

February 20, 2002

Mr. Richard H. Matthews
Mr. Mark Keating
1400 Independence Ave., SW
Room 4008 South Building
Washington

Dear Mr. Matthews & Keating,

Thank you so much for the opportunity to meet with you on the 23rd of January. My daughter, Margot, a strong conservationist, came to the meeting out of general interest and to support her Dad.

You gave me some “homework” to do which was basically to give you some numbers on our standards that we have been using. I am pleased to give some of our basic standards.

1.) SPACE PER BIRD INSIDE THE BARN: 1.5 sq. feet for brown birds which are heavier than white birds. This is typical and safe. I have used it for 30 years without any problem. It allows for easy passage of birds to and from nests and feeders. It doesn't crowd them so much that they develop pecking at one another. This density also allows birds to take dust baths and nest in the afternoon.

The standard recommended by a poultry textbook, Commercial Chicken Production Manual, Mack O. North on page 255 Table 15.1 is 1.75 sq. feet for a Slat and Litter operation. This is more generous than our standard. As you will note, the author does point out that his standards are “average,” for a slatted operation with 40% slats.

2.) SLAT FLOORS: 40% OF FLOOR AREA. We use slatted floors (benches) which are raised about 18” off the floor. They consist of hardwood slats that are laid across a 4' x 8' rectangle or frame with spaces of ¾” to allow the droppings to fall to the cement floor. The 4' x 8' rectangle consists of 2” x 4” wood. On each side of the barns we place the wooden 4' x 8' slatted benches. Our barns measure 40 feet wide on average. The slats extend 8 feet

from each of the sides, therefore 16 feet of the 40' width is slatted floor, or 40% of total floor space consists of slatted floor.

A slatted floor allows for higher density of birds since the manure falls in a concentrated area below the birds and away from the birds. Floors are drier by use of slats, and the manure may be saved for composting or agricultural use. Without slatted floors the standard density is about 2.00 sq. feet per bird.

3.) FEEDER SPACE: 4" PER BIRD. We use the heavier 4.5 pound brown feathered layer and give them an average of 4 linear inches at the feed trough. On one side of a running foot, or trough, we allow 3 birds to feed. This means for each foot of linear trough, 6 birds can feed on both sides. We feel that this is a generous limit. Some poultry manuals allow only 3" per birds per one side of the trough. Feeders are placed on the slatted floors.

In actual practice, never do all of the birds eat at the feed trough at the same time. Some are on the floor; some are in or at the nests, and some are on the slatted floor. Therefore in practice, there is more than 4" of trough side available to each bird.

4.) SCRATCH AREAS: 40% OF THE BARN ON AVERAGE. Our nests, which are quite wide, 5 ft. wide, run down the center and account for 20% of the space in the barn. Therefore most of our barns have the floor space divided as follows: 40% scratch area, 20% nests, and 40% slatted floors (benches). I feel the scratch area is important for at least three reasons. First it gives the bird a place to nap which is a favorite activity. Secondly, they use the dry and pulverized litter to dust themselves. Dusting is a way chickens can protect itself from mites. Thirdly, I have a theory that many pathogens can collect in the litter and serve as a constant challenge to the immune system. Therefore the scratch area protects the hen. I have not seen any literature on the subject since no drug company would fund such research. Nevertheless, we have not had an outbreak of any disease in 15 years. Our mortality is about 4% for 50 weeks in the hen house, which is 1/2 to 1/3 of the rate of commercial cage operators. I would not operate an egg operation without a scratch area. I don't think an all slat operation should be used because of the discomfort to the bird and the possible risk of disease.

5.) NEST SPACE: 13.4 SQ IN. PER BIRD. We use Automatic Colony Nests. These are open sided nests where groups of hens can lay at the same time. Since 90% of eggs are laid throughout the first 8 hours, there is a continuous coming and going of hens during these 8 hours. Many birds will use the same space. Our individual nest floors per hen measures 44"x18". Each nest will accommodate 59 hens during the day.

6.) WINDOW AREA: 8.45 SQ IN. OF GLASS PANE PER BIRD ON OLD HOUSES, 16.9 SQ IN. OF GLASS PANE ON NEW HOUSES. The smallest

windows are in the oldest barns and measure 13"x 39". There are 55 of these windows on each side of our 275' long barns. The length of space within the barn is 250'. Total glass pane on both sides measures 55,770 sq. inches. If this total of 55,770 sq.inches is divided by 6,600 hens, the result is 8.45 sq. in per bird. Another ratio is windowpane area to floor space. Dr. Louis M. Hurd¹ recommends a ratio of 1 square foot of glass to 16 to 20 square feet of floor space. The ratio of 20 to 1 would require us to have a total of 10,000 sq. ft / 20 or 500 sq. ft or 72,000 sq. inches. Since we have 55,770 sq. in of pane in the old houses of 10,000 sq. ft, of spaces for birds, we are shy of Dr. Hurd's standard by 22%. However our new barns have 88 windows on each side of the house of 300' long. Each window is 2'6 1/2"x 20 3/4". Glass ratio to floor area occupied by chickens (40x275), is 14.2 on the new barns or within Hurd's recommendation.

7.) RAINFALL & TEMPERATURE: We know from 15 years of experience that good weather for chickens to enjoy outside weather would be 15 May to 15 September- four months. During this period the 5-year average of rainfall is 19.35 inches as recorded only 7 miles away from the farm.

