



**STATE OF MAINE
130th LEGISLATURE
SECOND REGULAR SESSION**

RESOLVE, TO STUDY THE IMPACTS OF CONSUMER FIREWORKS USE

Joint Standing Committee on Criminal Justice and Public Safety

December 30, 2022

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During the first session of the 125th Maine Legislature Chapter 416, “An Act to Legalize the Sale, Possession and Use of Fireworks” was passed. The law took effect on January 1, 2012. In 2022, Chapter 135, A Resolve, To Study the Impacts of Consumer Fireworks Use was passed. Per that resolve a stakeholder group was convened. This report represents the findings of that group.

EXECUTIVE SUMMARY

Since use of consumer fireworks were legalized in 2012, the costs of that use have been documented but only in terms of injuries, fires, emergency services response as required under Chapter 416. The impact on animals from the use of consumer fireworks has not been documented for a variety of reasons.

Primarily because it is not required and subsequently there is no system in place to report incidents involving animals. Stakeholders agreed that no reporting system exists in part because of the difficulty it would be to create and maintain such a system. Absent a coordinated effort between law enforcement, veterinarians, citizens, and other concerned parties there will likely be no requirements or system developed to report and document complaints and injuries and other impacts on animals. The development of restrictions or regulations of fireworks would also be made more difficult in instances where the regulated area of one community ends and where another begins. Communities in Maine may regulate use up and until the end of that municipality’s jurisdiction. Finally, to set a requirement and then prove a violation occurred would require measurements involving distance, time, and potentially witnesses and other evidence would be difficult to obtain.

Though stakeholders agreed as to why there is no system to report and subsequently no data on such incidents harming animals in Maine, they also agreed that there had been some research and testimony on the negative impacts fireworks have on animals in Maine and elsewhere. These studies pointed out negative impacts to hearing and stress/fear being the leading impacts of fireworks on animals. The Maine legislature has heard testimony from numerous individuals in Maine regarding the negative impact of fireworks to both animals and the environment in general.¹ Efforts to regulate the use of fireworks have been made in other states outside of Maine as well.

CONSUMER FIREWORKS-RELATED INJURIES AND FIRES

Each year the Fire Marshal’s Office collects data as required by Chapter 416. In 2021 the office collected fireworks related fire and injury data through its National Fire Incident Reporting System (NFIRS), the Maine Emergency Medical Management system (EMS) and Maine’s Forest Service. In 2021 EMS reports indicate that three individuals were transported to medical facilities for treatment of injuries with victims ranging in age from five to fifty. Because the EMS data only provides the count of individuals injured and transported to a hospital for fireworks related injuries, the data is considered baseline data more likely to be an undercount of actual injuries.

There were seven fires reported by Maine’s fire departments in 2021 that were determined to be caused by fireworks. These fires required the attention of an average ten first responders working 573 hours total in addition to an average four units of apparatus per incident in 2021 to put out these fires. A final summary of fire causes was published in the 2021 Annual Report of the Maine State Fire Marshal in the spring of 2022. The fires cost an additional \$70,000 in property and contents loss. This data is documented each year as required in the annual report required under Chapter 416 (see Appendix B)

¹ Chapter 646, “An Act to Protect Water Quality by Requiring Additional Disclosures to Purchasers of Consumer Fireworks Regarding Safe and Proper Use, 8 MRSA§223-A. sub-§10

FIREWORKS AND ANIMALS

High-noise fireworks have a sound level of more than 120 decibels. This is the decibel level limit the UK sets for consumer fireworks. Display fireworks produce a louder sound but are further away. Consumer fireworks which are closer to people have a lower decibel level but sound louder. Literature suggests that fireworks use can damage an animal's hearing and make them experience high levels of stress (see Appendix A). Because animals have acute hearing which means that the considerable noise of fireworks combined with their heightened senses causes them to become distressed and in many cases panic.

Most of the research on the fear fireworks can create in animals has been done on dogs. Dogs have particularly acute senses and are sensitive to the sounds of fireworks and gunshots which is why they fear them. A dog's response to fireworks can include trembling, cowering, hiding, soliciting human attention, increased attention or startled response, loss of appetite and barking. In severe cases vomiting and self-inflicted injury. Without treatment phobias can develop and persist even after the events have occurred. Fireworks have adverse impacts on small animals (rabbits, guinea pigs, rats) as well though there have been few studies done on them. Noise impacts have not been studied on these animals as much as they have on dogs.

Horses are considered highly unpredictable and are also highly reactive to fireworks. Fireworks have been known to **cause** significant stress in horses. The most common fear behaviors they exhibit are escaping, followed by shivering and hiding. In addition, they experience other problems similar to those seen in dogs.

The degree to which consumer fireworks negatively impact animals and how loud they are can vary based on the proximity to the animal as well as weather conditions. However, the negative behavior in animals over time can get worse over time. There are ways to manage and mitigate animal fears to fireworks ranging from pharmaceuticals, better sheltering, psychological treatments, and various approaches to desensitization. These remedies come at cost.

REGULATING FIREWORKS

Since the use and sale of fireworks were legalized in 2012, there has been little change in the basic structure of the law and how it is to be regulated. The most major change of law passed was a 2017 law granting Maine Plantations permission to adopt consumer fireworks regulations.²

In Maine as in most states, commercial (display) and consumer fireworks are regulated in different ways. The biggest difference in the regulatory scheme is that display fireworks require the licensing of those conducting the display and transporting the fireworks in addition to a permitting process for putting on the display. Within that framework are numerous rules focused on containers, distance, and other requirements necessary to put on a large show safely. With consumer fireworks, use and possession is granted to most individuals over the age of eighteen without any requirement any requirements to be trained or licensed to use them. Display fireworks are also much larger and more powerful than consumer fireworks.

Maine's Chapter 416 provides Maine municipalities the option to choose to restrict or prohibit the sale and or use of consumer fireworks and even require a permit for the sale of consumer fireworks in each municipality. Municipalities making their own regulations must provide the FMO (Fire Marshal's Office) with a copy of the ordinance. There were no new ordinances or towns added in 2021 and town ordinances are made available to the public on the FMO website. Sellers of consumer fireworks are required to provide customers a copy of a given towns consumer fireworks ordinance if one exists.

At present there are only two municipalities with ordinances that prohibit only the use of consumer fireworks. An additional fifty prohibit both use and sale in the given community. Sixty-five communities restrict use

² 30-A §7501, Chapter 141

and/or sale in various ways. Such restrictions include limiting the area in which fireworks can be used and at what time. Ordinances focused on area of use generally forbid the use of consumer fireworks in areas zoned residential, public lands, on the street and other areas identifiable by borders or as described within that communities incorporated area. The town of Calais has included in its ordinance a clause referencing animals. The Calais ordinance reads as follows: “The use of Consumer Fireworks outside of the Urban Area shall follow the laws of the State of Maine-except that the use of consumer fireworks in any livestock zone shall be prohibited. The Calais ordinance defines livestock zone as “any area within 1500 feet of a facility where livestock is being raised or boarded”.

In general, legislation in Maine and across the nation varies regarding what types of consumer fireworks are permitted for use. Today, consumer fireworks are legal in forty-six states. Washington, D.C. Ohio, Vermont, and Illinois only allow the purchase of sparklers and other novelty-type fireworks. Massachusetts bans the sale of all consumer fireworks. States vary in terms of the age. Age requirements range from the youngest being sixteen and the oldest being twenty-one and up. Details regarding what type can be used are guided by definitions set forward by organizations such as the National Fire Protection Association, the Consumer Products Safety Commission, and the American Pyrotechnics Association Standards.

