USDA Stalls Regulations to Improve Organic Poultry Living Conditions

AGENCY HIDES BEHIND FAULTY ECONOMIC IMPACT ASSESSMENT

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APRIL 2014

CENTER FOR
FOOD SAFETY

ABOUT US

CENTER FOR FOOD SAFETY (CFS) is a national, non-profit, public interest membership organization founded in 1997 to protect human health and the environment by curbing the use of harmful food production technologies and by promoting organic and other forms of sustainable agriculture. Our membership has rapidly grown to include over a half million people across the country that support organic food and farming, grow organic food, and regularly purchase organic. More information can be found at www.centerforfoodsafety.org.

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The Center for Food Safety works to maintain and enhance strong organic standards that live up to the quality and integrity that consumers expect from organic products through legal actions, policy comments, public testimony to government agencies and Congress, and public education. We strive to evolve the organic ethic by promoting agriculture that is local, small, medium and family-scale, biologically diverse, climate friendly, humane, and socially just. The ultimate goal of our campaign is to move beyond the industrial agriculture model to a new vision and practice of organic farming that supports and sustains the natural world for future generations.

ACKNOWLEDGEMENTS

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INTRODUCTION

Each year in the United States, approximately ten billion animals are raised for food. These animals are sentient, complex beings, capable of feeling pain and discomfort, frustration and contentment.[1] Yet, despite this widespread knowledge that farm animals can experience physical and emotional pain, they are consistently abused and deprived of their most basic needs—enough room to engage in natural behaviors, a natural diet suited to their species, ample water, and an overall healthy environment. When these basic needs are removed from the equation, farm animal rearing can become an inhumane and environmentally destructive practice, akin to industrial animal factories.[2] While organic consumers often purchase organic meat and dairy products to avoid supporting such unscrupulous animal production practices, what they may not know is that the largest organic producers are not following even the minimal animal welfare practices.[3] If the United States Department of Agriculture (USDA) fails to remedy this situation and promulgate timely animal welfare regulations, consumer confidence in organic may suffer. In the organic egg and poultry industry in particular, some larger producers have implemented a sub-par interpretation of the law that many, including Center for Food Safety, would not view as humane animal treatment.

Organic production systems—the gold standard of agriculture—are intended to maintain a high bar for animal welfare. Many organic farmers rear food animals as part of an integrated, biologically diverse food production system. These organic farmers and ranchers care for the well-being of the animals they raise. They believe that animal welfare is an integral part of raising animals for food. Unfortunately, organic animal producers and regulators have not universally adopted this philosophy.

Although the organic community and the general public have pushed for the adoption of strong animal welfare regulations for many years, the National Organic Program (NOP) recently decided not to proceed with their development for the organic poultry industry.[4] Instead, in 2012, USDA commissioned a third-party economic analysis and comparison of the National Organic Standards Board (NOSB or the Board)'s recommended regulatory changes, independent animal welfare standards, and existing regulations. That analysis, *Economic Impact Analysis of Proposed Regulations for Living Conditions for Organic Poultry* (USDA's Economic Analysis), concluded that welfare improvements would adversely impact the largest egg producers to such an extent that they would exit organic production. This gave USDA/NOP pause for concern. Subsequently, in a statement that accompanied NOP's public release of USDA's economic analysis, NOP announced that "[g]iven other urgent priorities at this time, we do not anticipate addressing [NOSB's] proposals on animal welfare in the near future."[5] It is unclear whether or when NOP will pursue regulatory development in this area.

Some organic poultry producers—a mere five out of 586—are holding the entire industry hostage by claiming that increases in animal welfare practices will bankrupt their business. Even though few in number, they have managed to unduly influence the USDA/NOP decision to delay promulgating regulations. This industry pressure has left the organic label in a precarious position because consumers expect that the label signifies both environmentally sound and humane production practices. They believe that this is at the core of what distinguishes organic practices from those of industrial animal factories.[6]

Absent compelling, prohibitive regulations, poultry confinement practices have become common for the largest organic producers. Little do consumers know that unnatural lighting conditions, tight stocking rates, few and small doors leading to the outside, cement porches instead of pasture, and limited-to-no access to the natural environment currently represent the norm.[7] Adhering to these conventional practices in organic production violates the spirit of the organic program and Congress' intent to include strong livestock standards when it passed the Organic Food Production Act (OFPA).[8] Moreover, it contradicts the public's expectations of what it means for organic eggs and poultry to be certified organic.

