SOUND AGRICULTURAL PRACTICE
Opinion Number 93–2

SUBJECT: **Request for an opinion pursuant to Section 308 of the Agriculture and Markets Law as to the soundness of certain agricultural practices conducted by Finger Lakes Eggs, Inc., Fayette, New York**

REQUESTOR: **Brian Dombrowski**
Seneca County Department of Health
31 Thurber Drive
Waterloo, New York 13165

Preliminary Statement

In a letter dated January 21, 1993, Mr. Brian Dombrowski, Public Health Director for the Seneca County Department of Health, asked for an opinion pursuant to Section 308 of the Agriculture and Markets Law as to whether certain agricultural practices employed by Mr. Fritz Aude, operator of Finger Lakes Eggs, Inc., are sound. Mr. Dombrowski indicated that he had received a number of complaints about the farm concerning excessive flies and odor. In a subsequent letter dated March 3, 1993, Mr. Dombrowski, at the Department's request, clarified the agricultural practices he wished to have considered. Pursuant to these requests, the Department advised Mr. Aude in a letter dated May 10, 1993, of its desire to conduct a review of the following practices conducted on his farm:

1. the storage and disposal of chicken manure;
2. the disposal of dead fowl; and
3. the packaging of eggs.

On June 17, 1993, Department Agricultural Resources Specialist, Mr. Matthew Brower, conducted an on–site review of the farm operation. In conducting the review, Mr. Brower focused specifically on the extent to which the subject practices might cause fly or odor problems. Other influences or results of the subject practices, eg. water quality, were not assessed. Mr. Brower was accompanied by Dr. Donald Rutz, an Associate Professor of Veterinary Entomology at the Cornell College of Agriculture and Life Sciences, Mr. Dombrowski and Mr. Aude. This opinion is based on information provided by Mr. Brower, expert opinion provided by Dr. Rutz, and other pertinent information as more fully set forth below.

Information Considered in Support of the Opinion

1. The Finger Lakes Eggs, Inc. is an egg production and field crop operation located in the Town of Fayette, Seneca County. The farm lies within Seneca County Agricultural District

#8. According to the Seneca County Agricultural Stabilization and Conservation Service, the operation consists of 1,236 acres of owned and rented cropland of which 1,041 acres were planted to corn and soybeans and 195 acres enrolled in the USDA annual set aside program in 1993. Not all of the farm's fields are contiguous, with some up to five miles from the main farm site. The egg production part of the operation includes two poultry houses and an egg packaging room which is attached to one of the poultry houses. Each poultry house contains approximately 30,000 birds.

2. Manure Storage and Disposal

a. Storage – The chicken manure falls from the cages in the two poultry houses into pits below each house. Mr. Aude told Mr. Brower that he empties the pits every two weeks (14 days). The manure pits had been emptied only a few days prior to Mr. Brower's visit. Consequently, only a few inches of manure had accumulated. Dr. Rutz indicates that it would have been preferable had Mr. Aude not cleaned his storage pits of manure during the summer because allowing the manure to accumulate and "cone" increases surface area which is more conducive to drying. Once the pits were emptied, however, Mr. Aude had to continue to remove the manure periodically throughout the summer because the new manure accumulations would not dry out, thereby encouraging fly breeding. In Dr. Rutz's opinion, Mr. Aude should be removing the manure from the pits every ten days at a minimum to interrupt the fly breeding cycle.

Leaking watering equipment in poultry houses results in wet manure in the pits which becomes the focus of fly breeding. Dry manure on the other hand, promotes the establishment of natural enemies of flies such as beetles that eat fly eggs and wasps that attack fly pupae. Mr. Brower observed, on the day of his visit, that one pit had a small wet area 6–8 inches in diameter caused by a slow leak in the watering equipment. The other pit had four wet areas caused by leaks, two of which were steady streams. Mr. Aude informed Mr. Brower that he checks the pipes and other watering equipment in his poultry houses for leaks once a week. Dr. Rutz indicates that given the age and condition of Mr. Aude's facilities, he should be checking for leaks at least once a day. The Department notes that in a letter to Mr. Dombrowski dated July 3, 1991, Dr. Christopher J. Geden, a Veterinary Entomologist with the Cornell College of Agriculture and Life Sciences stated that Mr. Aude checks for and repairs leaking waterers frequently and that he saw no evidence at that time that water leaks were common. The Department's more recent visit indicates that this is no longer the case.