In a survey of state laws and regulations, conducted through the National Association of State Fire Marshal’s, little to none referenced animals. Recently however, Pennsylvania did pass legislation addressing consumer fireworks nuisance and specifically protections for animals. The bill was the result of widespread complaints about the irresponsible use of consumer grade fireworks. The bill, Public Law 762, No. 74 which was signed into law in 2022 defines “*an animal housing facility as a roof structure or facility, or portion of the facility, used for the occupation of livestock or poultry*”. The law further stipulates as a condition of use “*No person use.--No person may use consumer fireworks within 150 feet of an animal housing facility or a fenced area designed to confine livestock owned or managed by another person. If a person uses consumer fireworks at a distance of 150 to 300feet from an animal housing facility or fenced area designed to confine livestock owned or managed by another person, the user of consumer fireworks shall notify in writing the owner or manager of the livestock at least 72 hours in advance of the use that consumer fireworks will be used in the area*”. The impact of this legislation is unknown having only been passed this past summer of 2022.

There have been several attempts, some successful at addressing complaints residents of Maine have had regarding the use of consumer firework (see Appendix C). There was a failed effort to legalize consumer fireworks a year prior to the passage of Chapter 416. Since legalization, successful efforts have focused largely on safe disposal, items to include/exclude within the definition of consumer fireworks, adjusting times and location. There have been recurring unsuccessful efforts to address the impact of consumer fireworks on animals.

The bill leading to this resolve would have, in its original form, L.D. 1348 “An Act to Limit the Decibel Level of Fireworks Near Working Farms” would have prohibited the user from discharging “fireworks or consumer fireworks that results in a noise that exceeds 75 decibels at a boundary of a farm actively engaged in agricultural production and containing livestock.” Testimony in support of the bill cited incidents of consumer fireworks causing stress and panic to animals and even costs to first responders responding to animals running loose as a result of consumer fireworks being discharged. Those opposing the bill, primarily from the firework industry, cited the difficulty of enforcing such a bill as well as previous failed attempts to pass such a law. Chief among the difficulties mentioned would be how to measure decibels and distance. They also cited potential unemployment and revenue losses.

Discussion over enforcement difficulties resulted in amendments to the original bill. The amendments recognized the “complexities for enforcing “distances and decibels” and sought to remedy the problem by changing the title. Another amendment, worked out between the sponsor of the bill and the fireworks industry would require an individual using the fireworks “within 250 feet of neighboring property owners’ livestock

pen...to notify the owner...no less than five days in advance..” of that use which would allow owners a chance to prepare. Other potential changes would be to allow only the use of lower noise fireworks within certain distances from animals. It was also mentioned that absent the capacity of local law enforcement to enforce such laws, a state level approach would be necessary.

Faced with such uncertainties the Committee replaced the original bill with a resolve directing the State Fire Marshal to convene a stakeholder group to review matters relating to the impacts of consumer fireworks use and provide the Committee with the findings, recommendations, and any proposed legislation of this review. This report is the result. Testimony provided to the committee during hearings are in Appendix E at the end of this report.

RECOMMENDATIONS

1. Amend Title 8 §227-A, pt.8 Restrictions to read:

8. Restrictions on use of consumer fireworks. The use of consumer fireworks is governed by this subsection.

A. Consumer fireworks may be used between the hours of 9:00 a.m. and 10:00 p.m., except that on the following dates they may be used between the hours of 9:00 a.m. and 12:30 a.m. the following day:

(1) July 4th;

(2) December 31st; and

(3) The weekends immediately before and after July 4th and December 31st. [PL 2011, c. 416, §5 (NEW); PL 2011, c. 416, §9 (AFF).]

B. A person may use consumer fireworks only on that person's property or on the property of a person who has consented to the use of consumer fireworks on that property. [PL 2011, c. 416, §5 (NEW); PL 2011, c. 416, §9 (AFF).]

C. No person may use consumer fireworks within 150 feet of an animal housing facility or a fenced area designed to confine livestock owned or managed by another person. If a person uses consumer fireworks at a distance of 150 to 300 feet from an animal housing facility or fenced area designed to confine livestock owned or managed by another person, the user of consumer fireworks shall notify in writing the owner or manager of the livestock at least 72 hours in advance of the use that consumer fireworks will be used in the area.

(or)

C. A person may use only low noise non-ariel consumer fireworks within 150 feet of an animal housing facility or a fenced area designed to confine livestock owned or managed by another person. Low noise non-ariel fireworks include only:

(1) Fountains and conics

(2) Wheels

(3) Quite cakes and candles

2. Create a report form for law enforcement to report violations of consumer fireworks law, state and local, that includes incidents involving animals. This will document incidents involving animals.

3. Consider the development of designated livestock zones where consumer fireworks cannot be used.

4. Require that decibel levels be posted on the fireworks product package.

Appendix A

Studies/Analysis of the Impact of Fireworks on Animals

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Appendix B

Fires and Injuries Related to the Use of Consumer Fireworks

NFIRS 5.0 National Reporting System: Fireworks 2021

Manpower and Equipment Used to Fight Fireworks Related Fire Incidents

Frequency		Exposures	Average Number							Total Man Hours	Average Response Time (min)
			Personnel			Apparatus			Man Hours		
#	%		Suppression	EMS	Other	Suppression	EMS	Other			
7	0.28%	0	7.43	0.29	2.14	2.71	0.14	0.86	81.89	573.20	4.00

Selected Coded Field: Fire: Heat Source Fireworks

Report Period: From 01/01/2021 to 12/31/2021

Property and Contents Dollar Losses from Fireworks Related Fires

Code	Description	Frequency	Property Loss		Contents Loss		Total Loss	
		#	#	%	#	%	#	%
419	1 or 2 family dwelling	2	45,000	99.8%	25,000	100.0%	70,000	99.9%
669	Forest, timberland, woodland	1	0	0.0%	0	0.0%	0	0.0%
931	Open land or field	2	0	0.0%	0	0.0%	0	0.0%
938	Graded and cared-for plots of land	1	0	0.0%	0	0.0%	0	0.0%
963	Street or road in commercial area	1	100	0.2%	1	0.0%	101	0.1%
Totals		7	45,100	100.0%	25,001	100.0%	70,101	100.0%

EMS Fireworks Injury Reports for 2020

Date	Gender	Age	Injury
July 17, 2021	Female	5	Hit in the back with firework, burned back
August 29, 2021	Male	50	Firework exploded in hand partially severing hand
November 5, 2021	Male	50	Firework exploded in hand removing his thumb, and tips of two fingers

Maine Forest Service Fireworks Fire Reports for 2021

Count by Region and Acres Destroyed

Cause	Southern Region		Central Region		Norther Region		Statewide	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Fireworks	8	0.9	0	0.0	0	0.0	8	0.9

Damages

Natural Resource Property Damage (damage to wildlands)	Reap Property Damage (homes, sheds, automobiles)	Total Cost of Extinguishing Fires
\$400.00	0	\$4,056.92

