IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OKLAHOMA

STATE OF OKLAHOMA,	)	
	)	
Plaintiff,	)	
	)	
v.	)	**Case No. 05-cv-329-GKF(PJC)**
	)	
TYSON FOODS, INC., et al.,	)	
	)	
Defendants.	)	

DECLARATION OF C. ROBERT TAYLOR

I, C. Robert Taylor, Ph.D., hereby declare as follows:

1. I am the Alfa Eminent Scholar and Professor of Agricultural Economics at Auburn University, Auburn, Alabama. This position is equivalent to the rank of Distinguished University Professor. I hold a B.S. degree in agricultural economics from Oklahoma State University, a M.S. degree in economics and agricultural economics from Kansas State University, and a Ph.D. degree in agricultural economics from the University of Missouri-Columbia. I have held tenured positions at the University of Illinois, Montana State University and Texas A&M University in addition to Auburn University. I served on the Executive Board and Foundation Board of the American Agricultural Economics Association, which is the national association for agricultural economists, from 1998-2001. I have served on the editorial board of four scholarly journals, including the American Journal of Agricultural Economics, which is the premier journal in my profession. I am co-author of one graduate textbook, editor of one book, co-editor of three books, and I have authored about one hundred peer reviewed scholarly articles, plus an additional hundred reports, book chapters and other publications.

2. I have conducted economic analyses for the United States Department of Agriculture, the United States Environmental Protection Agency, the United States Department of Energy, the National Science Foundation, the Natural Resources Economics Service, the United States Army Corps of Engineers, the United States Forest Service, the American Farm Bureau Research Foundation, Ciba-Geigy Company, the United States Congressional Office of Technology Assessment, the National Crop Insurance Service, various state agencies, and state agricultural organizations. I have also given "briefings" on price, income and consumer effects of pesticide policy to the United States Senate and House Agriculture Committees, to the United States Environmental Protection Agency, to a national agricultural industry group, and to the Chief Economist of the United States Department of Agriculture.

3. I testified to the United States Senate Committee on Agriculture, Nutrition and Forestry in a session on Economic Concentration in Agribusiness in 1999, and I provided

Exhibit 49

testimony for the United States House Agricultural Committee Hearings on Livestock Prices. I also testified to the United States Senate Committee on Agriculture, Nutrition and Forestry in 2002 in a session on banning packer ownership of cattle and hogs, and on USDA/GIPSA's enforcement of the Packers and Stockyards Act. In April of 2007, I testified to the United States House of Representatives Committee on Agriculture, Subcommittee on Livestock, Dairy and Poultry on key issues affecting the livestock and poultry industries.

4. In 2002, I gave an invited talk to the Oklahoma Senate titled "The Global Food System: Legal Issues from an Economist's Perspective." I also gave a talk in 2002 on "Contract Agriculture: Legal Issues from an Economist's Perspective" at a CLE conference sponsored by the Oklahoma Attorney General's Office and the Oklahoma Bar Association.

5. Early in my professional career, I conducted substantive research on plant nutrients as water pollutants. More recently, I have done extensive work regarding the economics of the livestock and poultry industries, including analyses of market power imbalances.

6. I have been retained by the State of Oklahoma to evaluate the relationship between poultry growers and defendant poultry companies and to assess the economics of the poultry industry, including removal of poultry waste from the Illinois River Watershed (IRW).

7. On May 15, 2008, I submitted my expert report to Defendants.

8. The following text in this Declaration is taken verbatim from my May 15, 2008 expert report, ¶¶ 36-41, 45.

9. Integrators make the decisions about the location of grow-out facilities. Integrator control over location of production facilities is so complete that individuals desiring to become growers who are outside an area defined by an integrator—typically 25-50 miles—are simply not offered the option to become a grower.