As this white paper shows, strong animal welfare standards are critical to the success of the organic program. This paper discusses how USDA's economic analysis and the decision to indefinitely delay animal welfare regulations underestimate the value animal welfare brings to the organic industry and label. USDA/NOP's decision misjudges the value organic consumers place on the innate right of food animals to be treated humanely, and it ignores the inherent health benefits of humanely raised food. In response, Center for Food Safety (CFS) critically examines USDA's economic analysis and uncovers its faulty assumptions and unfounded conclusions. We argue that in order to maintain organic integrity, NOP must immediately adopt animal welfare standards based upon NOSB recommendations. This will go a long way to ensuring the viability of the organic brand and label and meeting consumer expectations about organic egg and poultry production. The paper concludes by urging NOP to promote increasingly strong animal welfare regulations, even if that means the largest egg producers may exit organic production. This position is consistent with OFPA's continuous improvement directive, which is intended to maintain and enhance organic integrity.[9]

PART 1: "ANIMAL WELFARE IS A BASIC PRINCIPLE OF ORGANIC PRODUCTION"[10]

American philosopher Bernard Rollin once said, "[i]f animals are going to be raised for food, they must live, in balance, happy lives, or at least live free from pain and

"If animals are going to be raised for food, they must live, in balance, happy lives, or at least live free from pain and suffering." (Bernard Rollin, American philosopher)

suffering."[11] The drafters of OFPA had a similar idea in mind when framing the landmark organic legislation in 1990.[12] At that time, organic livestock production was in its infancy and there was little to no consensus about appropriate livestock standards. Yet there was general agreement that USDA should make the standards strong enough to provide superior welfare to animals.[13] That is why law drafters constructed a limited set of statutory standards which outlined basic conditions for livestock rearing and health. These formed the backbone of existing regulations on livestock living conditions and livestock health.

According to former Deputy Secretary of Agriculture Kathleen Merrigan, one of OFPA's principal drafters:

> When we were framing the legislation in 1989 and 1990, . . . animal health and welfare issues, as nascent as the livestock sector was then, were on peoples' minds. And, we saw that when we developed the livestock sector and more expertise in organic livestock management, that animal health and welfare issues would be part and parcel to all the standards . . . to have a fully operational NOP.[14]

The NOSB concurs with Merrigan. In a 2009 report to USDA/NOP it stated: "Animal welfare is a basic principle of organic production . . . From its conception, regulation in organic agriculture was intended to provide conditions that foster the natural behavior of livestock."[15]

In OFPA, roles were delineated to ensure livestock rearing and health regulations were created and continuously improved upon. While NOSB was tasked with recommending livestock standards, the Secretary of Agriculture (through the NOP) was tasked with drafting regulations and enforcing them when implemented.[16] NOSB and NOP have made progress in some areas of livestock rearing and health such as those regarding access to pasture for ruminant livestock. In June 2001, NOSB's Livestock Committee issued its first formal recommendation to clarify the requirements for access to pasture. NOP published the Final Rule on access to pasture standards for livestock in early 2010, effective in June of that year.[17] In 2002, NOSB published a draft recommendation on standards for origin of livestock, which was altered slightly by NOP in April 2003 but still has yet to be approved. Clearly USDA/NOP must expedite this slow moving process.

When it comes to both animal welfare and specific requirements for poultry, NOP's progress has stagnated. NOSB submitted recommendations to NOP on animal welfare in 2002, 2009, and 2011. At its December 2011 meeting, NOSB added language about appropriate living conditions for poultry (see insert on following page) and

OVERVIEW: NATIONAL ORGANIC STANDARDS BOARD'S FINAL ANIMAL WELFARE RECOMMENDATIONS FOR POULTRY

Animal welfare regulations for poultry are intended to ensure that producers of eggs and chicken facilitate the health, well-being, and natural behavior of the birds in their care. Final National Standards Board (NOSB) recommendations include the following key provisions:

Physical Alterations

- *Permitted:*
  - Beak trimming performed by 10 days of age.
  - Toe trimming performed at the hatchery on the first day of life.
- *Prohibited:*
  - De-beaking, de-snooding, caponization, dubbing, and toe trimming.

Indoor Housing

- Birds must be able to move freely and engage in natural behaviors.
- Perches and flat roosts must be provided to encourage natural behaviors, strengthen bones via exercise, allow for submissive birds to escape, and to reduce aggression and mortality rates.
- Number of perches and roosts must be sufficient to allow all birds to get up off the floor at any given time.
- Indoor space requirement must be met by the interior ground floor perimeter.
- Perching areas and nest boxes may not be used in space calculations.
- Laying hens must have 2 square feet of indoor housing per bird.
- Pullets must have 2-3 pounds per square foot of indoor housing.
- Broilers must have 1-5 pounds per square foot of indoor housing.

Outdoor Access and Stocking Rates

- Outdoor access means direct sunlight provided during daylight hours when temperatures exceed 50°F. Enclosed space with solid roof overhead does not qualify.
- Outdoor areas must encompass 50% vegetative cover.
- Birds must have the opportunity to scratch, dust bathe in soil, turn around, and perform natural behaviors which minimize stress and aggression.
- Pullets (young laying hens) must have outdoor access by 16 weeks and broilers by 4 weeks.
- More than one bird must be able to exit to the outdoors at one time through the space provided.
- Laying hens must have no less than 2 square feet of outdoor access per bird.
- Pullets must have 2-3 pounds per square foot of outdoor acess.
- Broilers must have 2-5 pounds per square foot of outdoor access.
- An Organic System Plan must outline how birds will be encouraged to access the outdoors.