Appendix C

Legislative efforts regarding consumer fireworks

Legislature	Chapter Number (0 = bill failed)	Title
112	0	AN ACT CONCERNING THE POSSESSION OF FIREWORKS
112	23	AN ACT CLARIFYING THE LAWS RELATING TO FIREWORKS
112	0	AN ACT RELATING TO FIREWORKS
117	528	An Act to Enhance Fireworks Safety
118	0	An Act to Impose License Suspension and Other Sanctions on Those Who Fail to Pay Fines and Other Penalties
119	671	An Act to Promote the Safe Conduct of Fireworks Displays in the State of Maine
121	521	An Act To Amend the Laws Governing the Display of Fireworks and Indoor Pyrotechnics
122	406	An Act To Prohibit the Disposal of Dangerous and Unsafe Material in Solid Waste Facilities
123	81	An Act To Effect the Seizure and Disposal of Contraband Fireworks
124	0	An Act To Allow the Sale and Use of Consumer Fireworks
125	416	An Act To Legalize the Sale, Possession and Use of Fireworks
125	202	An Act To Modify the Regulation of Fireworks
126	0	An Act To Restrict the Sale, Purchase and Use of Fireworks in the State
126	0	An Act To Establish Reasonable Restrictions on the Use of Fireworks
126	0	An Act To Protect Farm Animals from Noise from the Discharge of Fireworks or Explosives
126	0	An Act To Require a Local Permit for the Use of Fireworks
126	0	An Act To Change the Time Restriction on the Use of Fireworks
126	56	An Act To Amend the Laws Governing the Licensing of Technicians Involved in a Display of Fireworks or Special Effects
127	0	An Act To Protect Private Property and Livestock from Fireworks
127	352	An Act To Establish the Maine Length of Service Award Program
127	0	An Act To Protect Farm Animals from Noise from the Discharge of Fireworks and Explosives
127	0	An Act To Encourage Responsible Consumer Fireworks Use
127	0	An Act To Control Fireworks in Monhegan Island Plantation
127	0	An Act To Protect the Environment from Fireworks Debris
128	3	An Act To Grant Plantations the Power To Control Consumer Fireworks
128	0	An Act To Improve Safety in the Disposal of Expired Marine Flares
129	0	An Act To Establish and Promote a System of Safe Disposal of Expired Marine Flares
129	249	An Act To Amend Maine Fireworks Laws To Include Flame Effects
129	646	An Act To Protect Water Quality by Requiring Additional Disclosures to Purchasers of Consumer Fireworks Regarding Safe and Proper Use
130	96	Resolve, Regarding the Storage of Consumer Fireworks
130	422	An Act To Establish and Promote a System of Safe Disposal of Expired Marine Flares

130	510	An Act Regarding the Sale and Use of Consumer Fireworks
130	135	Resolve, To Study the Impacts of Consumer Fireworks Use

Appendix D

Minutes and Members Participating in the Stakeholder Group Meeting

Minutes from the Stakeholder Group established pursuant to a *Resolve, To Study the Impacts of Consumer Fireworks Use*, Chapter 135, approved March 29, 2022.

The Stakeholder group convened at 10:00 AM on Friday October 21st.

In attendance:

Rachael Fiske, State Veterinarian, Maine Department of Agriculture, Conservation and Forestry

Vicki Schmidt, Maine State Federation of Fire Fighters

Robby Gross, Chief Forest Ranger, Maine Department of Agriculture, Conservation and Forestry

Julie Ann Smith, Maine Farm Bureau

Dan Peart, Phantom Fireworks

Matthew Randall, Inspector Supervisor, Maine Department of Agriculture, Conservation and Forestry

Joseph E. Thomas, Maine State Fire Marshal

Fire Marshal Thomas asked: What are the impacts of consumer fireworks use in general and on livestock?

Rachael Fiske, State Veterinarian, stated that she was aware and had heard of animal owners complaining of fireworks upsetting their animals but that most of the detail was anecdotal. She went on to say that it's difficult to quantify and really no process is in place to address this specific issue and that there have been studies in Europe focused on the negative impact of fireworks on animals.

Julie Ann Smith of the Maine Farm Bureau stated that farmers are dealing with the problem internally. They're dealing with fences being torn down and production from cows being diminished due to fireworks. She said dogs are also quite distressed.

Robby Gross, Chief Forest Ranger for Maine said there was very little documentation on the impact fireworks are having on animals.

Matt Randall, Maine Department of Agriculture, Conservation and Forestry stated that calls related to fireworks had declined and the focus has now shifted to the towns. He went on to state that he believes an educational approach would be the best solution and that to study the issue carefully would require funding.

The group believes there are costs associated with negative impacts on animals of consumer fireworks. The group also concurred that local and county are usually the officials responding to the issue as opposed to state level officials. There was also consensus in that an examination of the nature and characteristics of local ordinances might help.

Dan Peart of Phantom Fireworks drew the groups attention to a law recently passed in Pennsylvania prohibiting the use of fireworks within 150 feet of animal housing facility and that those using fireworks must notify in writing the owners of such facilities at least 72 hours in advance. He went on to state that enforcing laws of this nature is difficult.

Vicki Schmidt of the Maine State Federation of Fire Fighters and horse owner stated that fireworks are a problem for animals. The fireworks distress them in numerous ways. She added that she has information on the problem that she would share a later time.

The Stakeholder group adjourned at approximately 11:00 AM.

The Maine Fire Marshal's Office is examining the Pennsylvania law and an ordinance the City of Calais has passed that addresses the issue of the negative impact of fireworks on animals. The ordinance prohibits the use of consumer fireworks in any livestock zone which is defined in the ordinance as being any area within 1,500 feet of a facility where livestock is being raised or boarded.

The Maine State Fire Marshal's Office has received several complaints via e-mail from Maine citizens stating that, among other things that:

"I had (had ?) never in my life experienced fireworks in the proximity or at the scale as I have living here...I assumed that fireworks [would be used during the] 4th of July and maybe there other major holidays.. I could not have been more wrong."

"My livestock is frantic with the noise and it is difficult to settle them down... especially when the display is within 500 feet of our barn....."

"While it is a privilege to own such animals, for a lot of us it is our livelihood, a way people make a living and these animals are literally everything to us. The danger of our barns catching on fire with our animals and hay in it is terrifying, all for people to set off these fireworks with no rules, regulations or care for others around them."

"My horses are very sane for the most part. Two are retired race horses who have heard fireworks many times. However, Having them fired off right next to my property is insane! They don't eat, they run around and can't settle for hours."

"Help our horses please, however you can. Prevent risk of fires at farms, and prevent fear and harm to these magnificent, sensitive flight animals, our horses. Animals deserve to be safe, be free from fear, and to be secure."

Appendix E

Testimony Chapter 135, A Resolve, To Study the Impacts of Consumer Fireworks Use

From: Michelle Edward

Sent: Tuesday, October 25, 2022 10:26 AM

Subject: FIREWORKS & LIVESTOCK IN MAINE

Richard McCarthy,

I own a horse farm at 98 Shiloh Road in Durham, Maine. I start horses under saddle (get them used to saddling, and give them their first rides), teach lessons, and board horses. At any one time, there are between 8 and 20 horses on my ten acre farm. The horses live outside primarily with free-choice access to shelter. I have multiple elderly riders, beginner riders and children who ride on my property weekly. At times, Pony Club has held events here.

I have NEVER in my life experienced fireworks in the proximity or at the scale as I have living here, over the past two+ years. I assumed that fireworks were a terrible nuisance I'd have to deal with on the 4th of July and maybe three other major holidays each year (New Years, Memorial Day, Labor Day). I could not have been more wrong.

We've experienced close fireworks 28 times in the past two years. I live in area where a couple of people own large 10-30 acre lots. Most own 1 - 5 acre lots, and seem to think that is plenty of land to do whatever the heck they want with total disregard to others. The neighbor who sets off fireworks in closest proximity does so about 350 feet from my horse's paddock. Others are approximately 900 feet away. Anything within 1800 feet, it seems, has the ability to cause a serious problem. Fireworks on the larger/louder end, even when further away, can be problematic, especially when unexpected.

I've never received a heads up from my neighbors about fireworks. My farm is extremely easy to see from the road. It is apparent that there are horses here, horses outside (with shelter) all night long, and that this is the location of a business. Twice, I've been riding while fireworks went off. Once was at 3:30 in the afternoon – moments after a woman with her 3-year old child had been here riding. The other was at 4:00 in the afternoon. Once, fireworks went off moments after I was bandaging a horse's leg – which meant I was bent over, under the horse, partially supporting its weight. Once I was leading a horse out to the paddock, and had my foot stomped on – when the horse jumped straight up and down in surprise.

As you can imagine, since I NEVER know when these things might happen, I don't have much in the way of "video evidence". I do have one video, May 22 of 2021, which shows multiple of my horses, furthest from the fireworks, running and in distress due to the neighbor's fireworks. This was after I'd had my foot stepped on when leading the horse out to the paddock. The horses are confused about where the sound is coming from or what to do, as the fireworks were so close that they felt as though they were going off straight overhead.

