

SOUND AGRICULTURAL PRACTICE
Opinion Number 98-1

SUBJECT: Request for an opinion pursuant to Section 308 of the Agriculture and Markets Law as to the soundness of a certain agricultural practice conducted by the Haberger Farm in the Town of Hamlin, Monroe County.

REQUESTOR: Mr. Charles Hungerford
Code Enforcement Officer, Town of Hamlin
P.O. Box 148
Hamlin, New York 14464

Preliminary Statement

On August 13, 1997 the Department received a request from Charles Hungerford, Code Enforcement Officer for the Town of Hamlin in Monroe County, to review the soundness of an agricultural practice on the Haberger farm. Mr. Hungerford requested that the Commissioner issue an opinion as to the soundness of the use of a diesel powered cooling unit, from a noise perspective, for the storage of produce grown on the farm. The Town has a local law which prohibits the operation of a stationary gasoline or diesel engine if the sound from such engine "can be heard through the closed windows and doors of a livingroom, bedroom or a den of a house located fifty (50) feet from the source." The local law states that it "shall not apply to the operation or use of ... farm machinery found to be sound practice by the NYS Commissioner of Agriculture."

On August 28, 1997 the Department received from Keith O'Toole, an attorney representing neighbors of the Habergers, a similar request for an opinion pursuant to Section 308 of the Agriculture and Markets Law for the same practice at the Haberger farm. The neighbors represented by Mr. O'Toole, Mr. and Mrs. Daryl Kelley, live across the road from the Haberger farm and have expressed concerns with the noise generated by the cooling unit.

Pursuant to these requests, the Department conducted a sound agricultural practice review of the use of the cooling unit at the Haberger farm. On October 21, 1997, Department Agricultural Resource Specialist Matt Brower visited the Haberger property to gather information on the use of the unit. Mr. Brower was accompanied on the visit by Robert Shrader, Public Health Sanitarian for the Monroe County Department of Health, and Robert Colby, the president of the Monroe County Farm Bureau.

Information Considered in Support of the Opinion

1. The farm is owned by Joseph Habberger and his brother Richard. The farm is located at 812 Walker Lake Ontario Road in the Town of Hamlin, Monroe County, and consists of approximately 60 acres which is used for the production of vegetables for fresh marketing. The Habbergers also have several greenhouses which are used for the production of bedding plants. According to the Department's agricultural district file, the farm is in Monroe County Agricultural District #5 which was recertified December 19, 1996.
2. According to the Habbergers, they began marketing farm fresh vegetables in 1983, and at that time they also operated a dairy farm on the property. The Habbergers stated to Mr. Brower that they discontinued the dairy in 1988 or 1989 and began expanding the vegetable operation.
3. According to the Habbergers, they sell their vegetables at farmers' markets in the city of Rochester on Tuesdays, Thursdays and Saturdays. The Habbergers told Mr. Brower that they load their vegetables into the delivery trucks either late the night before they travel to the markets or between 4:00 a.m. and 5:00 a.m. on the day of the markets. The Habbergers indicated that because of the hours that the markets are open, the vegetables must be picked ahead of time and stored temporarily in a cool environment. They also indicated that this approach eliminates the need to hire help for harvesting because the harvesting can be done over a longer period of time as opposed to just prior to marketing. The Habbergers also stated that they used a smaller cooling unit until about two years ago. At that time, the business expanded to the point where a larger cooling unit was required.
4. According to the Habbergers, they currently use a diesel powered *Thermo King* cooling unit which is attached to a 46 feet long 1985 *Great Dane* semi trailer. The Habbergers stated that they use the cooling unit from the end of July until the middle of October. They indicated to Mr. Brower that the cooling unit generally runs from 9:00 a.m. to 10:00 p.m. but because of the cooler nights in the fall, the unit only needs to run for approximately 5 hours a day. The Habbergers also stated that the cooler never runs 24 hours a day.
5. During Mr. Brower's visit, the sound level from the cooling unit was recorded at various locations using a *Simpson* Model 886 type 2 Sound Level Meter, which was provided by Mr. Shrader. Mr. Shrader stated that he calibrated the meter to 114 decibels using a Model 890 Sound Level Calibrator. Mr. Shrader measured the sound level at various locations between 4:15 p.m. and 6:30 p.m. Mr. Brower recorded the sound level at various locations between 8:00 p.m. and 8:30 p.m. Mr. Brower calibrated the meter just prior to measuring the sound level in the evening. The measurements made by Mr. Shrader and Mr. Brower, which ranged from 40 dBA to 90 dBA and 45 dBC to 98 dBC, depending on where the measurements were made and whether the cooling unit was on or off, are summarized on the annexed chart.