In 2011, the NOSB submitted final recommendations to the USDA/National Organic Program (NOP) to be turned into proposed regulations in a timely manner. However, in this case, USDA/NOP commissioned an economic impact analysis and decided to indefinitely halt the development of final regulations.

sent its recommendation to NOP to convert into regulations. The Board's stated intention was to "create a comprehensive animal welfare program that benefits both livestock and farmers."[18] As regulatory amendments to the current livestock living condition standards, they would clarify requirements for outside access and other heightened living conditions for poultry.[19] Yet in the hands of USDA/NOP, these recommendations have languished for two years and counting.

NOSB's recommendations addressed basic provisions for animal welfare that would elevate the organic practice standard above that of conventional practices. These recommendations raise the bar, eliminating the most painful and unethical livestock practices while still allowing the organic livestock industry to compete in a varied market. Some of the prohibited practices include de-beaking of poultry, tail docking of pigs and cattle, and face branding of cattle—practices used to facilitate confinement agriculture. Specific to laying hens, NOSB recommended that animals have two square feet of living space per bird, access to the outdoors, and that indoor enclosures have room for animals to engage in natural behaviors, perch, and self-isolate. While CFS believes that stronger standards are needed, we support the immediate adoption of NOSB's recommendations in order to facilitate the adoption of basic humane animal rearing practices, across the organic poultry and egg industry.

PRODUCERS AND THE PUBLIC STRONGLY SUPPORT ANIMAL WELFARE RULES

Public concern for the pain and suffering of animals raised for food has been an emerging topic of research in the published literature for over thirty years.[20] In fact, Congress received more letters, faxes, telephone calls, and other comments regarding animal welfare, between 1980 and 1995, than any other issue.[21] In a 2008 Humane Research Council survey, "a large majority (73%) supported a law requiring that farm animals, including pigs, cows and chickens, are provided with enough space to behave naturally."[22] Despite the public's clear desire for improved animal living conditions,[23] government regulators often ignore public opinion when making regulatory decisions.

Concern over food animal well-being continues to grow in the United States. In 2007, a telephone survey of over 1,000 Americans found that nearly one third of the respondents strongly consider the well-being of farm animals when making purchasing decisions.[24] Roughly half of those surveyed factor animal welfare into their purchasing decisions to some degree.[25] That same survey found that over two-thirds of those surveyed feel the government should take an active role in promoting farm animal welfare.[26] Six years later, an American Humane Association survey revealed that nearly ninety percent of the 2,600 participants were concerned about farm an-

imal welfare.[27] In that same 2013 survey, seventy-four percent of participants were willing to spend more for meat, dairy, and eggs that were labeled humanely-raised. Thirty-four percent were willing to pay as much as twenty percent more for products labeled "humanely-raised."[28] Clearly, the American consumer views farm animal welfare as an important aspect of their food choices.

Animal Welfare Values Involve Ethics, Not Just Economics

For those who choose to purchase organic products, cruel and unnatural treatment is simply not consistent with the term "organic."

For those who choose to purchase organic products, "cruel and unnatural treatment" is simply not "consistent with the term 'organic.'"[29] Some people believe that animals have rights and, therefore, should be treated humanely or not used for food production at all. Others believe that humans have an ethical or moral responsibility to treat animals humanely, regardless of their economic value.[30] Either way, as NOSB acknowledges, "it is important to consider the social and ethical implications . . . with regard to animal welfare" in organic production.[31] As such, improvements in animal welfare cannot be based solely upon an economic assessment, as USDA's analysis suggests.[32] USDA must factor the ethical treatment of animals and consumer desires into decisions regarding organic regulations as well.

Even though USDA's economic analysis of organic poultry ignores the ethical lens that organic consumers wear when purchasing animal products, NOSB members have not overlooked this issue. Many are keenly aware of how organic producers and the public feel about animal welfare. In 2007, NOSB member and retail representative from the National Cooperative Grocers Association, Bea James, stated that: "Consumers have an assumption that [many of these animal welfare standards] are already in place . . . it is the duty of the NOSB to try and bring to the forefront . . . health and welfare standards because . . . so many consumers want to believe that they are eating things that are coming from the natural state of their environment."[33] At the same meeting, Margaret Wittenberg, Global Vice President of Whole Foods Market and former NOSB member testified that "[p]roducers rank animal healthcare as their highest priority. . . ."[34] While NOSB and NOP know that animal welfare practices factor into organic consumer purchasing decisions, USDA's economic analysis failed to adequately take these important factors into account.