I worry every single night of the year from April 1st to September 31st – that a horse will be injured, that a horse will get loose and get hit by a car, that a rider will get killed, etc. I am currently in the process of deciding if I'm going to invest in my property and business, but am not feeling certain that I can stay here, or quite honestly, anywhere in Maine. The towns with fireworks ordinances are sadly largely out of my budget. It is a shame that fireworks were made legal a decade ago, as they are rapidly ruining our rural way of life. I've sent multiple horses home from training early – a loss of business) because I've not felt comfortable having them here for the month of July.

Video of distressed horses.

<https://youtu.be/BZY8PJeej9I>

Times and dates of documented CLOSE fireworks (estimated to be within 1800 feet) below. The majority were 350 feet and 800 feet away. See map.

2021

Saturday, May 22 - dusk

Thursday, May 27 – dusk

Friday, May 28 – dusk

Thursday, July 1 – before dusk

Friday, July 2 – dusk

Saturday, July 3 – dusk

Sunday, July 4 – 3:30 – 11:00 PM

Monday, July 5 – before dusk

Wednesday, July 7 – dusk

Saturday, July 10 – after dark

Monday, July 12 – dusk

July 17 – 9:30 PM

July 30 – 9:45 PM

August 21 – 8:00 PM

2022

May 30 – dusk

May 31 – dusk

June 30 – 8:30 PM

June 31 – 9:00 PM

July 2 – 6:30 – 9 PM

July 3 – 7:00 – 9:30 PM

July 4 6:30 – 10:30 PM

July 9 – 9:00 – 9:50 PM

July 13 – 9:50 – 10:25 PM

July 23 – 8:45 PM

August 4 – 8:40 PM

September 4 – 9:30 PM

September 5 – 3:50 – 4:30 PM

September 17 – 7:10 PM

- Michelle Edwards

Michelle Edwards Horsemanship

98 Shiloh Road, Durham, ME 04222

2027-272-7052

From: Mikaela Kaake

Sent: Monday, October 24, 2022 4:59 PM

Subject: Fireworks & Livestock in Maine

A friend of mine has recommended that people with livestock and experiencing fireworks as an issue to Maine residents, reach out to you both with our personal experiences.

At this time, I do not have videos as the experiences I have had are with troublesome people in my area who flee if they think you are going out to confront them. Which is good and bad because they had made frequent visits, setting off many fireworks throughout the summer but unable to catch them in the act.

My husband and I live on busy route 9 on the North Yarmouth / Pownal town line. Our property abuts the Pine Grove Cemetery where it has been said that it is a yearly "tradition" for groups of people to set off many fireworks in the cemetery throughout the summer; 4th of July is probably their most chaotic event there. We built our home within the last year, and have experienced these neighborhood rumors regularly throughout the summer. My

livestock is frantic with the noise and it is difficult to settle them down when a display is set off, especially within 500 feet of our barn/property. The town office does not seem to have a remedy for this issue, even with the town ordinance declaring that fireworks may not be used in our town.

My husband and I have filed a complaint regarding these incidents (I don't have the police report, but I can ask for it if necessary). Living off of busy Route 9 means that the public and my livestock are at risk for injury or death should the consumer sale of fireworks continue.

I do not have an issue with towns being able to set off fireworks, as most towns are kind enough to send out notifications for the exact date and time so that we can prepare for the noise. But I do have an issue with the general public having the ability to purchase fireworks because most people are careless with themselves and their surroundings when it comes to safety and respect for those around them.

I appreciate your time and hope this information was valuable.

If you have any questions, please let me know.

Thank you,

Mikaela Willard

From: Taylor Moody

Sent: Tuesday, October 25, 2022 8:55 AM

Subject: Fireworks and Livestock

To whom it may concern,

First I would like to thank you for taking this matter into consideration. As a resident and horse owner living in Maine for the last 25+ years, I can assure you I have had my fair share of experience in the matter.

I have boarded at farms in Arundel, Lyman, Saco, and Kennebunk over the years and not one town is better about fireworks than the other. I have seen horses break through fences to escape the flashing lights, get hung up in their stalls from kicking walls trying to fight for what they think is their life and literally make themselves so panicked that they get sick and are often hospitalized. I have gone out to fields the day after and found burnt patches of grass with debris from fireworks all around. The barn I was at for a few years in Lyman would have ash floating into the fields, onto the barn, into horses hay, their water supply. I have even had panicked deer take out our fences trying to escape the sounds of gunshots and fire in the air.

Horses and donkeys, among other types of livestock, are flight animals, meaning they will do anything to get away if they think they are in danger. Unfortunately, this is never limited to a specific time or day, and often out of the blue we will have people in the surrounding area setting numerous fireworks off for hours. The day after Fourth of July is a particularly sad day, when social media is flooded with injured, sick or missing livestock. While it is a privilege to own such animals, for a lot of us it is our livelihood, a way people make a living and these animals are literally everything to us. The danger of our barns catching on fire with our animals and hay in it is terrifying, all for people to set off these fireworks with no rules, regulations or care for others around them.

Again, thank you for taking the time to seriously look into this matter. Everytime I hear fireworks we are faced with unwavering anxiety that our horses are going to get injured or worse, and it would be a huge relief to have one less thing to worry about.

Sincerely,

Taylor Moody

From: Kortney Cole

Subject: Fireworks and livestock

Hi, I am writing in on my personal experiences with my horses and fireworks.

I live on 5 acres in Lebanon. My road is a private road with many houses on it. I own 3 horses aging from 7-24 years old. My horses have 24/7 paddock and barn availability. There are at least 3 other larger farms on my road with horses and a couple with other livestock.

I have two neighbors who like to set off fire works near my house. One house sets them off approximately 300 feet from my horses paddock and barn. Unfortunately this is never a known time as they do it all summer long on

random nights during the week, some day time hours included. These fireworks have gone off all hours of the night.

The second neighbor shoots off directly over my barn.

My horses are very sane for the most part. Two are retired race horses who have heard fireworks many times. However, Having them fired off right next to my property is insane! They don't eat, they run around and can't settle

for hours. Thankfully nothing bad has happened yet as my horses are extremely respectful of my fencing, but I'm waiting for it. One horse is very old, the stress they go through is not fair to me as their owners and not to them in their 'safe place'.

I believe there should be a requirement as to the distance one can shoot fireworks off near livestock and horses. With the laws how it is now it is impossible for equine owners to plan for the safety of their horses.

Thank you for your time.

Kortney Bataran

From: Jane Crockett

Sent: Tuesday, October 25, 2022 7:53 PM

...thank you for hearing about experiences in order to understand the impact and to better be able to find workable solutions. I had bad experiences with fireworks and my horse in two different professionally run horse boarding, training and riding stables.

Any attempted discussions with the neighbors at the time by the owners and or trainers were not effective in any manner. The owners and trainers appealing for help then contacted officials in the towns, South Thomaston and Durham Maine. The result was that there were no ordinances against individuals who used fireworks close to farms. The Fire Marshalls office could be contacted for fire risk.

There were ongoing impacts to my horse and others not only on the 4th of July but there were generally fireworks set off on Memorial Day, Labor Day, New Years Day, and during days of town celebrations and then other times for reasons I am not aware of. Several days long festivities resulted in more than just one defined night of fireworks. My understanding is that these neighbors have since sold their properties to others so I am not aware of the current status of fireworks there at the current time.

At Pepper Hill Farm in South Thomaston in 2015 and 2016 a neighbors property was within about 100 to 150 feet of the barn of about 15 indoor stalls and about 4 outside stalls with paddocks. The indoor lighted riding ring was attached to the barn. Outside, people did not usually ride in the dark. In between the barn and neighbors at Pepper Hill was a rough grass field and a few bushes. The neighbor chose to set off fireworks between and over the barn and his property. Debris from the fireworks landed on the roof of the barn, in the small dirt areas adjacent to the barn, and in the grass. A couple days hay supply was stored in an entry with a garage door type access, facing neighbors, and was generally open for ventilation.

The fire danger was real. These fireworks were literally overhead.

What was worse was the suffering of the horses.