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The intensity of a sound is the loudness or pressure it exerts through the ear and is measured in units called decibels (dB). The dBA measurements represent the levels of high frequency sound, the type of sound that poses the greatest risk of damage to hearing. The dBC measurements represent the levels of lower frequency sound.

6. Mr. Brower asked the Habergers about the possibility of relocating the trailer farther away from the neighboring houses. They stated that the trailer needs to be in an area with adequate lighting so that the delivery trucks can be loaded before sunrise. They indicated that the trailer must also be in a location that allows them to back the delivery trucks up to the side door on the trailer which allows for efficient loading and unloading. The Habergers indicated to Mr. Brower that in order to relocate the trailer so that it is further from the neighboring houses, they would have to construct a gravel road. They also indicated that they have already moved the trailer an additional 130 feet from the road at the Town's request. Mr. Brower asked the Habergers if he could walk around the property to see if, in fact, there was another suitable location for the trailer. They denied Mr. Brower's request.
7. According to Mr. Brower, at the time of his visit, the trailer was 141 feet from the road and 244 feet from the Kelleys' house. Mr. Brower reviewed aerial photographs of the Haberger property, which were acquired from the Monroe County office of the USDA Farm Service Agency. According to Mr. Brower, it appears from a review of the photographs that other suitable locations for the trailer may exist on the property. These alternative sites may provide some shielding of the noise and would also result in the trailer being farther from the complainant's house. However, since the Habergers would not allow Mr. Brower to view this portion of the property, it is not possible to fully determine the adequacy of their logistical attributes, i.e., closeness to fields, road access, drainage, etc.
8. On October 21, 1997 Mr. Brower met with the Kelleys at their house to discuss their concerns relative to the use of the diesel cooling unit. Two of the Kelleys' neighbors were also present. One of the neighbor's property adjoins the Haberger property on the south side and the other neighbor's property adjoins the Kelleys' property on the south side.
9. The Kelleys indicated that the noise level at the time of Mr. Brower's visit was not as high as in the past because the Habergers had recently installed a muffler on the diesel engine. According to Mr. Brower, he could hear the cooling unit at various locations inside the Kelleys' house. The Kelleys indicated to Mr. Brower that the noise level did not decrease when the trailer was moved back away from the road. The Kelleys stated that the cooling unit is turned on at 3:30 a.m. or 4:00 a.m. and is left running until 1:00 a.m. According to the Kelleys, their children cannot sleep in their bedrooms when the cooling unit is running and they have been unable to sell their house because of the noise. The Kelleys stated to Mr. Brower that the Habergers used the cooling unit until mid November in 1996. The Kelleys also stated that the Habergers began using the unit in early June in 1997. The Kelleys provided Mr.

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Brower with a letter dated October 22, 1997, reiterating what they told him at their house.

