fall plus the spring must not exceed 2.6 pt/A per year. (6) The combined total amount of S-metolachlor from all applications to soybeans must not exceed 2.5 lb ai/A per year. (7) Do not apply more than 1.33 pt/A per year of Dual Magnum postemergence to soybeans. (8) Do not apply Dual Magnum to frozen ground.

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

GROUP 15 HERBICIDE

Dual Magnum® Herbicide

For weed control in corn; cotton; grasses grown for seed; horseradish; peanuts; beans, peas, and lentils; potatoes; pumpkin; rhubarb; sugar beets; sunflowers; safflowers; sweet, grain or forage sorghum; soybean; soybean, immature seed; and tomatoes

| | |
|--------------------------------|--------|
| Active Ingredient: | |
| S-metolachlor | |
| (CAS No. 87392-12-9) | 83.7% |
| Other Ingredients: | 16.3% |
| Total: | 100.0% |

Dual Magnum is formulated as an Emulsifiable Concentrate (EC).

Dual Magnum contains 7.62 lb of active ingredient per gallon.

See directions for use in attached 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. 100-816
EPA Est. 070989-IA-001

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

SCP 816A-L1W 0715
4059017

2.5 gallons
Net Contents

KEEP OUT OF REACH OF CHILDREN.

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with eyes, skin, or clothing. May cause skin sensitization reactions in certain individuals.

FIRST AID

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 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 swallowed: Call 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 by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

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.

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: 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 disposing of equipment wash water or rinsate.

Ground Water Advisory: The active ingredient in Dual Magnum has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Surface Water Advisory: The active ingredient in Dual Magnum has the potential to contaminate surface water through ground spray drift. Under some conditions, the active ingredient may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

Mixing/Loading Instructions: Care must be taken when using this product to prevent back-siphoning

into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check-valves or antisiphoning devices must be used on all mixing and/or irrigation equipment.

This product must not be mixed or loaded within 50 ft of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product must not be mixed/loaded or used within 50 ft of all wells, including abandoned wells, drainage wells, and sink holes*.

*For exceptions to this restriction, see the **Environmental Hazards** section of the **Precautionary Statements** in attached booklet.

Aerial Drift Management Requirements: Do not apply this product by air, unless the supplemental labeling on **Aerial Drift Management** in attached booklet is followed.

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

STORAGE AND DISPOSAL

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

Pesticide Storage: This product may be stored at temperatures down to 30 degrees below 0°F.

Pesticide Disposal: Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

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 by other procedures approved by state and local authorities.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

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