Horses are flight animals, highly in tune to their environments, and survived from the age of eohippus to modern day by heightened senses of sound and reading cues in their environment to react and flee from the perceived source of harm. Sounds like explosions cause most to try and flee. It is a physical response they cannot control. If they are confined they attempt to get out of their confined space by running in their stalls or in place or commonly around and around from one wall or corner into the next. If they have a half door they may try to climb out. If not they might climb walls, rear, kick at perceived harm, run into feeders, buckets in stalls, some kick high and risk getting a hoof stuck in between bars that they have bent while kicking out. Others tremble and sweat, pace. In between fireworks they are on high alert and each time some are set off they repeat the attempts to flee.

My dear horse was highly reactive. The entire night of experiencing the first blasts and trembling and pacing in between, indeed weaving strongly, not knowing what or when more "danger" would arrive. They didn't eat during these times. Unfortunately, the fireworks at both barns she was in, lasted 30 to 40 minutes. Then even more distant fireworks caused reactions in her stressed states.

I involved the barn owners and trainers to try and help. I involved my vet. She said not to let her in a larger space where she could run as she could run into walls or through fences and be injured or get loose. The vet had treated a horse with severe injury in those circumstances. Richard, you must also be aware of a horse in Freeport or Yarmouth who broke through a fence and ran, got stuck in a marshy area and died from exposure, exhaustion, and organ failure from being stuck in the mud overnight. This was publicized. It occurred because of extreme fear during fireworks.

My approach to help my horse be safe upon advice of the vet, was to keep her confined, and premedicate her to help reduce anxiety. It wasn't a sedative, just an anti-anxiety med that must be given ahead of the stimulus or it would not help. I also put earplugs in her ears. She also feels vibrations through her feet so could be upset that way as well. The nights I tried these steps there were no fireworks. It was unpredictable timing. I did not help her but I tried. I stayed with her but it was dangerous to be too close due to her fear and reactions.

I left and went to Safe Haven Farm in Durham, owned then by Emily and Michael Carpenter with "Carriages of Acadia" Now it is owned by Michele Testa Edwards and Dave Edwards and is The Pony Patch. At that farm the neighbors at the time, two properties down I believe, approx 400 to 500 feet away, set off fireworks on holiday and other occasions as previously mentioned. Not only did my horse continue to react along with about half the horses in the 16 stall barn at the time, he but horses living in outside paddocks, shelters on that end of the barn ran and ran and ran. A couple of them were older horses, Charis, about 25, and even Emma, a 33 yo. horse who rarely ran ever. The young stallion Elkan ran frantically, as did several of the middle aged. horses.

After the Edwards owned the farm, Michelle would bring all the horses that lived outside in paddocks and shelters in before dark. I believe there were about 11 that came into stalls for safety. Again, the nights of fireworks were hard to predict as many times fireworks would be shot off in Durham by neighbors on days preceding or after a holiday or event, such as Moxie Days or private celebrations.

Although no horses received serious injuries at either place when I was there, my horse suffered chronic ulcers causing stomach pain and chronic colic episodes for a period of time. Meds to treat ulcers in horses cost \$25 -30 a day for paste then, and for pills, my horse took 13 tablets I think it was, of Ranitidine, twice daily for prevention, once ulcers were healed. I gave up money I needed to live on to help her.

My horse Glory was a saddlebred, one of the breeds, among others, that are considered hot blooded, and she was especially reactive, having been a rescue from untenable circumstances. Horses with more normal backgrounds reacted as well, as mentioned.

The toll on my horse Glory, was high. It was also high on owners of horses including myself. I used to consider the 4th my favorite holiday. It became the worst, in fact most holidays were no longer something to look forward to. I dreaded them due to the suffering of these dear horses and lack of control over the situation. I had no control over the horses powerful reactions to the unending fear. Terror is a better term to describe the state some of these horses were in. My horse was in that category.

My horse unfortunately developed an untreatable condition that was not possible to surgically or medically correct. I chose to put her down "on a good day" to prevent pain and to avoid her feeling a frightening crisis. She was euthanized July 22, 2021.

My reflection about her is that she was pampered after her life of suffering before being rescued. I provided food, stability, love, and spoiled her the best I could. I didn't really enjoy the 4th as much as I thought I could have as I continue to think of other horses still trembling or trying to escape from what their instinct tells them is harm. They evolved to flee and some do hurt themselves, or as with

the horse in Freeport or Yarmouth, die trying.

Thank you so much Richard, as you work through all the information and issues.

Help our horses please, however you can. Prevent risk of fires at farms, and prevent fear and harm to these magnificent, sensitive flight animals, our horses. Animals deserve to be safe, be free from fear, and to be secure.

Respectfully,

Jane Crockett

207 542 1578.

Now living in Rockland ME 04841.

10 May 2021

To: Criminal Justice and Public Safety Committee

Re: LD 1307 An Act to Restrict the Sale, Purchase and Use of Fireworks in the State

LD 1348 An Act to Limit the Decibel Level of Fireworks Near Working Farms

My name is Steven Marson, and I am the owner of Martin & Ware, Inc, the parent company of Central Maine Pyrotechnics and Pyro City Maine. My businesses employ 20 full-time people, 50 licensed fireworks technicians and dozens of people who assist them on their shows.

I am writing as part of my oral testimony from 7 May 2021 opposing LD 1307 and 1348. Having 50 years' experience with commercial display fireworks and operating multiple consumer firework stores since the prohibition was ended in 2012, decibel level regulations have been something that is often discussed. While serving on committees with both the American Pyrotechnic Association and National Fireworks Association this topic has been a concern. There have been limits to the efficacy of testing or standardizing decibel levels produced by consumer fireworks and every situation is different in the field. The environment, both physical and weather conditions have great impact of perceived decibel levels and measuring these levels consistently is difficult.

The decibel level requirements being at 75 or below when discharging fireworks on an abutting property to a farm are difficult if not unattainable. Where is the sound measurement to be taken from? Who's going to bring the equipment? Even our fountains emit noise greater than 75 dBA with crackles and whistles. European consumer fireworks are capped at 120 DBA; a 2020 study on European fireworks noise levels and impacts indicates. I will have a link to that study at the end of this document. It should be known that European and American consumer fireworks are different. The maximum allowable powder weights in American fireworks are actually less than what Europe allows. Another point of interest is that Central Maine Pyrotechnics performs fireworks displays at over a dozen agricultural fairs across the state; 90% of them have racehorses or livestock present. Consumer fireworks users need to be good neighbors and my employees do their part in trying to ensure the customers are doing just that. We can and will provide information in our stores to advocate to be a good neighbor, specifically relating to use around farms.

As for LD 1307 and reinstating a prohibition on consumer fireworks, I'm sure you can determine where I stand. Google indicates there are 15 active consumer fireworks stores across the state, Pyro City Maine operates 5 of them. Since 2012, my business has paid the state approximately \$924,000 in sales tax and \$121,000 in permit fees to the State Fire Marshal's Office for the retail locations alone. Our display company has paid \$594,000 in Use Tax for this same period of time. Obviously, there is more revenue generated through personal income tax of my employees and for the business. As a rule, I try to source my service and support functions from Maine companies as well; there are dozens of businesses that I rely on to keep mine running smoothly. I'm the largest client for my inventory and point-of-sale software company, they might not be Google and I'm not Amazon, but the relationship is beneficial to both parties. Everyone loses out with enactment of consumer fireworks prohibition.

My employees all receive medical benefits to include dental and eye care, 401k plans with 6% matching contributions, vacation and personal time, and a work environment that is generally great.

With the revocation of the 2012 law, all of my employees will be laid off and my stores closed. Good paying jobs, millions of dollars in infrastructure and an enjoyable business venture all erased as a product of LD 1307. For what? Tourists will still come to Maine with their fireworks from out of state, they'll still shoot them off at their camps or summer properties and the police/fire departments will be out chasing their tails trying to get from point A to point B before the show is over; just like what happened prior to consumer fireworks being permissible.