Organic consumers possess certain expectations about organic food quality, for which they pay a premium price. At a USDA hearing on the initial regulations, one testifier summed up the feelings of many this way: "[I]t would be an abomination to allow meat products from animals raised in confinement to be sold as organic. Consumers of organic meats purchase these in large part as a result of knowing that the animals have been humanely raised."[35] As this testimony demonstrates, consumers purchase organically raised animals and animal products with heightened expectations about both the treatment of animals and their living conditions. One of the driving

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forces behind purchasing organically raised meat, poultry, and dairy, for example, is the perception that organic farmers pay exceedingly more attention to how animals are treated than their industrially produced (animal factory) counterparts. Reasons for this vary. In 2013, CFS conducted a survey to determine what factors influence organic consumers' purchasing decisions for organic poultry products. The survey found that organic consumers are concerned about their own health, the health of farm workers, the health and welfare of the animals, and the health of the environment. Of the 17,396 people surveyed who purchase organic eggs, more than seventy percent listed humane and natural conditions—outdoor space and ability to engage in natural behaviors—as among the top five reasons they choose organic.[36]

People who feel an ethical responsibility for food animals to be treated humanely express their preferences in the marketplace and choose labels, such as organic, to meet their expectations.[37] As the industry-proclaimed gold standard for meat and dairy production, people rightly expect that organically-reared animals are well-fed, healthy, have access to the outdoors, and are raised in an environment that allows them to engage in their natural scratching, pecking, rooting, and other behaviors.

People Choose Higher-Welfare Animals Because They Want Healthier Food

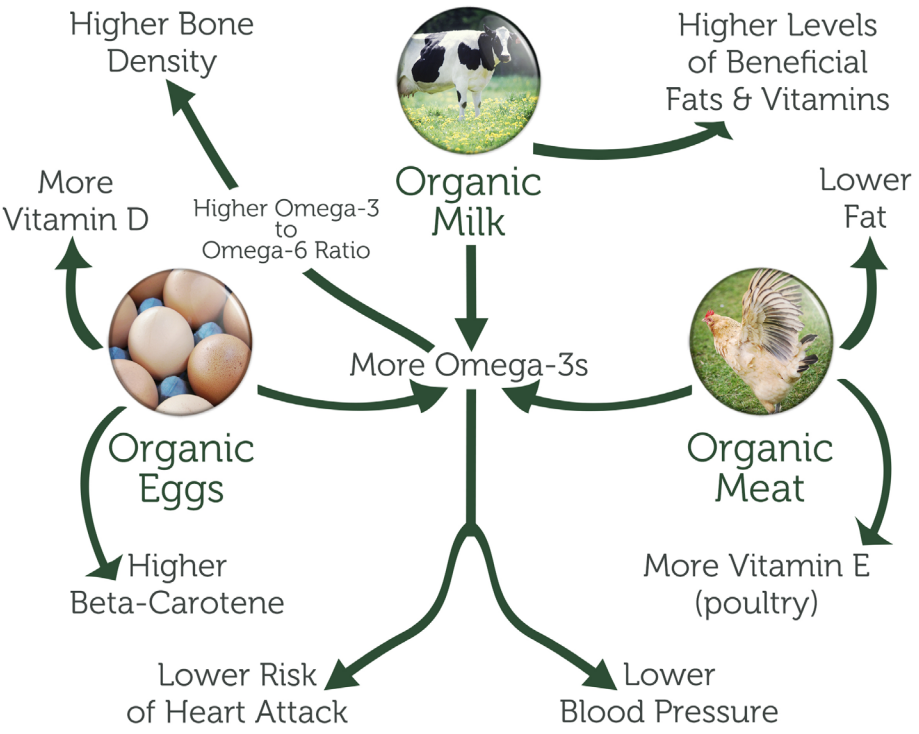
People often view the humane treatment of animals as an indicator of enhanced food safety, nutrition, and quality.[38] Scientific evidence supports this viewpoint. Even minimal improvements in production systems offering animals greater opportunities for exercise, behavioral expression, and naturally-suited diets, such as those contained in NOSB's recommendations, can drastically improve animal welfare without significantly economically impacting companies or consumer prices. These improvements simultaneously benefit animals and public health, but they are noticeably absent from USDA's economic analysis.

Research demonstrates that providing an appropriate living space and diet for animals yields meat and dairy products that provide greater health benefits to consumers. These "higher-welfare" animal products have demonstrable nutritional benefits over products from their industrially reared counterparts.[39] As most people realize, consuming excess animal fat may contribute to weight gain as well as heart disease and other health problems.[40] "Higher-welfare animal products are often significantly lower in fat than equivalent products from intensively reared animals."[41] Research shows lower total fat in pasture-reared beef, free-range and organic chicken, chicken of slower growing breeds, and wild salmon and trout.[42] Moreover, higher-welfare animal products also have a healthier balance of fats. In the case of poultry specifically, eggs from pastured hens contain more omega-3 fatty acids than those from chickens housed indoors.[43] Omega-3s are considered essential to human health and

are linked to lower blood pressure, lower risk of heart attack, and lower instances of mental health issues, such as depression, schizophrenia, attention deficit disorders, and Alzheimer's disease.[44] Similarly, a 2009 study found that eggs from pasture-raised chickens contain three to six times more vitamin D than chickens confined indoors.[45]