10. According to one of the neighbors, his family has trouble sleeping in the summer when the windows are open. He also stated to Mr. Brower that the trailer should be moved to eliminate the impacts to the neighbors. The neighbor also indicated to Mr. Brower that the cooling unit is used sometimes when the outside temperature is 40 degrees. The neighbor gave Mr. Brower a letter dated October 20, 1997, reiterating what he told Mr. Brower at the Kelleys' house.
11. One of the neighbors stated to Mr. Brower that he has been around farms but has never experienced noise such as that coming from the cooling unit. He stated to Mr. Brower that the cooling unit does not cause sleeping problems for his family because of the design of his house. The neighbor indicated that the noise is only bothersome when his family is outside.
12. In a letter to the Department, Mr. O'Toole (the attorney representing the Kelleys) identified several alternatives to eliminate the impacts from the cooling unit. The alternatives identified by Mr. O'Toole include: selling to the customers at the time of harvest; building a storage building for cooling the vegetables; moving the trailer farther away from the Kelleys' house or turning the trailer around so the cooling unit is away from the Kelleys' house.
13. The Department mailed a letter to eight landowners adjacent to the Haberger property notifying them of the agricultural practice review and inviting them to comment on the practice. The Department received one response from the Kelleys. In a letter received by the Department on November 28, 1997, the Kelleys stated that one family member has had reoccurring headaches and that communication with their children has been broken, as a result of the noise from the cooling unit, when the children are playing outside. The Kelleys also indicated that the noise has disrupted their sleeping patterns, which in turn has affected the family physically and emotionally. The Kelleys also provided a record of dates and times when the cooling unit was running during July, August, September and October. The information indicates that the cooling unit was used almost every day during this period and that it was turned on as early as 3:40 a.m. and was turned off before 9:30 p.m. only on four occasions. The Kelleys also submitted a photo of the trailer taken prior to Mr. Brower's visit. According to Mr. Brower, upon close inspection of the photograph, it appears that the muffler was not on the truck at the time the photograph was taken.
14. On November 28, 1997 the Department received a letter from Eve Meagher, the Real Estate Agent trying to sell the Kelleys' house. Ms. Meagher indicated that two potential buyers lost interest in the house as a result of the noise from the cooling unit.
15. On October 22, 1997 Mr. Brower met with Richard Kruger, Supervisor for the Town of Hamlin, and Ed Evans, a Town Councilman, to gather information on the use of

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the cooling unit. Mr. Kruger stated to Mr. Brower that he passes the farm regularly and hasn't noticed any change in the noise level recently. Mr. Kruger indicated that he hadn't noticed whether there has been a muffler on the cooling unit or not. Mr. Kruger indicated the noise from the cooling unit was similar to that of a grain dryer or milking pump compressor. Mr. Evans stated that the noise level has been fairly constant.

16. On October 23, 1997 Mr. Brower contacted Charles Hungerford to gather information on the use of the cooling unit. Mr. Hungerford indicated to Mr. Brower that he was out to the Haberger property about a week after the trailer was moved back from the road and he did not notice any type of muffler on the cooling unit. He stated that the trailer could be moved to the north side of the greenhouses and that the Habergers had a similar type of trailer parked there in the spring. Mr. Hungerford stated that he would like to see the trailer moved to this location. Mr. Hungerford explained to Mr. Brower that when he made the statement that in his opinion the practice is sound, in a letter to the Department dated August 11, 1997, he meant that the use of the cooling unit and trailer for the storage of vegetables is sound; however, it should be done in a manner that does not impact the neighbors.
17. On October 31, 1997 Mr. Brower contacted Steve Gleason, a Noise Control Engineer for the Thermo King Corporation. Mr. Gleason indicated to Mr. Brower that based on the sound testing that is conducted by the company, he would expect that this type of unit, when properly muffled, would produce sound level readings in the range of 75 to 81 decibels at high speed at a distance of 7 meters (22 Feet) from the unit. Mr. Gleason also indicated that the sound level would drop to about 75 decibels at low speed. Mr. Brower informed Mr. Gleason that the sound levels that he obtained from under the unit and at 50 feet from the unit were 90 dBA and 70 dBA, respectively. Mr. Gleason indicated to Mr. Brower that the recorded sound levels are consistent with what would normally be expected. Mr. Gleason stated that turning the trailer so that the side with the cooling unit is away from the Kelleys' house might help.
18. On October 23, 1997 Mr. Brower provided William McColl, Head of the Noise Section of the Environmental Analysis Bureau for the New York State Department of Transportation, with a copy of the sound level readings recorded at the site and asked him to provide the Department with an analysis of the situation. In a letter dated November 21, 1997 Mr. McColl responded to the Department's request and provided possible options for reducing the impacts from the noise generated by the cooling unit.
19. According to Mr. McColl, based on readings taken outside the Kelleys' house with the unit off and with the unit turned on, "a source noise level reduction of at least 12 dB is needed to eliminate the effect of the cooling unit at the receiver." Mr. McColl indicated that locating the trailer behind some type of barrier such as a house or barn appears to "have the best chance of success" for abating the noise generated by the