At last tally, there are 51 municipalities that prohibit the use and/or sale of consumer fireworks. The sponsor of this bill indicates that municipalities are incapable of enforcing their own ordinances and that these ordinances vary from place to place. She has also called this "patchwork" of ordinances confusing to consumers, why should different places have different ordinances? That was the whole point of the fireworks law from 2012; the state empowered the towns, cities, and plantations to enact what they felt was prudent.

My company, my employees, and the thousands of customers we provide a product for are all vested stakeholders in this debate. We do our best when informing customers of safe use, respecting neighbors and being a good custodian of the environment. We are all relying on each other to keep this hobby from being legislated out of existence again. In a typical year, we would provide dozens of displays to organizations in the form of donations or for very little fee through the use of consumer fireworks.

When permissible at the local level, I elect to forego a State Fire Marshal's Permit to use consumer fireworks in order to keep costs down for the sponsors or myself when donating a show. Over the last nine years we've done hundreds of shows like this to the benefit of everyone; graduations, state championship celebrations, tree lightings, Christmas parades. We have provided demonstrations for new channels to illustrate the safe use of fireworks, how to properly dispose of them afterwards, fire hazards before, during and after a show.

In closing, I urge the committee to vote no on both of these proposed bills (LD 1307 and 13478) as it will cause the loss of good paying jobs with benefits, tax revenue and business will be forced to close their doors. By repealing the consumer fireworks law, the state will revert back to times when people illegally imported fireworks from out of state and enforcement costs will be shifted to different, equally time-consuming avenues. All the while, the state losses revenue in the process.

Respectfully Submitted,

Steven Marson , CEO

Martin & Ware Inc.

DBA/ Central Maine Pyrotechnics

Pyro City Maine Consumer Fireworks Stores

Office for Product Safety and Standards – Fireworks: Noise levels and impacts on health and the environment. (UK)

Danial Peart

Phantom Fireworks

I will speak briefly on the federal governments failed attempts to regulate consumer fireworks by noise level.

Michael Quinn

Thank you for taking the time to read my comments. I live in Burlington, Maine. This bill should not become law. It's a solution looking for a problem, looking for a reason to make law abiding citizens into criminals.

I am a US Army veteran with PTSD from combat. Fireworks ruin my day. Yet you don't see me asking to curtail peoples freedoms for my own comfort and sanity.

It's generally predictable when fireworks are going to be set off. It should be the responsibility of the livestock owner to put up the livestock (you know take care of it). These farm owners are attempting to foist their responsibilities to care for their animals onto their neighbors through this legislation.

May 7, 2021

My name is Curtis Picard and I am the President and CEO of the Retail Association of Maine. I am a resident of Topsham. We have more than 350 members statewide and represent retailers of all sizes including some of the fireworks retailers. Maine's retailers employ more than 85,000 Mainers. I am here today to testify in opposition to both LD 1307 and LD 1348.

Since 2011, fireworks became legal to sell in Maine. There was a long stakeholder process that helped set the regulation around their sale and the retailers who sell these products have done an excellent job complying with those regulations, and educating consumers on their use. Simply LD 1307 would close businesses, and put people out of work. On the heels of the most difficult 14+ months, we should be supporting our businesses and getting people back to work, not shutting them down. I understand some people do not like these products, but the focus would be better served on regulating when and where people can use them.

For LD 1348, I have no idea how anyone can accurately measure the decibel level of a firework near a livestock farm. How would this proposal be enforced? Municipalities already have the authority to better regulate the use of fireworks and those communities that have a large number of farms or livestock already have the ability to restrict their use.

Thank you for the opportunity to share our thoughts with you.

Sincerely,

Curtis Picard, CAE, President and CEO

Lorelei Cimeno

I would like to urge support for this bill. I am a farmer at Rainbow Farm in Stockton Springs. We are a diversified farm, with a large portion of our production being devoted to livestock. There is a lot of fireworks in our area during the summer. I understand that people want to have fun and enjoy the summer. It is very distressing to our animals though. Our livestock guarding dog is especially affected by the loud noise. His predecessor would often get so scared that she would break out of her fenced in area, which was dangerous to herself and the public. It is also very scary for our cattle and hogs. If the fireworks weren't so loud that would help our livestock feel safe, and they would appreciate it very much.

Lynn Baker

Arundel

I am writing to you our Representatives and Senators to encourage you all to PLEASE, PLEASE support bill LD 1348.

We own Shire Draft horses and for several years now have had constant problems with our next-door neighbors whom are insistent upon shooting off fireworks and guns within 100 yards of our horses.

Terrifying them, sending them into sheer panic, they have broken through their fencing, and gotten loose, they have been and are being driven into a saturating sweat, these horses weigh over 1700 pounds and when they are in a panic it is dangerous, not only for them but for us and everyone else. Even in the barn in their stalls they are panicked and getting them into the barn is dangerous, we can be and have almost been trampled a number of times because of the neighbors shooting off fireworks and guns so close to our horses paddock and barn.

If they get loose and get out into the street or road and traffic, and someone doesn't see them, (they are black) and gets hit, causes an accident, someone gets injured or killed. God forbid.

Where does the liability lay? On the person who was ultimately responsible for the horses being in the road in the first place because they were frightened by the fireworks and in a panic?

The answer to that question is NO, it is going to be on us the owners of the animal. We not only will have lost a valuable animal, but we could also lose our home, everything we own. We have complained many times to law enforcement, they have done nothing. The issue continues. We would like to see it be illegal to possess fireworks of any kind period. More so that it be illegal to be within 10 miles of any livestock, horses, cattle, sheep, goats, etc. Livestock of any kind.

Testimony of Senator Scott Cyrway

**Presenting L.D. 1348, An Act to Limit the Decibel Level of Fireworks Near Working Farms
Before the Joint Standing Committee on Criminal Justice and Public Safety**

May 7, 2021

Good morning Senator Deschambault, Representative Warren and members of the Joint Standing Committee on Criminal Justice and Public Safety: I am State Senator Scott Cyrway and I represent District 16, which includes Albion, Benton, Clinton, Fairfield, Unity Township, Waterville and Winslow. I am before you today to present testimony on L.D. 1348, An Act to Limit the Decibel Level of Fireworks Near Working Farms.

As someone who comes from an agricultural background, I am well-aware of how high strung horses and other livestock animals can become at loud noises and quick movements so when the Maine Farm Bureau asked me to submit legislation minimizing the use of fireworks around livestock, I was happy to do so. I should mention, however, that since submitting this legislation it has become clear that tracking decibel levels and monitoring sound, which can travel great distance, is not easily conducted.

I have had a handful of conversations with those in the agricultural community and the firework industry over the last couple of weeks and based on those conversations, I am bringing forward an amendment to L.D. 1348, which was proposed by those in the firework industry. The amendment would require an individual that is using consumer fireworks, within 250' of a neighboring property owner's livestock pen or containment area, to notify the owner or manager of the livestock no less than five days in advance so precautions can be put in place to ensure the safety and well-being of the animals. In order to keep fireworks legal, while still respecting our farm communities around the state, I feel this is a good starting point and an attempt at addressing a real problem.

You will hear from others who would like to see that only "low-noise" fireworks be permitted outside of Urban Compact Zones, such as cities, when municipal ordinances are not in place. I am for the change to low-noise fireworks and believe this would help protect our livestock, but it has been brought to my attention, as you will hear from others, that there are very few low-noise fireworks available on the market. Additionally, enforcing municipal ordinances is difficult since we no longer have constables to rely on; we now rely on Fire Marshalls and law enforcement to deal with complaints, which is why addressing this on the state level makes the most sense.

With that, I would ask that you carefully consider the proposal before you. This is a complex matter and any step we can take to protect the well-being of animals engaged in agricultural production and livestock will be a step in the right direction. Again, I feel this will help to reduce possible injury to animals and their handlers, while keeping fireworks legal for those who wish to use them carefully and respectfully.

I thank you for your time and I am happy to work with the committee to come up with something to get the ball rolling if the amendment before you is not enough.