Improving an animal's diet yields even more significant positive effects on nutritional quality than improving welfare alone. Grass-fed chickens produce eggs with higher beta-carotene, the precursor to vitamin E, than grain-fed chickens.[46] Chickens fed clover had the highest vitamin E levels.[47] Grass-based diets result in elevated omega-3 fatty acid levels in eggs 2.5 times higher than grain-based diets.[48] These benefits are not limited to chickens. Meat and milk products from humanely raised ruminants—such as cattle, goats, and sheep—have higher levels of beneficial fats and vitamins.[49] A recent comparative study of organic versus conventional milk demonstrated that organic whole milk contains sixty-seven percent more omega-3 fatty acids than conventional milk.[50] Researchers attribute the markedly higher level of this essential fatty acid to the high percentage of pasture-based feed required for organic producers. Grass-fed cattle also showed a closer to optimum ratio of omega-6 to omega-3 fatty acids than feedlot cattle.[51] Clinical studies have shown a correlation between higher omega-3 to omega-6 ratios and higher bone density, reduced heart disease, and reduced mortality in men and women.[52]

Health Benefits of Higher Animal Welfare Standards



Under current regulations, which lack considerable specificity, organic chickens may be housed in cramped, dark, unsanitary facilities with little or no access to the outdoors, let alone soil or pasture.

"[C]onsumers equate natural production methods with safer food quality."[53] This should come as no surprise as incidences of food-borne illness are closely connected to negligent animal welfare practices. For example, hens raised in animal factories are often kept in unsanitary conditions that lead to food-borne illness. Large industrial poultry facilities have documented incidences of hens covered in liquid manure, moving between barns through manure trenches or on egg conveyers, and walking amidst manure overflows on barn floor trenches that run underneath the cages and into pipes leading to outside lagoons.[54] Decaying, dead hens are customarily left on floors, in cages, and on cage ledges and tops, often in direct contact with live hens and eggs.[55] When animals are not only exposed to feces and decaying carcasses, but also live in and among them, their risk of contamination soars.

The quality of an animal's life and living conditions directly correlate with the quality of the food it yields and the health and well-being of consumers. Higher welfare standards—such as those proposed for organic poultry operations—provide critical benefits not accounted for in USDA's standard economic analysis.

CONDITIONS ON SOME ORGANIC FARMS FAIL TO MEET CONSUMER EXPECTATIONS

Unfortunately, organic consumer expectations and organic production realities do not always coincide, particularly when it comes to poultry. In some cases, the living conditions of organic animals are not much better than those of industrially raised animals. Thus, under current regulations, which lack considerable specificity, organic chickens may be housed in cramped, dark, unsanitary facilities with little or no access to the outdoors, let alone soil or pasture.[56] The sheer number of animals housed at some facilities is shocking and it is highly doubtful that most organic poultry consumers understand that two out of every dozen organic eggs, and virtually all organic broilers, are produced in concentrated production facilities.[57] Even worse is the fact that ninety-nine percent of organic broilers are produced in facilities that house more than 100,000 birds.[58] Tacitly allowing these practices with continued delays in regulation promulgation undermines the integrity of the organic label and brand.

Implementation of NOSB's recommendations will improve the baseline standards of animal welfare in organic agriculture. Once codified into regulations they will prohibit certain practices that are common in conventional animal agriculture. These practices include: caponization (the castration of chickens, turkeys, and pheasants); de-snooding (the removal of turkey snood); toe clipping (the removal of the nail and distal joint of the back two toes of a male bird); de-beaking (removal of more than the beak tip); and dubbing (the removal of poultry combs and wattles). NOSB also recommends that laying hens have at least two square feet of space per bird both

outdoors and indoors. While these and other adjustments to current practices are by no means revolutionary, they are the *minimum basic welfare improvements* needed to improve the quality of life for organic chickens. Making these improvements to animal welfare will simultaneously improve food safety and nutrition.

Since neither animal welfare nor organic values are solely about economics, the decision about whether or not to promulgate strong animal welfare standards cannot rest on economic factors alone.

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PART 2: USDA's ECONOMIC IMPACT ANALYSIS: HOLDING THE 99% HOSTAGE

USDA commissioned the study: *Economic Impact Analysis of Proposed [NOSB] Regulations for Living Conditions for Organic Poultry* to "provide independent economic impact analysis of possible regulatory changes for the living conditions of organic poultry."[59] The analysis looked at the estimated cost increases for small (less than 16,000 birds), medium (16,000 to 100,000 birds), and large (more than 100,000 birds) sized egg and broiler producers and presented three main conclusions. First, it suggested that bringing large broiler producers into compliance with NOSB recommendations would result in a "modest" 2.5 percent increase in price. Second, the authors assert that impacts on small and medium organic egg and broiler producers would be "negligible," since most already operate under conditions similar to or better than those proposed by NOSB. Third, the authors conclude that large egg producers would switch to conventional production if USDA/NOP adopts NOSB's recommendations. The authors base this conclusion on data provided by the five largest egg producers, accounting for only one percent of the estimated 580 organic egg producers. Small and medium-sized producers—the remaining 99 percent—are already mostly in compliance or could easily become compliant with NOSB's recommended changes. All the while, the authors ignore critical ethical considerations of animal welfare, as described previously.

