"Improve the economic well-being of agriculture and enrich the quality of farm family life."

Let's Talk About: *Eggs*

American consumers may purchase whatever type of eggs they prefer; "regular" (modern, sanitary cage housing systems), cage-free (no access to outdoors), or free range (some access to outdoors). Eggs are among the lowest cost sources of high-quality protein – an ideal meal solution for low-income Americans.[i]

Animal rights groups are seeking to legislate that all eggs produced in America be "cage-free". Traditional cages are banned in California and will be in Michigan starting October 12, 2019.[ii] Animal Activists are pushing for equivalent bans in other states. Germany and other European countries have similar bans.

Approximately 7% eggs consumed in the U.S. are from cage free or free range housing; representing 3% increase in cage-free production in the past five years.[iii] However, the USDA Food Safety and Inspection Service has no requirements in place for labeling eggs as "cage-free", and stipulates that for eggs to be labeled "free range" or "free roaming", Farmers "must demonstrate to the Agency that the poultry has been allowed access to the outside."[iv] No standards are in place for auditing the chickens' housing or dietary conditions.

Animal activist groups, restaurants, and food marketing firms pushing cage-free or free-range egg options are doing so without regard for animal care, health, or consumer interest. Consumers should be fully informed of the impact of such options and learn more about the three modern housing systems. This paper provides additional information on those options and their impacts.

Illinois Farm Bureau Policy

The Illinois Farm Bureau ("IFB") supports "the care of livestock through accepted management practices which will provide for better health and safety for the livestock while maintaining acceptable production levels." The Illinois Farm Bureau also opposes "federal, state or local legislation and regulations that are promoted in the name of "humane" treatment in situations where science shows those regulations would, in actual practice, adversely affect the health, longevity, or production of livestock and the economic viability of the operation."[v]

Key Issues

Egg Quality and Composition

A study performed by the United States Department of Agriculture ("USDA") Agricultural Research Service ("ARS") comparing egg quality and composition has confirmed that traditionally caged egg production methods were of significantly better interior egg quality (measured in Haugh units) and had

stronger, more elastic vitelline membranes than cage-free eggs. In addition, there are no significant differences between the two production methods for shell thickness, shell strength or composition of the eggs. However, cage free eggs commonly have a higher shell weight.[vi]

Food Safety

"The outside of an egg can get contaminated by salmonella enteritidis by contact with feces and dirt. The bacteria can spread to the hens through contaminated feed or water, from chicken-to-chicken and via wildlife vectors such as wild birds and rodents. Neither conventional, cage-free nor free-range farms are immune to these possible modes of spread. Furthermore, an intriguing and dangerous characteristic of the salmonella enteritidis strain is that it can also travel to the chicken's reproductive tract and infect the inside of the egg."[vii] Additionally, aviary systems had higher levels of *Campylobacter* spp. recovery.[viii]

Hen and Worker Welfare

Physiological measures taken from hens in conventional housing, enriched-cages and aviary systems indicated there was no short-term or long-term stress in any of the systems.[ix] Cage-free housing systems that allow hens to behave naturally (e.g. nest building for laying hens) but may result in more challenges for disease and injury control. Hen mortality was twice as prevalent in cage free, aviary housing as in other housing types.[x] Hens in cage-free systems have a higher chance of internal parasites, mites, bone breakage, reduced cleanliness, poor foot health, cannibalism, mortality, and lower air quality compared with cage systems.

Employees in the aviary house were exposed to higher pollutant concentrations than employees in the other housing systems. Ammonia levels were highest in the aviary housing and dust levels were eight to ten times higher than that of other housing systems.[xi]

Environmental Degradation

Factors such as indoor air quality, ambient lighting, temperature, and ventilation, as well as atmospheric dust emissions, are managed more efficiently in modern environmentally controlled cage systems.[xii] Moreover, non-cage eggs have higher environmental and carbon footprints compared to "regular" eggs.[xiii] Cage-free chickens require 15-15% more feed to produce the same number of eggs as chickens in Modern Sanitary Cage systems.

An additional 7 billion pounds of corn and soybean meal would be needed to feed cage-free chickens, requiring an additional 580,000 acres of cropland to be tilled for farmland, with resulting potential for habitat losses and other increased environmental impacts. US egg farmers also would need to acquire 400% more farmland for their egg-laying operations if Modern Sanitary Cage systems, which are typically tiered up to 40-feet high, are banned.[xiv]

Imports and Food Safety

The U.S. is self-sufficient in supplying eggs for domestic consumption and is a net exporter of eggs. A ban on Modern Sanitary Cage systems in the U.S. would likely result in a dramatic increase in lower cost, imported eggs into the U.S. If just 10% of domestic production and consumption were replaced by imports, this equals about 7 billion eggs, or 25 eggs per person.

Egg imports may come from countries with lower animal welfare standards than U.S. egg farmers follow, and such a surge in imports would seriously strain the ability of the U.S. government to inspect those additional imports for salmonella or other food safety contaminants.

Conversion Costs

Eggs are produced commercially in 49 states. Nearly all commercial egg farms in the U.S. are family-owned farms or farmer co-ops; there is only one publicly traded company. Approximately 95% of egg-laying hens in the U.S. are housed in modern cage facilities. Aviary system egg costs are 36% higher and enriched cage egg costs are 13% higher than the conventional cages.[xv]The cost to farmers of converting their modern hen houses into cage-free facilities is estimated to be $7.5 billion. The availability of credit and local permits could be a major obstacle for many farmers attempting to make the switch.

Consumer Spending

USDA statistics indicate that on average during late May 2015, one dozen grade A “regular” eggs were advertised at retail for $1.46 per dozen compared to $2.51 per dozen for cage-free. Production costs in cage-free systems are higher due to higher capital costs, lower egg production per hen, higher feed costs, increased mortality, and higher labor costs. These higher costs will likely be passed on to consumers.

Government Spending on Food Assistance for the Needy

Significant numbers of eggs are purchased for the school lunch and breakfast program ($47 million annually); Special Supplemental Nutrition Program for Women, Infants and Children (WIC-$100 million); and the Supplemental Nutrition Assistance Program (SNAP-formerly the Food Stamp Program).[xvi] Federal spending on food assistance programs for children and the needy would increase by $169 million annually if the government could only purchase cage-free eggs.[xvii]

In The News: California Egg Production

The changing requirements for egg layer housing are a hot-button issue in the U.S. Under the new law, hens must be able to “stand up, lie down, and turn around freely, and fully extend all limbs without touching the side of an enclosure, including, in the case of egg-laying hens, fully spreading both wings without touching the side of an enclosure or other egg-laying hens.”[xviii]

This conversion is putting a strain on farmers. “The California Shell Egg Safety Rule requires a minimum of 116 square inches per layer to produce eggs compliant for sale in California. [The new system] leads to a higher cost of production than it takes to produce table eggs in the conventional system.”[xix] Added costs at the farm gate means higher egg prices for consumers. In January 2015 California-compliant eggs averaged $2.95 per dozen while Midwestern eggs averaged $1.29 per dozen.[xx]

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