**Testimony of Vicki Schmidt, Hebron ME in support of LD 1348,
An Act To Limit the Decibel Level of Fireworks Near Working Farms**

May 7th, 2021

Thank you for today's opportunity, I am Vicki Schmidt from Hebron Maine and I am a State Fire Instructor III with the Maine Fire Services Institute, I am also member of the Buckfield Fire Department, and serve on the Maine Fire Protection Services Commission for Volunteer and On-Call Firefighters on behalf of the Maine Federation of Firefighters. Additionally, I own Troika Drafts, a 150 acre working draft horse farm in Hebron. The things I know best are horses, agriculture, fire, and emergency services.

As a State Fire Instructor one of the customized programs I instruct is Large Animal Emergency Rescue (LAER). My courses are designed for farm owners, firefighters, and other emergency responders. Fireworks are not only a major cause of large animal emergency rescue incidents; the resulting stress to the animal often results in their death. In addition, while the stress of fireworks to livestock may not always escalate to an emergency incident level, there is ample evidence it does result in the loss and injury of young stock due to trampling, and reduced milk production, especially in dairy cattle.*

Since fireworks became legal in 2012 I have been involved in many LAER incidents caused by fireworks. Most notably, in the early morning hours of July 8th, 2020. Livestock, horses included, are "flight" animals. In a panic situation it is nearly impossible to contain them. Due to the complexity of this entrapment incident, local first responders spent nearly five hours working to free the horse. During these hours alternative crews and apparatus were depended on to serve the towns routine calls. This incident cost the local taxpayers \$3500 in response, not including what was donated by volunteers helping at the scene. While fireworks are considered "entertainment", no form of entertainment should cause this degree of pressure on public resources, nor should it routinely cost neighborhood livestock owners loss and stress to their livelihood.

The fireworks industry has the technology to reduce, if not fully prevent, fireworks related stress to livestock. As mandatory in many other areas and countries, **low-noise fireworks**, are easily available at firework outlets throughout Maine and provide a viable option. I urge your support for LD1345, not only for our working farms, but for our family farms and homesteads as well.

Thank you,

Vicki Schmidt

Troika Drafts & Harness Shop, Hebron ME

Firefighter, Buckfield ME

Maine Fire Services Instructor III

Maine State Federation of Firefighter, Volunteer & On-Call Firefighters, MFPS

207-890-4590

[*Why Cows and Fireworks Don't Mix | Modern Farmer](#)

Additional Information for CJ&PS Committee and Work Session

[Quiet Fireworks \(firework-review.org.uk\)](#)

www.firework-review.org.uk/quiet-fireworks/

[Low Noise Fireworks | Illusion Fireworks | Quiet Firework Displays](#)

<https://www.illusionfireworks.com/low-noise-fireworks>

Lots of great info from the UK where Low Noise are popular and also successfully mandated in many areas.

Phanton Fireworks offers **13 options for low-noise fireworks**. They have at least 4 locations in Maine. <https://fireworks.com/blog/noiseless-fireworks>

If the fireworks industry sincerely cares about working** to protect livestock in Maine they can commit to create low-cost high-impact information for their stores that ensure:

* promotion of the many benefits and uses of Low Noise fireworks

* offerings for Low-Noise fireworks are fully represented and categorized on their webpages

* work with stakeholder to create signage and other infograms regarding

* Low-Noise point of sale questions such as "does any nearby property house horses or livestock", if so, are you aware of the requirement of Low-Noise fireworks at the location of detonation?

** ideally with Maine livestock industry stakeholders and livestock owners

Closed for winter and limited hours offers

little/no positive economic impact to Maine compared to the loss and injury of livestock owned by our 7-days a week year-round farms.
Low Noise fireworks noted as a featured item!
They are easily and readily available in Maine!

**Testimony of Vicki Schmidt, Hebron ME in support of LD 1348,
An Act To Limit the Decibel Level of Fireworks Near Working Farms**

May 7th, 2021

Senator Deschambault, Representative Warren, and members of the Joint Standing Committee On Criminal Justice & Public Safety.

Thank you for today's opportunity, I am Vicki Schmidt from Hebron Maine and I am a State Fire Instructor III with the Maine Fire Services Institute, I am also member of the Buckfield Fire Department, and serve on the Maine Fire Protection Services Commission for Volunteer and On-Call Firefighters on behalf of the Maine Federation of Firefighters. Additionally, I own Troika Drafts, a 150 acre working draft horse farm in Hebron. The things I know best are horses, agriculture, fire, and emergency services.

As a State Fire Instructor one of the customized programs I instruct is Large Animal Emergency Rescue (LAER). My courses are designed for farm owners, firefighters, and other emergency responders. Fireworks are not only a major cause of large animal emergency rescue incidents; the resulting stress to the animal often results in their death. In addition, while the stress of fireworks to livestock may not always escalate to an emergency incident level, there is ample evidence it does result in the loss and injury of young stock due to trampling, and reduced milk production, especially in dairy cattle.*

Since fireworks became legal in 2012 I have been involved in many LAER incidents caused by fireworks. Most notably, in the early morning hours of July 8th, 2020. Livestock, horses included, are "flight" animals. In a panic situation it is nearly impossible to contain them. Due to the complexity of this entrapment incident, local first responders spent nearly five hours working to free the horse. During these hours alternative crews and apparatus were depended on to serve the towns routine calls. This incident cost the local taxpayers \$3500 in response, not including what was donated by volunteers helping at the scene. While fireworks are considered "entertainment", no form of entertainment should cause this degree of pressure on public resources, nor should it routinely cost neighborhood livestock owners loss and stress to their livelihood.

The fireworks industry has the technology to reduce, if not fully prevent, fireworks related stress to livestock. As mandatory in many other areas and countries, **low-noise fireworks**, are easily available at firework outlets throughout Maine and provide a viable option. I urge your support for LD1345, not only for our working farms, but for our family farms and homesteads as well.

Thank you,

Vicki Schmidt

Troika Drafts & Harness Shop, Hebron ME

Firefighter, Buckfield ME

Maine Fire Services Instructor III

Maine State Federation of Firefighter, Volunteer & On-Call Firefighters, MFPSC

207-890-4590

[*Why Cows and Fireworks Don't Mix | Modern Farmer](#)

Additional Information for CJ&PS Committee and Work Session

[Quiet Fireworks \(firework-review.org.uk\)](http://quiet-fireworks.org.uk)

www.firework-review.org.uk/quiet-fireworks/

[Low Noise Fireworks | Illusion Fireworks | Quiet Firework Displays](#)

<https://www.illusionfireworks.com/low-noise-fireworks>

Lots of great info from the UK where Low Noise are popular and also successfully mandated in many areas.

Phanton Fireworks offers **13 options for low-noise fireworks**. They have at least 4 locations in Maine. <https://fireworks.com/blog/noiseless-fireworks>

If the fireworks industry sincerely cares about working** to protect livestock in Maine they can commit to create low-cost high-impact information for their stores that ensure:

- * promotion of the many benefits and uses of Low Noise fireworks

- * offerings for Low-Noise fireworks are fully represented and categorized on their webpages

- * work with stakeholder to create signage and other infograms regarding

- * Low-Noise point of sale questions such as “does any nearby property house horses or livestock”, if so, are you aware of the requirement of Low-Noise fireworks at the location of detonation?

** ideally with Maine livestock industry stakeholders and livestock owners

Closed for winter and limited hours offers

little/no positive economic impact to Maine

compared to the loss and injury of livestock

owned by our 7-days a week year-round farms.

Low Noise fireworks noted as a featured item!

They are easily and readily available in Maine!

