



## PEW COMMISSION ON INDUSTRIAL FARM ANIMAL PRODUCTION

### MEDIA CONTACT:

Ralph Loglisci: (202) 223-2996 [rloglisci@pcifap.org](mailto:rloglisci@pcifap.org)

or

Jamie Shor: (202) 628-7772 [jshor@venturecommunications.com](mailto:jshor@venturecommunications.com)

### *Pew Commission Says Industrial Scale Farm Animal Production Poses “Unacceptable” Risks to Public Health, Environment*

(Washington, DC – April 29, 2008) The current industrial farm animal production (IFAP) system often poses unacceptable risks to public health, the environment and the welfare of the animals themselves, according to an extensive 2½-year examination conducted by the Pew Commission on Industrial Farm Animal Production (PCIFAP), in a study released today.

Commissioners have determined that the negative effects of the IFAP system are too great and the scientific evidence is too strong to ignore. Significant changes must be implemented and must start now. And while some areas of animal agriculture have recognized these threats and have taken action, it is clear that the industry has a long way to go.

#### **Public Health**

Over the past five decades, the number of farms producing animals for food has fallen dramatically, yet the number of food animals produced has remained roughly constant. It is the concentration of farm animals in larger and larger numbers in close proximity to one another, along with the potential of IFAP facilities to affect people, that give rise to many of the public health concerns that are attributed to IFAP. Animals in such close confinement, along with some of the feed and animal management methods employed in the system, increase pathogen risks and magnify opportunities for transmission from animals to humans. This increased risk is due to at least three factors: prolonged worker contact with animals, increased pathogen transmission within a herd or flock, and the increased opportunities for the generation of antimicrobial resistant bacteria (due to imprudent antimicrobial use) or new strains of viruses. Stresses induced by confinement may also increase the likelihood of infection and illness in animal populations.

Communities near IFAP facilities are subject to air emissions that can significantly affect certain segments of the population. Those most vulnerable—children, the elderly, and individuals with chronic or acute pulmonary or heart disorders—are at particular risk. The impacts on the health of those living near IFAP facilities have increasingly been the subject of epidemiological research. Adverse community health effects from exposure to IFAP air emissions fall into two categories: (1) respiratory symptoms, disease and impaired function, and (2) neurobehavioral symptoms and impaired function.

#### **Environment**

As with public health impacts, much of IFAP’s environmental impact stems from the tremendous quantities of animal waste that are concentrated on IFAP premises. Animal waste in such volumes may exceed the capacity of the landscape to absorb the nutrients and neutralize pathogens. Thus, what should be a valuable byproduct (e.g., fertilizer) becomes a waste that must be disposed of.

According to the EPA, the annual production of manure produced by animal confinement facilities exceeds that produced by humans by at least three times. Unlike most human sewage, the majority of IFAP is spread on the ground untreated. Manure in such large quantities carries excess nutrients and farm chemicals that find their way into waterways, lakes, groundwater, soils and airways. Excess and inappropriate land application of untreated animal waste on cropland contributes to excessive nutrient loading and, ultimately, eutrophication of surface waters. Eutrophication is an excess of nutrients in a body of water, mostly nitrates and phosphates from erosion and runoff of surrounding lands, that causes a dense growth of plant life and the death of aquatic animal life due to lack of oxygen.

IFAP runoff also carries antibiotics and hormones, pesticides, and heavy metals. Antibiotics are used to prevent and treat bacterial infections and as growth promoters. Pesticides are used to control insect infestations and fungal growth. Heavy metals, especially zinc and copper, are added as micronutrients to the animal diet.

According to a 2006 UN report, globally, greenhouse gas emissions from all livestock operations account for 18% of all anthropogenic greenhouse gas emissions, exceeding those from the transportation sector. IFAP can produce greenhouse gases such as methane and carbon dioxide. Other greenhouse gases, primarily nitrous oxide, arise mainly from the microbial degradation of manure.

Air quality degradation is also a problem in and around IFAP facilities because of the localized release of significant quantities of toxic gases, odorous substances, and particulates and bioaerosols that contain a variety of microorganisms including human pathogens. Some of the most objectionable compounds are the organic acids, which include acetic acid, butyric acids, valeric acids, caproic acids, and propanoic acid; sulfur containing compounds such as hydrogen sulfide and dimethyl sulfide; and nitrogen-containing compounds including ammonia, methyl amines, methyl pyrazines, skatoles and indoles.

It is also recognized that ammonia emissions from livestock contribute significantly to the eutrophication and acidification of soil and water. Some level of nutrient overload occurs naturally, but this process can be accelerated by human activities. Acidification can put stress on species diversity in the natural environment.