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cooling unit in this situation. He also indicated that shielding the cooling unit with an enclosure made with 3/4 inch plywood is an option but would be less effective.

20. During a phone conversation with Mr. Brower on January 9, 1998 Mr. McColl indicated that the sound levels that were recorded are high for the average suburban or rural neighborhood. Mr. McColl also told Mr. Brower that the sound levels recorded are unacceptable for night time particularly during the summer when neighbors are more likely to have their windows open.
21. On December 5, 1997 I contacted Mr. Shrader to discuss the Health Department's regulations concerning noise. Mr. Shrader indicated that the Health Department does not have any specific standard in terms of noise level. Mr. Shrader stated that Monroe County does have a sanitary code addressing nuisance noise however, the language in the regulation is extremely vague and the code is difficult to enforce because it does not contain any sound level standard.
22. A Science and Technology Guide published by the University of Missouri Cooperative Extension, entitled *Noise-the Invisible Hazard*, discusses the effects of noise on hearing and provides the following examples of sound intensity levels for various sources: 0 dB (acute threshold of hearing-weakest sound), 15 dB - (threshold of hearing), 30 dB (whisper), 45 dB (rustling leaves, soft music), 60 dB (normal conversation), 75 dB (average radio, vacuum cleaner), 85 dB (inside acoustically insulated tractor cab), 90 dB (OSHA limit - hearing damage if excessive exposure to noise levels above 90 dB), 100 dB (tractor, farm equipment, power saw), 120 dB (chain saw, jack hammer, snowmobile), 135 dB (jet take off, amplified music) and 140 dB (threshold of pain: gunshot, siren at 100 feet). In describing the psychological effects of noise the Guide states: "noise can startle, annoy, and disrupt concentration of sleep." These psychological effects are the result of the human body's inability to adjust to noise. The guide also indicates that people experience depression, nervousness and frustration as a result of noise. The physiological effects of noise are described as including "noise-induced hearing loss or aural pain, nausea, and reduced muscular control." The third effect of noise identified by the Guide is "interference with communications".
23. DEC regulations for "Noise from Heavy Motor Vehicles." [6 NYCRR Part 450] provide procedures for the inspection of "motor vehicles and combinations of motor vehicles." [6 NYCRR§ 450.1(a)] It does not appear that these regulations, which establish allowable noise levels for vehicles on highways ranging from 84 dBA to 95 dBA, depending upon factors such as the distance at which the measurement was made, whether the vehicle was stationary or moving, and the nature of the surface on which it was located, are applicable to the cooling unit in question. The Habergers' unit, is not a "motor vehicle" as that term is defined in the regulations, but would be considered a "trailer," which is defined as "[a]ny vehicle not propelled by its own power, drawn on the public highways by a motor vehicle operated thereon," [6 NYCRR §450.2(t)]. Accordingly, that to be subject to regulation under Part 450, the

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trailer would have to be drawn on a public highway by a motor vehicle while being used in the practice under review. Since the trailer is not attached to a motor vehicle and is not drawn on a highway by such a vehicle while being used in the practice in question, Part 450 is not relevant for the purpose of determining whether the practice is sound.