January 14th 2022 LD 1348 Work Session

Committee Information – Vicki Schmidt, Hebron ME (*working farm owner, firefighter*)

207-890-4590 troika@megalink.net

As the owner-operator of, Troika Drafts & Harness Shop, a 150-acre working draft horse farm that borders two other towns in two different counties, and at the request of Senator Cyrway, I have compiled notes relative to changes to improve the functionality of changes to LD1348

Information gathered as a carryover of the 129th Legislative session and LD1348:

An act To Limit the Decibel Level of Fireworks Near Working Farms

Due to a title and text that invite complexities for enforcing “distances and decibels” along

with recent improvements in statewide technologies that easily allow for a notification system

(InforME) for the detonation location of fireworks I ask you to consider the following:

More appropriate title:

And Act to Reduce and Prevent Losses to Taxpayers, Heritage Industries, and Natural Resources from the Impact of Fireworks.

RECOMMENDATION: no tie to decibels or distances – Every law agency in Maine agrees there is no functional and efficient way to enforce either of these elusive characteristics regarding the detonation of fireworks. This is especially important when one considers that sound/shock waves travel much further and transcend homeowner property lines, town lines, and county boundaries.

Sound and shock waves from fireworks travel approx 1,100 FEET PER SECOND.

RECOMMENDATION: Amend State Law to include Statewide notification and/or permit system for **ALL** municipal jurisdictions, including towns with or without ordinances. This would function much like we currently do with fire-permitting (*see Lt Gomes' MFS information which provides an excellent idea but needs to be expanded to include all Maine municipalities*).

No opt-in or opt-out just ONE minimal-standard simplified system that citizens, law

enforcement, and other authorities/affiliates* can access/query. This system would create a

fair balance for notification as well as allow others to determine where and when consumer fireworks will be or have been, fired off.

* authorities/affiliates include but not limited to: animal control offices, water quality monitors, farm field and pasture managers. etc. (many of the toxic chemicals from fireworks bio accumulate within the food chain)

For those municipalities with current ordinances; most ordinances ban consumer fireworks and a notification / location system would compliment town ordinances for ease of enforcement, and also allow those that are outside the ordinance jurisdiction but still impacted by consumer fireworks to monitor detonation and debris.

January 14th 2022 LD 1348 Work Session (pg 2 of 3)

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MISC NOTES and INFORMATION:

Info regarding decibels / shock waves:

While a perceived management solution at the time consumer fireworks were introduced in Maine, Home Rule to manage consumer fireworks is not working.

Noise from modern fireworks can **reach 175 decibels** — louder than a jet plane taking off (150 decibels from 82 feet away) or a jackhammer (about 100 decibels). Hearing damage to humans and animals can result from multiple lifetime exposures or a single loud blast.

Fireworks generate three very noticeable forms of energy: a tremendous release of sound, bright light, and heat. The tremendous booms heard at ground level are the result of the rapid release of energy into the air, causing the air to expand faster **than** the speed of sound. This produces a shock wave at a speed that causes a sonic boom.

This speed depends on air temperature, but it is typically **about 1,100 feet per second** in "standard" air. Denser air contains the blast/sound wave, while high humidity transmits sound waves more efficiently, "In addition, temperature inversions, in which colder air sits below warmer air in the atmosphere, can dramatically increase the blast wave."

Random Examples of Taxpayer response costs to Local & State Emergency Services In Maine in 2020:

Fireworks were the cause of 14 structure fires and 20 wildfires. Additionally, 14 people were taken to a hospital due to reported fireworks-related injuries (ages 5-41yrs old).

<https://www.wmtw.com/article/mainers-cautioned-to-be-careful-with-fireworks-over-july-4thholiday/36914062>

In Maine in 2012 consumer fireworks caused a reported 20 structure fires, 38 wild fires and 20 injuries treated at Maine hospitals

Impacts to Livestock (Heritage Industries)

Sound & Shock waves from thunder storms are signaled to livestock. They can sense the changes in temperature, winds, sky darkening, and air-pressure. They inherently prepare and seek shelter against thunder/lightning (*decibels in common thunderstorms approx 120dB*)

Sound and shock waves from fireworks at NOT SIGNALLED to livestock. They can not sense or prepare for the sudden and extreme (150-175dB) explosion. Most fireworks are also a 360-degree circular spatial impact of sound & shock along with whistles, buzzing & crackling noises, colors, flashing lights, etc. Nothing in nature prepares livestock for this continued environmental phenomenon.

January 14th 2022 LD 1348 Work Session (pg 3 of 3)

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Impacts to Livestock (Heritage Industries) cont

Why Cows and Fireworks Don't Mix

<https://modernfarmer.com/2014/07/stampede-4th-july/>

Yarmouth Fire Rescue \$3500 response cost to taxpayers:

The town of Yarmouth has an ordinance against setting off fireworks: It carries up to a \$200 fine. "But we haven't been able to pinpoint where they are or who's releasing the fireworks," North Yarmouth Code Enforcement Officer Ryan Keith said.

<https://wgme.com/news/local/yarmouth-horse-owner-blames-fireworks-for-death-of-belovedpet>

Negative Impact of Sedatives for Livestock

For many reasons the use of sedatives and /or tranquilizers for livestock so they can deal with the fear and pain of fireworks is not functional or financially feasible for **working** farms and their livestock.

1. Costly: \$35-75 per head
2. Show and work animals can not be routinely tranquilized or sedated for performance and production reasons. (bred cows/mares, milking cows)
3. Firework tranquilizers/sedatives should not be used in animals /livestock raised for human consumption
4. Timing for proper tranquilizing and sedation can not be planned due to non-holiday use of consumer fireworks – exactly what days and times to administer? For example, Demorsodan gel needs to be administered 45 minutes **BEFORE** an event and lasts for approximately half an hour.

Chemical Impacts to air, land, and water resources (Natural Resources)

In addition to the debris from fireworks that can litter and contaminate the local lakes, the chemicals that land in the water are noted as harmful, based upon a study from the **New Hampshire Department of Environmental Services**. **A common chemical that is released in fireworks is ammonium perchlorate, which is known to contaminate ground and surface waters, and can cause harm to aquatic creatures** residing in the lake. Further, copper compounds, sulfur dioxide, lead nitrate and lead chloride are released when fireworks are let off, and can be a hazard to the environment if released in mass amounts.

https://www.laconiadailysun.com/news/local/fireworks-displays-over-water-can-hurt-plantswildlife-there/article_b2572d89-86b9-5d70-89ff-17dcffe23cb9.html

Impacts to air, land, and water resources (cont)

Dr. Gordon and his team also analyzed 14 years' worth of air quality samples taken at dozens of sites across the United States by the Environmental Protection Agency (EPA) throughout each year. They found that levels of toxic metals were higher in samples taken near Independence Day and New Year's Eve celebrations than at any other time of the year.

Along with lead, titanium, strontium, and copper are commonly found in fireworks.

<https://nyulangone.org/news/common-fireworks-release-lead-copper-other-toxic-metals-air>

When fireworks go off, the metal salts and explosives undergo a chemical reaction that releases smoke and gases into the air. *These include **carbon dioxide, carbon monoxide, and nitrogen**—three greenhouse gases that are unfortunately responsible for climate change.* During the explosion, the metal salts do not 'burn up.' They are still metal atoms, and many of them end up as aerosols that bioaccumulate and poison the air, water, and soil. When inhaled or ingested, these metals cause a huge variety of short- and long-term reactions, ranging from vomiting, diarrhea or asthma attacks, to kidney disease, cardiotoxic effects, and a variety of cancers.

<https://brightly.eco/fireworks-environmental-impact/>

Selected articles from Maine, of many such articles, documenting destructive impacts of fireworks:

<https://www.mainepublic.org/maine/2017-07-06/discarded-fireworks-cause-house-fire-inscarborough>

<https://www.ellswothamerican.com/maine-news/was-it-a-safe-fourth-of-july-when-it-comesto-fireworks-not-really/>

Human Deaths Due to consumer fireworks in Maine:

2015

<https://www.cbsnews.com/news/maine-man-dies-shooting-fireworks-off-head-police-say/>

2017

<https://www.wmtw.com/article/fire-marshals-lewiston-man-dies-in-sabattus-fireworksaccident/12805855#>