

Testimony in support of Senate Bill 405

R. Scott Beyer, Ph.D.

Associate Professor, State Extension Poultry Specialist

Kansas State University

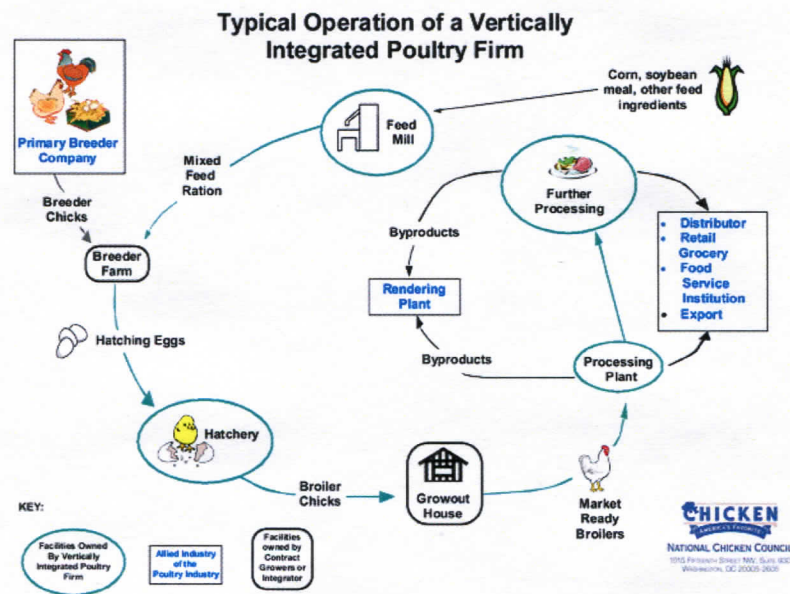
February 12, 2018

It is a pleasure to receive an invitation to testify in front of the Kansas Senate Agriculture and Natural Resources committee to provide educational information about issues related to the commercial poultry industry. My name is Scott Beyer and I currently serve as the State Poultry Specialist for the Kansas State University Extension Service, Department of Animal Sciences and Industry. I am here to testify on behalf of SB 405. There have been recent inquiries from various food companies desiring to expand broiler production into Kansas to meet consumer demand. At this time, broilers are not grown in Kansas although our state is surrounded by states that produce a variety of poultry products. Modern poultry production facilities are engineered and controlled automatically for optimum bird health and production.

**Broiler production information.**

- Broilers are meat chickens produced in a vertically integrated system, wherein all aspects of production are constructed within a reasonable distance from one another. Feed manufacturing, hatching, growing, and processing facilities are located near needed resources. The production of hatching eggs and market broilers is conducted by family farms contracted to provide labor and growing facilities to produce the broilers. The feed mill, processing plant, etc., are generally located in a central area while the family farms surround the facility over a wide area (Figure 1, National Chicken Council, <http://www.nationalchickencouncil.org/industry-issues/vertical-integration/>)

Figure 1. Layout of vertically integrated broiler production.