10. In my opinion, defendants' desire to minimize feed and bird transportation costs is the economic driving force behind their concentration of growers and thus waste generation in the IRW. A statistical analysis of survey responses by Sambidi, et al, identifies location of the feedmill serving the complex to be the top indicator of location of grow-out facilities, a conclusion based on survey responses by chief executive officers within the broiler industry.[1] Vukina and Leegomonchai state, *"Contract growers are typically located within a short distance from the integrator's processing plant because live birds cannot be hauled long distances. Broiler operations also tend to be*

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[1] P. R. Sambidi, R. W. Harrison, and A. J. Farr, A Conjoint Analysis of Site Selection for the U.S. Broiler Industry: Implications for Louisiana, Louisiana State University Ag Research and Extension Center Bulletin No. 882, August 2004.

concentrated in the proximity of feedmills such that integrator's costs of distributing feed to contract producers are minimized. These characteristics are very important because they restrict the grower's choice of integrators."[2] MacDonald and Korb also point to feed and bird hauling costs, "... *transportation costs (including the mortality risk to chicks and broilers from truck transport) make for local markets in live poultry, greatly reducing the number of potential buyers."*[3]

11. Many integrators even specify a maximum allowable distance between a broiler farm and the feed mill. For example, a Tyson web page, which was recently removed, stated, *"Normally the (grower) farms are required to be within thirty to forty miles of the feedmill in the complex."*[4] Kirk Houtchens, representing Peterson Farms, stated that distance was an important factor in locating growers; he also stated that 50 miles from a feedmill was about the maximum distance for a grower.[5] Defendants' desire to minimize their out-of-pocket feed and bird hauling costs therefore concentrate waste products in a small geographical area. Integrators, not growers, therefore directly determine where waste products are generated in the IRW.

12. Agricultural statistics indicate that feed grain (e.g. corn) and high protein crop (e.g. soybeans) production is practically non-existent in the IRW. Phosphorus contained in the feedstuffs, and that added to poultry feed, thus constitute the major source of phosphorus imported into the IRW.

13. The fact that multiple integrators chose to locate in the same area, particularly the IRW, further concentrates and exacerbates pollution, health and other environmental problems caused by poultry waste. An April 2008 report by the Union of Concerned Scientists states, *"The problems that arise from excessive size and density (e.g. air and water pollution from manure, overuse of antibiotics) are exacerbated by the parallel trend of geographic concentration, whereby CAFOs [confined animal feeding operations] for particular types of livestock have become concentrated in certain parts of the country. For example ... broiler chicken CAFOs in Arkansas and Georgia."*[6] They also state, *"Manure from CAFOs is a major source of water pollution because these operations produce too much manure in too small an area, and this manure is rarely*

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2 T. Vukina and P. Leegomonchai, "Oligopsony Power, Asset Specificity and Hold-Up: Evidence from the Broiler Industry," American Journal of Agricultural Economics, Vol. 88 (December 2006): 1258-1265.

3 James M. MacDonald and Penni Korb, "The Growing Use of Contracts to Govern US Farm Production, Paper presented at the 2006 Annual Conference of the International Society for New Institutional Economics, Boulder, CO, September 23, 2006, p. 12.

4 http://www.tysonfoodsinc.com/corporate/info/growersFAQ.asp downloaded on 8/10/2005.

5 Deposition of Kirk Houtchens, July 26, 2007, 28:18 through 30:18.

6 Doug Gurian-Sherman, CAFOs Uncovered: The Untold Costs of Confined Animal Feeding Operations, Union of Concerned Scientists, April 2008, p. 2.

treated to eliminate potentially harmful components before being applied to crop fields or stored in facilities such as lagoons or pits (EPA 2003)"[7]

14. An integrator's decisions about where to locate a complex and the size of the area in which growout facilities (and thus waste production) is typically based on its out-of-pocket expenses for hauling feed to growout facilities and birds to processing plants. The business model adopted by defendants ignores external (pollution and health) costs associated with poultry waste and thus results in waste generation and land application of waste being concentrated in relatively small geographical areas. Watershed pollution problems in the aggregate are therefore determined not by an individual farmer's growout operations, but by defendant's individual and collective decisions to concentrate poultry production and thus waste generation in relatively small geographic areas. As stated in a University of Arkansas Extension Bulletin, *"The real issue is not the P concentration in runoff from the edge of any one field, but the total P load that is transported to the stream or lake from an entire watershed."*[8]

15. Early grower contracts made no mention of used litter and waste disposal responsibilities. However, since the early 1990s, defendants' contracts typically state that the grower is responsible for meeting all applicable state, federal, and local environmental laws and regulations. Examples of the evolution of defendants' contracts with specific reference to used litter and waste follow.