Mr. Brower observed that the odor in and around the manure storage facilities on the day of his visit was not unusually strong for this type of farm operation.

b. Pesticide Usage to Control Fly Breeding in Stored Manure – In Dr. Geden's letter of July 3, 1991 to Mr. Dombrowski, he discussed Mr. Aude's use of the pesticide Larvadex to inhibit fly production. Prolonged usage of this pesticide leads to fly resistance levels that render it ineffective. Dr. Geden noted that Mr. Aude is mindful of this concern and uses Larvadex properly so that it remains an effective control. Mr. Aude indicated to Mr. Brower that he had been using Larvadex in his poultry feed to help control flies. Tests conducted by Dr. Rutz determined that flies at Finger Lakes Eggs, Inc. had become resistant to Larvadex because of its continued, long–term usage. Dr. Rutz, therefore, recommended that Mr. Aude should begin using a replacement insecticide known as Rabon. Mr. Aude had not begun utilizing this insecticide by the time of Mr. Brower's visit on June 17.

c. Manure Application – Mr. Aude advised Mr. Brower that when the storage pits are emptied, the manure is placed in a spreader and taken to his fields for application. He said that in early spring, manure is applied to crop fields and incorporated at a later date. He further indicated that during the period preceding crop planting, any manure that is applied is plowed

under within 48 hours. He said that during the summer months, manure is spread on land enrolled in the USDA set aside program in a thin layer (about 5 tons per acre) to promote drying. Mr. Aude told Mr. Brower that the regulations of the set aside program prevent him from plowing the manure under in the summer.

Chicken manure should be applied to fields during the summer in a thin layer on dry, sunny days. Dr. Rutz indicates that although the summer months are not the appropriate time for removal of manure, if it must be done, as is the case with Finger lakes Eggs, Inc. this year, the manure should be incorporated into the soil on the day of application to prevent fly pupae in the manure from hatching. In a July 3, 1991 letter, Dr. Geden stated that Mr. Aude is well aware of the need to spread manure thinly on warm, sunny days, and that he accordingly regulates the timing and loading of his manure spreading activities to minimize the risk of fly emergence from his fields. However, Mr. Robert Schuller, an employee of Cornell working under Dr. Rutz's general direction, observed two recent incidents of field spreading by Finger Lakes Eggs, Inc. that did not conform to Dr. Rutz's recommendations. On August 18, 1993, he observed manure being landspread by one of Mr. Aude's employees on a set aside field. The employee indicated that the manure could not be incorporated because of the requirements of the federal program. He, therefore, attempted to destroy any fly pupae by making repeated passes with a tractor over the manure. Mr. Schuller indicated that this prevention measure proved to be ineffective and that a significant fly hatch ultimately occurred in that field. On August 27, 1993, Mr. Schuller observed landspreading activities on another of the farm's fields. Mr. Aude indicated to Mr. Schuller that he intended to incorporate the manure immediately. Mr. Schuller questioned whether this occurred, however, since he discovered considerable evidence of expelled pupae casings the following Monday, August 30, and the presence of a large number of adult flies in that field. This would probably not have occurred had the manure been incorporated promptly after spreading.

As noted previously, Mr. Aude apparently is under the impression that manure cannot be incorporated on fields enrolled in the set aside program. Ms. Nancy DeJohn, a Program Assistant with the Seneca County Agricultural Stabilization and Conservation Service, advised Mr. Brower that this is not the case. She stated that set aside fields can be plowed if the following conditions are met: the field must have cover by June 15, the field cannot be in a plowed state for more than 60 days (30 days if the field is highly erodible) and the farmer must submit a request to ASCS to plow the field. Mr. Aude has 63 acres of set aside land that have been determined to be highly erodible.

3. Disposal of Dead Fowl

According to Mr. Aude, dead chickens are taken from the poultry houses, placed in an oil–fired incinerator, and incinerated every two or three days. At the time of Mr. Brower's visit, he observed several dead chickens in the poultry houses.

Dr. Rutz indicates that dead chickens should be incinerated daily, or placed in plastic bags until incinerated, to inhibit fly breeding.

4. Packaging of Eggs

The egg packaging operation on the farm is conducted two times a day, seven days a week, according to Mr. Aude. The operation is performed by two people and usually takes about two hours each time to complete. Mr. Aude said the egg packing room is cleaned after each packing operation, including removal of broken eggs and flushing the packing room floor with water. He indicated that no fly or odor control measures are used in the packing room.

Mr. Brower observed the egg packing operation briefly during his visit. The egg packing room was, in his opinion, relatively clean with only a few flies in evidence. He also observed no unusually strong odors.

Conclusion and Opinion

Based upon the facts and circumstances described above, and in consultation with the State Advisory Council on Agriculture, the New York State College of Agriculture and Life Sciences, and the USDA Soil Conservation Service, I hereby conclude, pursuant to Section 308 of the Agriculture and Markets Law that:

1. The chicken manure storage and disposal practices conducted by Finger lakes Eggs, Inc., as they relate to effective fly management and odor control, are not sound due to the operator's failure to: remove manure from the poultry house storage pits every ten days or less and maintain a leak–free condition at all times; inspect watering equipment in the poultry houses for leaks daily; use needed and appropriate pesticides to control flies in the manure; and incorporate manure into fields on the day of application during the summer months.

2. The practices of Finger Lakes Eggs, Inc. involving the disposal of dead fowl are unsound due to the failure to incinerate all dead birds daily or to otherwise dispose of them in plastic bags to prevent fly development and odor; and

3. The egg packaging practices of Finger Lake Eggs, Inc. and the condition of its packing room as observed by Mr. Brower are not, in the Department's opinion, likely to give rise to fly populations or odors that would generate off farm adverse fly and odor conditions. Therefore, the Department is not issuing an opinion on this practice.

9-22-93
Date

Richard T. McGuire
Commissioner