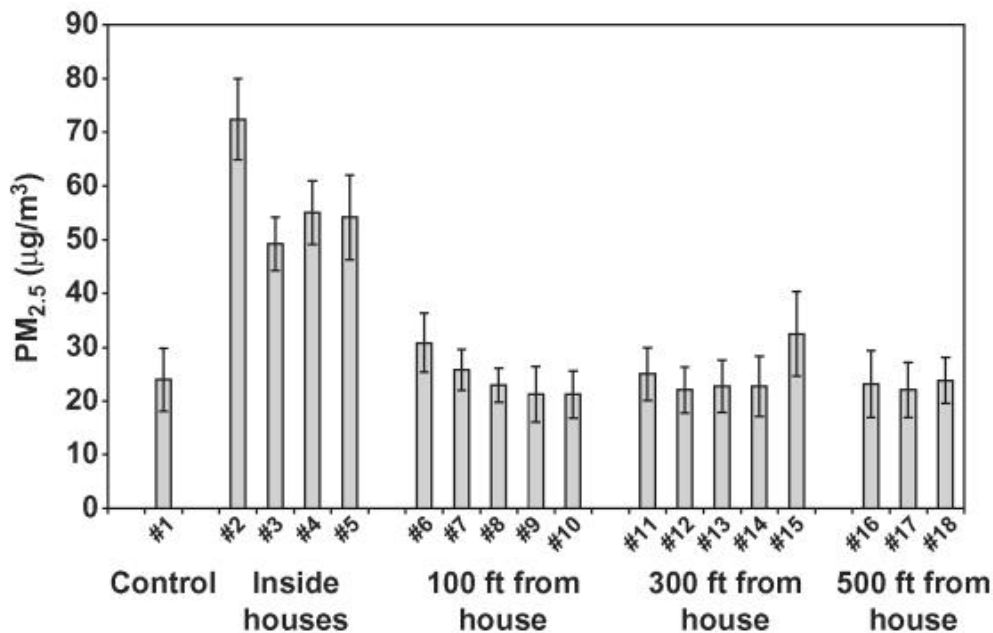


Most family farms that grow broilers do so while maintaining other interests in farming such as forage production, row crops, etc. Work is required part time with some full times days on occasion. Growers rely on engineered structures with a high degree of automation that reduces labor costs, controls the environment, and improves animal welfare.

**Factors important for location of contract farms**

- Broiler houses are long and narrow, with solid sidewalls, and are fully insulated. The solid sidewalls prevent artificial light and noise from escaping.
- No broiler houses have lagoons, but instead rely on floor litter to absorb moisture and disperse excreta from the birds. Without lagoons, the most offensive odor of hydrogen sulfide will not be present around a broiler house.
- The new generation houses are equipped with evaporative coolers on one end, with exhaust fans placed at the other. This creates airflow essential for keeping the birds comfortable while also maintaining a good environment.
- The litter moisture level is monitored and the goal is to maintain moisture at about 20%. If the litter moisture is too high, odors and gases may develop. If the moisture is too low, dust could be generated by the birds. Because gases and dust are detrimental to bird welfare and growth, the family farms have a strong incentive to maintain a proper environment.
- Particulate matter has been monitored in university tests and has been shown to be virtually eliminated by 100’ from the exhaust fans, and meets background levels by 500’ (Figure 2, ref: Visser, et al, 2006, JAPR Vol 15:394-405).

Figure 2. Comparison of particulate matter (PM) to background levels exhausted from a poultry house up to 500’.



- Ammonia could arise from excessively wet litter, or litter that is improperly stored. Ammonia was monitored in university trials and shown to “decrease rapidly in the first 300 ft downstream from the broiler house” (Ref: JAPR, 2009, Vol 18:630-639).
- The exhaust fans are staged to activate one by one as the daytime or seasonal temperatures increase, with the highest velocity occurring at the heat of the day. Fan noise from the house is best mitigated by orienting fans away from other structures; however, noise with these systems is not generally a major concern.
- With power ventilation, growers are able to exhaust small amounts of gas and dust over a long period of time, preventing episodes of larger releases that could be noticeable and travel longer distances.
- Anecdotal evidence of neighbors and growers co-existing is suggested by the location of new homes, neighborhoods, schools, etc. in close proximity to each other. Although this does not indicate complete harmony at all times, it does show that properly managed family farms will not likely hinder community growth. In Figure 3, a 4-house poultry farm is located near a housing development. Line A indicates a home located about 450’ from the farm, line B is a house with a pool at about 708’, and line C is the proposed distance of 1320 for Kansas.