24. On January 14, 1998, Mr. Rusnica spoke with DEC attorney Colleen McCarthy, whose area of responsibility includes the Part 450 regulations. Mr. Rusnica explained that the diesel cooling unit is being used to store produce and is not used with a motor vehicle on the highway. Ms. McCarthy agreed that the Part 450 regulations did not apply to the cooling unit. She also noted that DEC generally defers to local noise laws.
25. Section 386 of the Vehicle and Traffic Law, "Motor vehicle sound level limits," establishes maximum allowable sound levels for motor vehicles ranging from 76 dBA to 90 dBA depending upon the weight of the vehicle and the speed at which it is traveling. The statute, however, exempts "vehicles and implements or combinations thereof used solely for farm purposes... ." Since the cooling unit in question is used solely for farm purposes, the provisions of section 386 do not apply to it and the section is thus not relevant for the purpose of determining whether the practice under review is sound.

Findings

Based upon the facts, information and circumstances described above, and in consultation with the Advisory Council on Agriculture; the New York State College of Agriculture and Life Sciences at Cornell; the USDA Natural Resources Conservation Service; and the Sound Agricultural Practice Guidelines¹ by which agricultural practices are evaluated, I find the following:

1. The Department has found no evidence and received no other information indicating that the Habergers have been cited for any violation of state or local law as a result of the use of the cooling unit. However, the Code Enforcement Officer has indicated that "[t]he noise from the unit can be heard inside a house across the street with all windows and doors closed . . ." and that the ". . . town noise ordinance . . . states . . .

¹ On November 1, 1993 the NYS Advisory Council on Agriculture published its report entitled *Protecting the Right of New York Farmers to Engage in Sound Agricultural Practices*. The Council developed guidelines to assist the Commissioner of the Department of Agriculture and Markets in determining what is sound pursuant to Section 308 of the Agriculture and Markets Law. The Guidelines state that the practice 1) should be legal; 2) should not cause bodily harm or property damage off the farm; 3) should achieve the results intended in a reasonable and supportable way; and 4) should be necessary. The sound agricultural practices guidelines recommended by the Advisory Council on Agriculture are given significant weight in assessing agricultural practices.

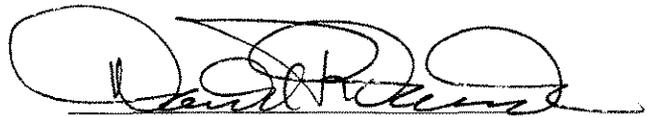
this would be a violation with the exception that this is found to be a sound practice by the New York State Commissioner of Agriculture.”

2. The Department has found no evidence that the use of the cooling unit has resulted in property damage off the site. With regard to the issue of whether the use of the unit has resulted in bodily harm, the Kelleys have indicated that the noise from the unit has caused communication problems with their children when they are outside and has affected their sleep which has impacted the family both physically and emotionally. Published information suggests that noise can have psychological effects on people. According to Mr. Brower, he was able to hear the cooling unit from two of the bedrooms in the complainants’ house and it was noticeably louder when the window was open, as would sometimes be the case during the warm summer months when the unit is in use. According to Mr. McColl, Head of the Noise Section of the Environmental Analysis Bureau for the New York State Department of Transportation, the sound levels produced by the cooling unit are high for this type of neighborhood.
3. The cooling unit seems to provide a cost effective method of providing storage for the vegetables until market time. However, it appears that the noise issue could be resolved by moving the trailer to a location behind some building, such as the Habberger house or a barn, and turning the trailer so the cooling unit is away from the neighboring houses. It appears that this would be an inexpensive way to reduce off farm impacts but, the feasibility of other locations could not be thoroughly evaluated due to the unwillingness of the Habbergers to allow Mr. Brower to look at other sites on the farm. It does not appear that the use of vegetative screening would be an effective method of reducing off farm impacts in this case.
4. The use of some type of cooling unit is necessary to provide quality crops for market with minimum labor costs. Without the use of the cooling unit, the Habbergers would have to harvest the vegetables over a shorter period of time, just prior to marketing.