a. Defendant Cargill's turkey contract in 1981 did not mention responsibility for, or disposal of, used litter and waste, except for the grower's responsibility to dispose of dead birds (CARTP133037 – CARTP133047). Cargill's 1990 contract, however, stated, *"Grower agrees to comply with all applicable state, county, local and federal* ***health*** *laws."* (CARTP135792 – CARTP135796). Cargill's 1993 contract expanded wording in the 1990 contract to state *"Grower aggress to comply with all applicable state, local, and federal laws and requirements, including but not limited to* ***health and environmental*** *regulations."*[9] (CARTP002257 – CARTP002260). Cargill's 2005 contract also required the grower to have an approved Nutrient Management Plan that complied with all applicable federal, state, and local laws and regulations and complied with best management and agronomic practices in the region (CARTP007134 – CARTP007141).

b. Defendant Tyson's 1986 broiler contract did not specifically mention disposal of used litter and waste, or responsibility for disposal of dead birds (TSN54063SOK – TSN54064SOK). However, Tyson's broiler contract for 1999 states *"The Producer shall be responsible for the removal of all dead birds and*

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7 *Ibid.*, p. 42.

8 Mike Daniels, Tommy Daniel and Karl VanDevender, Soil Phosphorus Levels: Concerns and Recommendations, University of Arkansas Division of Agriculture, Cooperative Extension Service, Bulletin FSA1029-500-3-04R, 1999 and 2004.

9 Bold emphasis added.

litter and shall dispose of dead birds and litter in accordance with the law applicable to this location." (TSN54238SOK – TSN54239SOK). Tyson's 2006 broiler contract is more specific, *"Producer will comply with all applicable federal, state, and local statutes, rules, regulations, and ordinances in performance of this Contract, including but not limited to all those governing environmental and poultry litter management."* (TSN107938SOK – TSN107939SOK).

c. Defendant George's' 1987 pullet growing contract did not mention responsibility for disposal or ownership of used litter and waste (GE312 GE315), while their 1993 contract states that the grower will *"Dispose of litter in accordance with Best Management Practices, a copy of which has been provided,*[10] *and to work with Soil Conservation Service in developing a Nutrient Management Plan for his farm, and to follow all regulations pertaining to litter disposal."* (GE241 – GE246). George's' 1997 pullet growing contract has the same wording about litter disposal as the 1993 contract (GE817 – GE822), but has an attachment that gives detailed guidelines for poultry waste management. This attachment (GE823) states that it was *"compiled by Cooperative Committee for Poultry Farm Litter and Waste Disposal, comprised of members of the Arkansas Poultry Federation, Soil Conservation Service, Arkansas Department of Pollution Control and Ecology, Arkansas Extension Service, and Arkansas Soil & Water Conservation Service."* George's' broiler contracts show a similar evolution of assignment of responsibility for used litter and waste to the grower.

d. Defendant Simmons' broiler contracts for 1979 and 1986 make no mention of responsibility for disposal or ownership of used litter and waste (SIM AG 13722 –SIM AG13724, SIM AG 30790 – SIM AG 30793). However, their 1995 broiler contract states that the grower agrees *"To follow the Federal Insecticide, Fungicide and Rodenticide Act, as well as appropriate FDA, USDA, and EPA regulations."* (SIM AG 12633 – SIM AG 12635). The 1997 contract added the requirement that the grower *"dispose of litter in accordance with Best Management Practices as detailed by the nutrient management plan for Grower's farm developed with appropriate governmental agencies, and to follow all applicable regulations pertaining to litter disposal."* (SIM AG 12388).

e. Defendant Peterson's 2004 broiler contract, like recent Simmons' contracts, states that the Grower agrees, *"To follow Federal Insecticide, Fungicide and Rodenticide Act of 1947, as well as appropriate FDA, USDA, State, and EPA regulations."* (PFIRWP-000835 –PFIRWP-000844). The contract also requires the grower to have and follow a litter management plan, and to provide Peterson with a copy of that plan. Unlike contracts used by other defendants, the 1999 Peterson contract states, *"All poultry waste produced by the birds covered by this contract shall be the exclusive property of the Contract Farmer and the Contract Farmer shall be responsible for and receive all of the*

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10 Such a copy was not attached to the 1993 contract I reviewed.