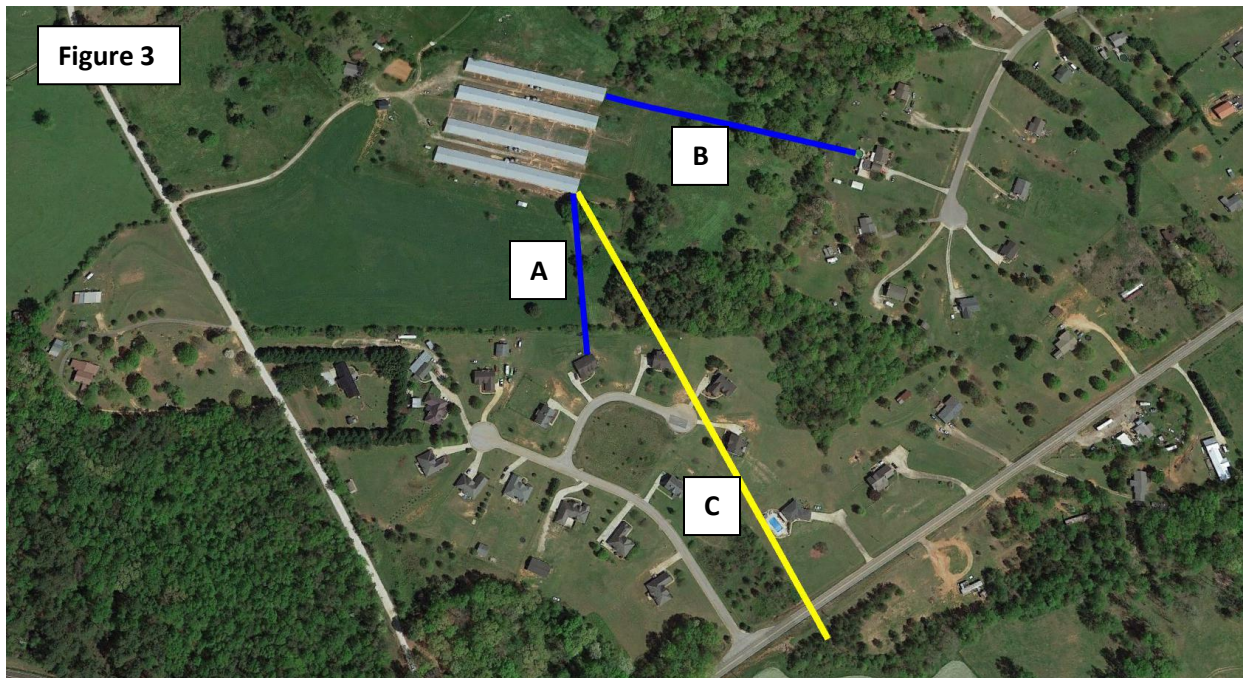




Figure 4 shows a very large poultry complex, existing before the construction of an upscale neighborhood. Line A indicates the nearest house with a pool at about 350' apart.