### **Animal Welfare**

IFAP methods for raising food animals have generated concern and debate over just what constitutes a reasonable life for animals and what kind of quality of life we owe the animals in our care. It is an ethical dilemma that transcends objective scientific measures, and incorporates value-based concerns. Physical health as measured by absence of some diseases or predation, for example, may be enhanced through confinement since the animals may not be exposed to certain infectious agents or sources of injury that would be encountered if the animals were raised outside of confinement. It is clear, however, that good animal welfare can no longer be assumed based only on the absence of disease or productivity outcomes. Intensive confinement (e.g. gestation crates for swine, battery cages for laying hens) often so severely restricts movement and natural behaviors, such as the ability to walk or lie on natural materials, having enough floor space to move with some freedom, and rooting for pigs, that it increases the likelihood that the animals suffer severe distress.

Good animal welfare can also help to protect the safety of our nation's food supply. Scientists have long recognized that food safety is linked to the health of the animals that produce the meat, dairy, and egg products that we eat. In fact, scientists have found modern intensive confinement production systems can be stressful for food animals, and that stress can increase pathogen shedding in animals.

### **Rural America**

Life in rural America has long been challenged by persistent poverty. The causes are many, but among them is the lack of economic diversity in rural economies. Workers have few options in the event of a plant closure or other dislocation, and unemployment rates are high. Consequently, IFAP is frequently considered an attractive new source of economic opportunity by local economic development officials, but with this transition comes significant change including public health threats.

The industrialization of American agriculture has transformed the character of agriculture itself and, in so doing, the face of rural America. The family-owned farm producing a diverse mix of crops and food animals is largely gone as an economic entity, replaced by ever-larger operations producing just one animal species, or growing just one crop, and many rural communities have fared poorly.

As the food animal industry shifted to a system of captive supply transactions controlled by production contracts, economic power shifted from farmers to livestock processors or so-called integrators. Farmers relinquished their once autonomous, animal husbandry decision-making authority in exchange for contracts that provide assured payment, but require substantial capital investment. Once the commitment is made to such capital investment, many farmers have no choice but to continue to produce until the loan is paid off. Such contracts make it nearly impossible for there to be open and competitive markets for most hog and poultry

producers, who must enter into contracts with the integrators (meat packing companies) if they are to sell their production.

Although the proponents of the industrialization of animal agriculture point to the increased economic efficiency of IFAP operations, the Commission is concerned that the benefits may not accrue in the same way to affected rural communities. In fact, industrialization leading to corporate ownership actually draws investment and wealth from the communities in which specific IFAP facilities are located.

The Commission's recommendations focus on appropriate siting of IFAP facilities in order to prevent further degradation of air, water, and soils and to minimize the impact on adjacent communities.

Below are the Commission's key recommendations.

1. Ban the non-therapeutic use of antimicrobials in food animal production to reduce the risk of antimicrobial resistance to medically important antibiotics and other microbials.
2. Implement a disease monitoring program for food animals to allow 48-hour trace-back of those animals through aspects of their production, in a fully integrated and robust national database.
3. Treat IFAP as an industrial operation and implement a new system to deal with farm waste to replace the inflexible and broken system that exists today, to protect Americans from the adverse environmental and human health hazards of improperly handled IFAP waste.
4. Phase out the most intensive and inhumane production practices within a decade to reduce the risk of IFAP to public health and improve animal wellbeing (i.e., gestation crates and battery cages).
5. Federal and state laws need to be amended and enforced to provide a level playing field for producers when entering contracts with integrators.
6. Increase funding for, expand and reform, animal agriculture research.

"The goal of this Commission is to sound the alarms that significant change is urgently needed in industrial farm animal production," says John Carlin, PCIFAP Chairman and former Kansas governor. "I believe that the IFAP system was first developed simply to help increase farmer productivity and that the negative effects were never intended. Regardless, the consequences are real and serious and must be addressed."

Our energy, water and climate resources are undergoing dramatic changes that, in the judgment of the Commissioners, will require agriculture to transition to much more biologically diverse systems, organized into biological interactions that exchange energy, improve soil quality, and conserve water and other resources. "Long-term success will depend on the nation's ability to transform from an industrial economy that depends on quickly diminishing resources to one that is more sustainable, employing renewable resources and understanding of how all food production affects public health and the environment," says Michael Blackwell, PCIFAP Vice Chair and former dean of the University of Tennessee College of Veterinary Medicine and former Assistant Surgeon General, (Ret.) USPHS.

The PCIFAP consists of 15 Commissioners who bring individual knowledge and expertise in diverse fields, including public policy, veterinary medicine, public health, agriculture, animal welfare, the food industry and rural society. The Commission assessed the current state of industrial animal agriculture based on site visits to production facilities across the country; consultation with industry stakeholders, public health, medical and agriculture experts; public meetings; peer-reviewed technical reports; staff research; and Commissioners' own expertise. PCIFAP is a project of The Pew Charitable Trusts and the Johns Hopkins Bloomberg School of Public Health.

For a copy of the final report visit [www.pcifap.org](http://www.pcifap.org).