economic benefits from the use and disposal of said waste." (PFIRWP-0747060 – PFIRWP-0747062). Peterson's 2004 broiler contract has essentially the same wording, *"... the litter shall be the exclusive property of the contract grower and contract grower shall be responsible for and receive all of the economic benefits from the use and disposal of said litter."* (PFIRWP-000838). Peterson's 2005 broiler contract (PFIRWP-000819 – PFIRWP-000829) states that the litter is the exclusive property of the grower, but then goes on to specify exactly how the grower is to dispose of litter and waste he/she presumably owns. Waste disposal practices in Peterson's contract (PFIRWP-000826) are those developed by the Cooperative Committee for Poultry Farm Litter and Waste Disposal, which are also included in George's recent contracts (e.g. GE823).

f. Defendant Peterson's 1997 Breeder Hen contract makes no mention of responsibility for waste generated by defendant's birds, although it does require the grower to dispose of all dead birds. Defendant Peterson's 2004 Pullet contract requires a litter management plan as required by Peterson Farms **or** federal, state or local law. Unlike contracts used by other defendants, this Peterson contract states, *"all poultry waste produced by the birds covered by this Agreement shall be the exclusive property of the contract farmer and the contract farmer shall be responsible for and receive all of the economic benefits from the use and disposal of said waste."* (PFIRWE0012498 – PFIRWE0012503).

g. The 2003 Cal-Maine Breeder Pullet Brooding and Rearing Agreement does not explicitly mention responsibility for used litter and waste, although it states that the grower must *"... comply with all applicable sta[t]e, local, and federal health laws. In the event that grower shall fail to comply with an[y] provision of the applicable laws, then owner is hereby granted and shall have the right to enter upon the grower's premises and correct and perform such necessary acts so as to comply with said laws or regulations and the expenses incurred thereto shall be charged to the grower."* (CM-001366 – CM-001368).

h. A 1991 Cal-Maine Egg Production Agreement states that the grower agrees *"To provide all clean up, according to Owner's specifications; and to comply with accepted practices of waste and dead bird disposal. ... To comply with all applicable state, county, local and federal laws; in the event that grower shall fail to comply with any provision of the applicable laws, then owner is hereby granted and shall have the right to enter upon the grower's premises ... and correct and perform such necessary acts so as to comply with said laws or regulations and the expenses incurred thereto shall be charged to the Producer."* (CM-000000338 -- CM-000000343). In contrast, a 1992 Cal-Maine Egg Production Agreement states that *"Producer agrees to be responsible for the proper clean up of Producer's facilities in accordance with generally accepted poultry husbandry practices and to comply with all applicable laws and regulations, including, but not limited to, rules and regulations promulgated by the Environmental Protection Agency and the agency of Producer's state responsible for disposal of waste and emissions, relative to the disposal of any*

and all waste products produced from Producer's facilities including, but not limited to, waste water run-off, manure and dead birds." (CM-000000332 – CM-000000333).

i. Cobb-Vantress Breeder Hen contract for 2001 requires the grower *"To clean litter from houses upon completion of bird cycle."* This contract also states *"The Producer agrees to provide poultry disposal equipment and to dispose of all dead birds according to the company's specifications and as required by federal, state and local laws."* Although this contract requires the grower to provide "poultry" disposal equipment, it does not specifically mention responsibility for disposal of waste. (TSN60299SOK -- TSN60302SOK). In contrast, the 2003 Cobb-Vantress Breeder Hen contract states, *"The Producer shall be responsible for removing all dead birds and litter and shall dispose of such in accordance with the Company's specifications and applicable laws. ... The Producer agrees to remove all litter and debris from the poultry houses as soon as possible after the completion of the bird cycle."* (TSN60289SOK -- TSN60294SOK). The 2005 Cobb-Vantress Breeder Hen contract adds to the wording in the 2003 contract that *"The Producer agrees to comply with all applicable federal, state, and local statutes, rules, regulations, and ordinances in performance of this contract, including but not limited to all those governing environmental and poultry litter management."* (TSN60277SOK -- TSN60281SOK).

I declare, under penalty of perjury, under the laws of the United States of America, that the foregoing is true and correct.

Executed on the 14th day of May, 2009.

C. Robert Taylor, Ph.D.