Conclusion

Based on the foregoing and in accordance with section 308 of the Agriculture and Markets Law, I am unable to conclude that, from a noise perspective, the use of a diesel powered cooling unit on the Habberger farm for the storage of produce grown on the farm, as described above, is sound.

6/7/98
Date


Donald R. Davidsen, D.V.M.
Commissioner

Decibel Levels Recorded on October 21, 1997
Using a Simpson Model 886 Sound Level Meter Type 2

Decibel levels recorded between 4:15 p.m. and 6:30 p.m., weather conditions were breezy, cool and cloudy with light showers:

Location	Condition	Scale	Decibel Level
under cooling unit	cooler turned on	A	90
under cooling unit	cooler turned on	C	98
under cooling unit	cooler turned off	A	49
under cooling unit	cooler turned off	C	66
50 ft. from unit	cooler turned on	A	70
50 ft. from unit	cooler turned on	C	85
100 ft. from unit	cooler turned on	A	65
100 ft. from unit	cooler turned on	C	77
141 ft. from unit (east edge of road)	cooler turned on	A	60
141 ft. from unit (east edge of road)	cooler turned on	C	73
168 ft. from unit (west edge of road)	cooler turned on	A	60
168 ft. from unit (west edge of road)	cooler turned on	C	74
244 ft. from unit (Kelleys' front porch)	cooler turned on	A	63
244 ft. from unit (Kelleys' front porch)	cooler turned on	C	70
244 ft. from unit (Kelleys' front porch)	cooler turned off	A	45
244 ft. from unit (Kelleys' front porch)	cooler turned off	C	55
inside Kelleys' dining room	window closed and cooler turned on	A	40
inside Kelleys' dining room	window closed and cooler turned on	C	60
inside Kelleys' dining room	window open and cooler turned on	A	45
inside Kelleys' dining room	window open and cooler turned on	C	60
inside Kelleys' dining room	window closed and cooler turned off	A	40

Location	Condition	Scale	Decibel Level
inside Kelleys' dining room	window closed and cooler turned off	C	50
upstairs northeast bedroom	window closed and cooler turned on	A	40
upstairs northeast bedroom	window closed and cooler turned on	C	58
upstairs northeast bedroom	window closed and cooler turned off	A	40
upstairs northeast bedroom	window closed and cooler turned off	C	45
downstairs bedroom, north side of house	window closed and cooler turned off	A	40
downstairs bedroom, north side of house	window closed and cooler turned off	C	45

Decibel levels recorded between 8:00 p.m. and 8:30 p.m., weather conditions were windy with showers:

Location	Condition	Scale	Decibel Level
168 ft. from unit (west edge of road)	cooler on	A	60
168 ft. from unit (west edge of road)	cooler on	C	75
244 ft. from unit (Kelleys' front porch)	cooler on	A	57
244 ft. from unit (Kelleys' front porch)	cooler on	C	69
inside Kelleys' dining room	window closed and cooler turned on	A	40
inside Kelleys' dining room	window closed and cooler turned on	C	56
downstairs bedroom north side of house	window closed and cooler turned on	A	42
downstairs bedroom north side of house	window closed and cooler turned on	C	63
upstairs northeast bedroom	window closed and cooler turned on	A	40

Location	Condition	Scale	Decibel Level
upstairs northeast bedroom	window closed and cooler turned on	C	58
upstairs northeast bedroom	window open and cooler turned on	A	45
upstairs northeast bedroom	window open and cooler turned on	C	60