USDA is allowing a few large egg producers—the one percent—to hold the organic poultry industry—the ninety-nine percent—hostage by not allowing the implementation of baseline animal welfare regulations. This is the case even though much of the industry is in compliance with NOSB's recommendations and many even exceed those minimal requirements. Limited data and faulty calculations provide the basis for the authors to assert, without reservation, that largest producers cannot afford to implement even the baseline animal welfare practices recommended by NOSB.

CFS believes that failing to implement NOSB's recommendations could have catastrophic consequences for the credibility of NOP and for consumer confidence in

all organic food products. These concerns and USDA's decision to delay animal welfare regulations prompted CFS to commission economist and Professor Emeritus, John Ikerd,[60] to review USDA's economic analysis, its underlying assumptions, and the data used to support the report's findings. Below are CFS's synthesis, summary, and conclusions based in part on Ikerd's review—see his full analysis in Appendix A.

NOSB'S RECOMMENDATIONS WOULD "NEGLIGIBLY" EFFECT ORGANIC BROILER PRODUCERS

USDA's economic analysis concludes that NOSB's recommended changes would have "negligible" economic impacts on small and mid-sized organic broiler producers. Estimated cost increases for the largest organic broiler producers are less than 2.5 percent. While the authors label this a "modest" cost increase, CFS believes that the impact, at less than 2.5 percent, is clearly overstated. Ikerd agrees that the cost increase is "so small as to be economically inconsequential."[61] CFS further argues that the implementation of NOSB recommendations would have minimal repercussions within the organic broiler industry. Therefore, the remainder of this analysis focuses on the organic egg production aspect of USDA's report.

USDA INAPPROPRIATELY CLAIMS "SUBSTANTIAL" IMPACT TO ORGANIC EGG PRODUCERS

USDA's economic analysis classifies the impact of implementing animal welfare standards on large egg producers—those housing more than 100,000 birds at a facility—as "substantial." It concludes that heightened animal welfare standards would "likely cause a substantial number of producers to exit organic production and switch to conventional production."[62] Given the huge number of birds housed at the largest facilities, it is hard to imagine how any significant animal welfare regulations could be implemented at those facilities or how they can operate in accordance with organic principles.

The study also fails to provide an economic basis for failing to act on NOSB's recommendations. For example, in the baseline fixed cost estimates for small, mid-sized, and large producers, including facilities, are about $40 per bird for large operations, $32 per bird for medium operations, and $29 per bird for small operations.[63] When NOSB's recommendations are adopted, USDA's Economic Impact Analysis found that the fixed cost per bird for small and medium operations will remain relatively unchanged, whereas the cost per bird for large operations jumps to $295 per bird.[64] These figures seem grossly inaccurate. It is hard to imagine that small and medium sized producers can comply with NOSB recommendations at one-tenth the cost of larger producers. Considering the economies of scale, that proponents of industrial

animal factories often rely upon to keep prices low at the expense of poor animal welfare practices, this simply makes no sense. The efficiencies gained at large production plants should result in lower per bird costs, not substantially more.

USDA's economic analysis attributes the incredible cost differential to the need of large producers to depopulate facilities and shrink the number of birds housed at the facility from 100,000 birds to 13,500 birds to meet space requirements. The assumption that large operators would not adjust by any means other than building new facilities is simply unrealistic. If small to mid-sized egg producers can meet NOSB's proposed animal welfare requirements at one-tenth the cost of large producers, then either (1) the analysis is incorrect and large producers can indeed make improvements to their production facilities at a lower fixed cost per bird; (2) large egg production facilities are not compatible with humane production of organic eggs; (3) large egg producers are not operating efficiently in the first place; or (4) large egg producers are overstating the potential impacts in an effort to block regulatory change.

USDA'S FLAWED ANALYSIS OFFERS INADEQUATE BASIS FOR STALLING ANIMAL WELFARE

USDA Provides No Discussion of the Benefits to Small and Mid-Sized Producers

While there are inevitable costs associated with the implementation of animal welfare standards, there are also inherent benefits. USDA's economic analysis fails to address these potential benefits, particularly with respect to how they may accrue to small and mid-sized producers if their prediction of large producer behavior rings true. For example, if the large producers abandoned organic production, this could mean a near eighty percent increase in revenues for ninety-nine percent of existing organic egg producers.[65] This includes a positive readjustment of the market that would likely occur as consumers realize that organic egg and poultry producers are taking action to protect animal welfare. How could this possibly be interpreted as economically detrimental to organic egg producers, other than to those five large producers who would still have access to conventional markets if they chose to switch? While these increases in revenue would inevitably level off as production expands, small and medium-sized producers would still expect to see notable revenue increases with the exit of larger producers from the organic market.

USDA's Use of "Representative Operations" Not Scientific Basis for Stalling Regulations

USDA's economic analysis is based upon "a set of representative operations, defined by the size of the operation and type of organic poultry product handled."[66] While economic assessments of "representative operations" can theoretically provide use-

Perhaps the greatest flaw in USDA's economic analysis is that it does not adequately take into account the expectations or ethical values that the public places on animal welfare practices in organic agriculture.

ful information, they do not comprise a solid scientific foundation upon which to draw valid conclusions.[67] They lack statistical validity and, therefore, should be used cautiously and not relied upon as a basis for making decisions regarding the future impacts of animal welfare regulations on the organic poultry industry. This is why the study lacks any predictive capacity and it cannot be used as a basis for forecasting the future, as acknowledged by its authors.[68] As a notable methodological limitation of the study, the use of representative operations weakens the report's usefulness for policy-making purposes.