During this 4 month period the 5 year average, rainy days amount to 24.8 days (counting only days when .15 inches or more of rain fall.) If we assume that half the rain fell at night and half during the day there would be only about 12 days of rain during the 4 months. Therefore, rain-free free ranging in good weather would amount to only 4 months less 12 days or about 108 days or 29.6% of the year. If one subtracts high winds and unseasonable cold or hot days, the average for the year might be about only 27% good days for access to the outdoors.

8.) DISEASE: As to the factor of disease in free ranging, Avian Influenza seems to be the main threat. The attached article from the Poultry Time, Jan 10, 2002 mentions the 1982-1983 outbreak where 16 million birds died or were gassed causing a \$100 million loss. If AI were discovered on our farm, all of our birds would have to be killed. Other wild birds are also a threat as indicated by Pg. 10&11 "Diseases of Poultry", the bible of the industry regarding Avian health. We attach a copy of this reference. It mentions the danger of pigeons. We have so many pigeons we often call the local police to help rid us of this menace. We enclose 9 pages of technical which mentions waterfowl (canada geese) as a serious danger to domestic fowl.

9.) COMPETITION: You also requested a list of our competitors with telephone numbers. These are the ones presently sold in New England:

1.) PETE&GERRY	Monroe, NH	603-638-4207
2.) EGGLAND'S	King of Prussia, PA	800-922-3447
3.) SAUDER'S	Lititz, PA	717-626-2074
4.) EGG INOVATIONS	Port Washington, WI	800-337-1951

¹ Practical Poultry Farming by Louis M. Hurd, 1939, MacMillan Company p. 56

5.) GOLD CIRCLE FARMS Boulder, CO
6.) ORGANIC VALLEY LaFarge, WI

303-381-8100
608-625-2602

9.) ACCESS TO THE OUTDOORS: I admire Mark Keating "Draft Recommendation ACCESS TO THE OUTDOORS FOR POULTRY NOSB LIVESTOCK COMMITTEE." I think it is balanced, fair and a laudable goal to achieve. But we are hemmed in on all sides, like a park in a big city. Our closest neighbors are only 300 feet from the nearest building. There is no open land on our borders. In addition we have a new two story building-typical of old poultry barns in the Northeast where land prices are high and winters are cold. Poultry elevators or escalators have yet to be built. Perhaps the greatest difficulty for free ranging is the very present and real threat to Boston's water supply. As to the threat of disease to the chickens, Avian Influenza seems to be the main threat. Any outside area should probably be totally enclosed. The only solution that I can envision for us is to build enclosed sun porches or concrete pads at either end of our buildings. These could only be 10 to 12 feet long due to space requirements. But such a compromise makes a mockery of the principle of free range where 100 hens per acre was the accepted standard (see our letter of Jan 23, 2002 "A Chicken Is Not A Cow") Any outside area would have to be wire enclosed like an aviary at a zoo to protect against the threat of AI from Canada geese. Other wild birds are a definite threat as is mentioned in the bible of poultry health, "Disease of Poultry." Please see the attached excerpt.

SUMMARY

I believe the most important standards for Organic Poultry should apply to their life inside the barn. That is where the hens will spend most of their life-especially when one considers the night and the fact that layers lay most of their eggs in the morning. Laying hens cannot be let out in the morning since all their eggs would end up on the ground.

The most important limits for organic laying hens in the barn are floor space per bird, space at the trough per bird, window panes per bird, space in the nest per bird, and space at the waterers per bird. I think for the sake of clarity and government regulations and control, specific finite numbers should be established for each of these critical factors. The industry wants a level playing field. I have not given you any standards for pullet growing, but I would be pleased to do so since I think this is an extremely important activity in our business.

We maintain that only 27% of the year is the weather suitable for outdoor access. Then consider that 12:00 to 5:00 p.m. is the only practical time to keep the bird outside since the birds lay in the morning and workers want to leave at 5:00 p.m. The actual time of day spent outside would be 5 hours. Five hours is 21% of a complete day. Of the 27% of full days available for free ranging, only

21% is available or about 6% of the full year would be practical in this part of the world.

Disease is a real threat especially AI. We have been very fortunate not to have any diseases in 15 years.

While access to the outdoors is feasible for other livestock, our conclusion is that it is not practical for The Country Hen.

We are open to further discussions and would like to meet with you at your earliest convenience.

Sincerely

George S. Bass

Enclosure: 1.) Picture of farm
 2.) Summary of Space & Light Standards
 3.) Rainfall- 15 May-15 Sept-5 years- Barre
 4.) AI in PA article
 5.) Wild Birds- Diseases of Poultry
 6.) Influenza- B.C. Easterday ET AL-4 pgs.
 7.) Avian Influenza- VET Pathobiology-5 pgs.

WILD BIRDS
FROM
“DISEASES OF POULTRY”
TENTH EDITION
IOWA STATE UNIVERSITY PRESS
PG 10-11

Wild birds are capable of carrying a variety of diseases and parasites. Some cause illness in the wild birds themselves; for others, the birds act as mechanical carriers. Every effort should be made to prevent their nesting in the poultry area. Imported zoological specimens destined for zoos are not a direct contact threat because the zoos are located in cities, but they should be considered as a potential source of introduction of an exotic disease or parasite. Exotic ornamental pet birds constitute a real hazard because they become widely dispersed and may be purchased by poultry workers. On numerous occasions, exotic birds in or destined for pet stores have been found infected with a virulent exotic form of Newcastle disease virus, which in at least one instance was the source of a serious and costly outbreak in poultry. Stringent entry quarantine requirements to apprehend and destroy infected birds provide a good barrier against introduction and dissemination by carrier birds, but failures can occur (illegal smuggling), and producers should be wary of such personal pets. Domestic pigeons can also be a source of dangerous strains of Newcastle disease virus.