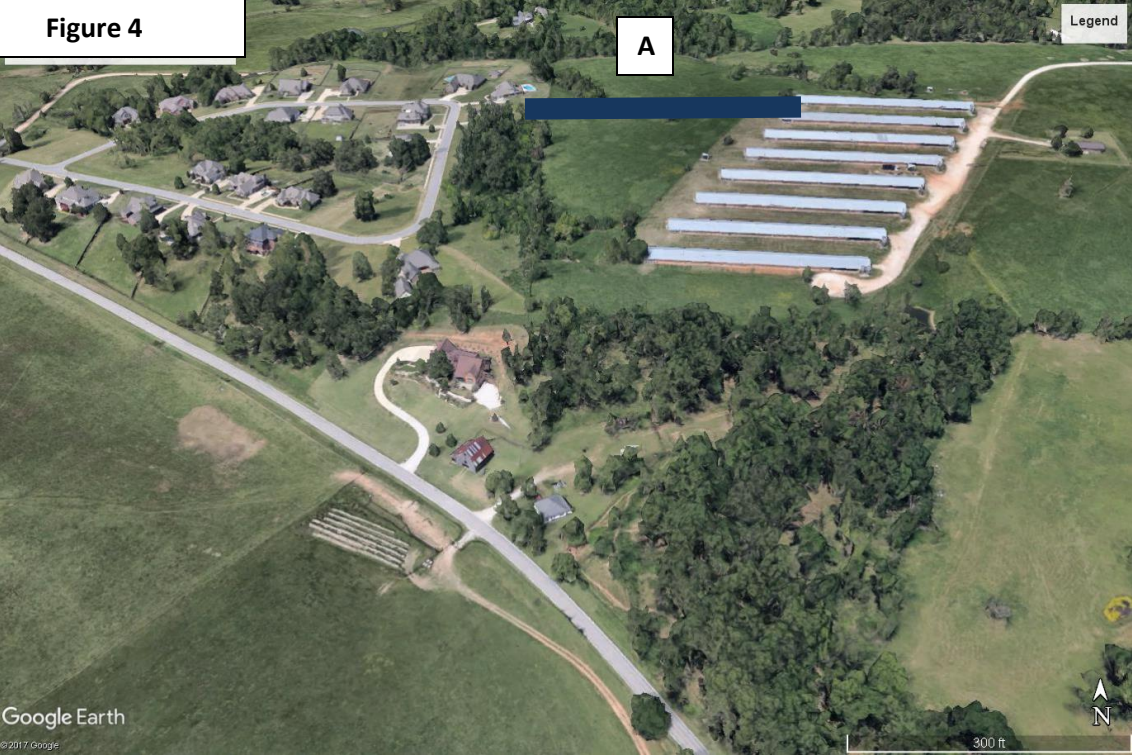
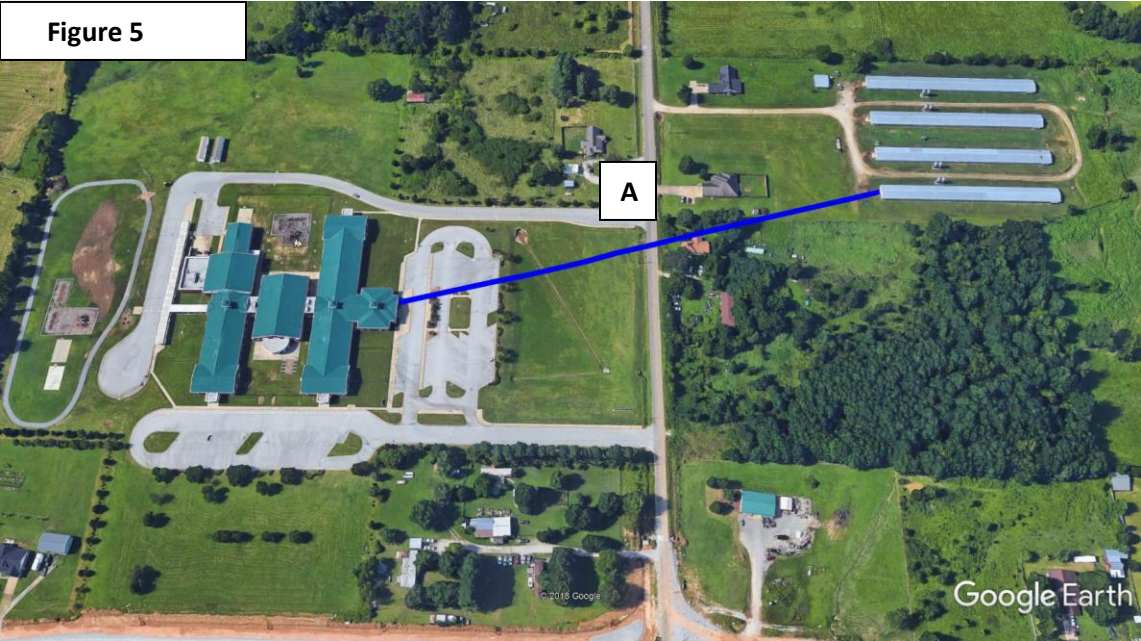


Figure 5 shows an existing poultry complex constructed prior to an apparent elementary school. Line A indicates a distance of about 1000'.



University research, anecdotal data, and personal experience indicate that poultry farms, when well-managed, are unlikely to be as disruptive as they are claimed to be. The proposed setback of 1320' between a broiler house and an occupied dwelling is more than adequate to permit broiler production within the norms expected of noise, dust, and odor mitigation.

Thank you for the opportunity to discuss these issues with you today. I am glad to answer questions at the appropriate time.

Respectfully,

A handwritten signature in cursive script that reads "R. Scott Beyer". The signature is written in black ink and is positioned below the word "Respectfully,".

R. Scott Beyer, PhD  
Associate Professor and Extension Poultry Specialist, Department of Animal Sciences and Industry at Kansas State University