USDA's Stagnant, Inflexible Economic Models Do Not Mimic Market Behavior

In contrast to real markets, USDA's economic analysis takes a stagnant approach to analyzing markets. It fails to account for market elasticity, and changing egg prices that can regularly occur in the marketplace.[69] It also does not consider factors that could influence large, medium, and small organic egg producers in the future, as producers enter and exit the market. Based solely upon claims by five egg producers, and in the absence of any statistical evidence, the authors argue that the economic impacts of implementing even minimal animal welfare standards would be grave. They further argue that, in the short-term, the largest producers would exit organic. But, this claim fails to factor in changing market dynamics, such as price increases for organic eggs and poultry due to a lack of supply, which could stimulate the re-entry of large producers back into the organic egg market. Such dynamics could motivate new small and medium-sized organic egg producers to enter the market as well.

USDA Ignores Expectations and Ethics Inherent in Organic Purchases

Perhaps the greatest flaw in USDA's economic analysis is that it does not adequately take into account the expectations or ethical values that the public places on animal welfare practices in organic agriculture. The analysis ignores the substantial and growing concern among organic consumers regarding the well-being of food-producing animals that provide the basis for certified organic food. Yet both the existence of organic farming and of a distinct market for organic food is as much a reflection of the social and ethical values associated with production practices as it is the economic impact of production choices. Consumer expectations, ethics, and perceptions about organic foods are critical factors for NOP to consider in establishing or changing organic regulations. The social and ethical values that provide the conceptual foundation for organic markets have economic value in that they affect the supply and demand for organic products. USDA's failure to discuss any of these "organic values" or in any way attempt to quantify and incorporate them into their analysis represents a major flaw in the study and indicates a fundamental lack of understanding of organic consumers and markets.

USDA's Perception of Consumer Expectations About Animal Welfare Is Inaccurate

The authors of USDA's economic analysis point to "transparency" as one noteworthy benefit of incorporating additional animal welfare regulations into the current organic standard.[70] Greater transparency is a logical response to growing public concerns regarding humane treatment of farm animals. Adoption of NOSB's recommended animal welfare regulations coupled with greater transparency about organic poultry living conditions, therefore, would create an identifiable national baseline that could increase the demand for organic poultry products.

Conversely, greater transparency coupled with no change in existing animal welfare standards could easily result in a dramatic decline in consumer demand for organic poultry. In other words, consumers may not be willing to pay a premium for organic poultry products if they realize that current organic standards are not much better than conventional animal factories. That is because animal factories are widely considered to be a large and growing threat to the natural environment and human health, especially by organic consumers. For example, conventional animal agriculture in the United States creates 133 million tons of manure each year, thirteen times the amount of human waste produced annually.[71] This waste not only contains manure, but also a host of pharmaceuticals, pesticides, and pathogens that can have devastating impacts on public health. As detailed above, animal factories are also inherently incompatible with the humane treatment of animals.

To the vast majority of organic consumers, and a growing number of all consumers, animal factories represent a socially irresponsible, immoral, and reprehensible means of producing animals. In 2008, California consumers voted to prohibit the confinement of certain animals in gestation crates or battery cages because they cruelly prevent them turning around freely, lying down, standing up, and fully extending their limbs.[72] Organic consumers would probably be surprised and disturbed to find that similar conditions currently exist in organic production. The public exposure of such practices could prove a major embarrassment, and spell economic disaster, if growing public opposition to animal factories led to a boycott of animal products from confined organic egg producing facilities.

CONCLUSION: PATH TO CONTINUOUS IMPROVEMENT

USDA's economic analysis of NOSB's organic poultry recommendations is based upon limited data and faulty calculations. This renders the conclusion that it would be extremely difficult if not impossible for the largest producers to comply with NOSB's minimal animal welfare recommendations indefensible. The remainder of the report's findings provide no evidence to delay promulgating animal welfare reg-

The problem of under-compliance with the spirit and intent of animal welfare provisions in OFPA is a practice that the organic poultry and egg sector can ill afford to continue.

ulations. On the contrary, the study demonstrates that most producers are already in compliance with NOSB recommendations. Moreover, the adoption of animal welfare rules could actually result in some producers financially benefitting from higher prices, if larger producers left the organic market and demand began to outstrip supply. This important conclusion was noticeably overlooked by report authors. Equally as important, the study exposes the underlying problem of indefinitely delaying the development of regulations, as is the case with respect to animal welfare regulations for poultry, because undesirable practices can become entrenched. This problem of under-compliance with the spirit and intent of animal welfare provisions in OFPA is a practice that the organic poultry and egg sector can ill afford to continue.

The development of animal welfare standards was always meant to be an evolutionary process because when OFPA was drafted the parameters of animal welfare in organic animal agriculture were not yet well defined. After nearly twenty-five years of organic animal agriculture, organic animal husbandry has evolved and so have consumer expectations along with it. The organic community has actively engaged in debates on the subject and contributed to the substance of the recommendations that NOSB submitted to USDA/NOP for drafting into final rules.

Implementation of NOSB's recommendations would strengthen and standardize current animal welfare practices for poultry and egg producers and clarify requirements for certifiers. Even so, the recommendation is a far cry from revolutionizing organic animal production. It will simply raise the bar on organic animal production by providing a baseline standard for the organic egg and poultry industry. If adopted, the only potential negative impact would be on five large egg producers who represent only sixteen percent of total organic egg production and only one percent of all organic egg producers. While it would certainly be unfortunate if those producers chose to exit the organic market, the risk of their leaving certainly does not provide a sufficient basis for not taking action to develop regulations.

All other major findings in the study indicate that adoption of NOSB's recommendations would result in significant economic gains for the other ninety-nine percent of organic egg producers and for the future of the organic poultry industry. However, failure to adopt the minimal NOSB recommendations and failure to mandate continuous improvements in animal welfare standards pose grave risks for the future of organic poultry and for the organic label.

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[60] John Ikerd holds BS, MS, and PhD degrees in agricultural economics from the University of Missouri. He worked for three years in the area of marketing for a major meat packing company between his BS and MS degrees. His graduate research focused on livestock marketing, and he spent the first fifteen years of a thirty year academic career as a livestock marketing specialist. Ikerd taught courses in marketing and published a number of articles related to livestock marketing in professional journals during his academic career. The last half of Ikerd's academic career has focused on sustainable agriculture, including organic agriculture. For example, he served as a liaison between USDA and the Land Grant Colleges during the early years of the Sustainable Agriculture Research and Education program. Upon retirement in 2000, he was awarded the title of Professor Emeritus of Agricultural Economics by the University of Missouri. Since retiring, he has continued to write and speak on issues related to sustainability with an emphasis on economics and agriculture, including organic agriculture, and is on the board of the Socially Responsible Agriculture Project.

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GRAPHIC ATTRIBUTIONS

Health Benefits of Higher Welfare Animal Standards (Page 9)

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APPENDIX

Economic Impact Analysis of Proposed Regulations for Living Conditions for Organic Poultry (by Vucina, Anderson, and Muth)

Professional Evaluation by John E. Ikerd, PhD[i]

I was asked by the Center for Food Safety in Washington, DC to evaluate the above-named economic impact analysis prepared by professional consultants for the Agricultural Marketing Service of USDA. In terms of my qualifications, I hold BS, MS, and PhD degrees in agricultural economics from the University of Missouri. I worked for three years in the area of marketing for a major meat packing company between my BS and MS degrees. My graduate research focused on livestock marketing, and I spent the first 15 years of a 30 year academic career as a livestock marketing specialist. I taught courses in marketing and published a number of articles related to livestock marketing in professional journals during my academic career.

My work during the last half of my academic career focused on sustainable agriculture, including organic agriculture. For example, I served as a liaison between USDA and the Land Grant Colleges during the early years of the Sustainable Agriculture Research and Education program. Upon retirement in 2000, I was awarded the title of Professor Emeritus of Agricultural Economics by the University of Missouri. Since retiring, I have continued to write and speak on issues related to sustainability with an emphasis on economics and agriculture, including organic agriculture. I have done several economic impact assessments similar to this one during my career, and I feel am well qualified to critique this analysis for the Center for Food Safety.

Introduction

It is my understanding that The National Organic Standards Board (NOSB), in December 2011, agreed on language concerning appropriate living conditions for organic poultry and sent its recommendation to the National Organic Program (NOP) to be drafted into government regulations. The additional language would have clarified requirements for outside access and other living conditions for organic poultry. Upon receipt of the NOSB recommendations, the NOP requested an economic impact analysis comparing the NOSB recommendations, independent animal welfare standards, and existing regulations.

The resulting economic analysis concluded that the NOSB's recommended changes would have "negligible" economic impacts on small and midsized organic broiler producers. Estimated cost increases for large organic *broiler* producers were less than 2.5%, but nonetheless called "modest" in the conclusions of the analysis. The analysis also concluded the proposed changes for small and midsized organic *egg* producers would be "negligible," but that negative impacts would be "substantial" for the largest producers of organic eggs.

According to the report, only a few large egg producers with facilities housing more than 100,000 layers are not already meeting the NOSB requirements, or claim they could not meet them with "negligible" or "modest" increases in cost. The report indicated that these "five" egg producers representing the large category account for only 16% of total organic egg production and represent less than 1% of all organic egg producers. Nonetheless, the NOP subsequently rejected the NOSB recommendation to add the proposed language regarding treatment of animals, presumably basing its rejection on the economic analysis. In a statement accompanying

public release of the analysis, the NOP stated: "Given other urgent priorities at this time, we do not anticipate addressing the NOSB proposals on animal welfare in the near future."

In my professional opinion:

1) The economic analysis was inherently inadequate to provide a basis for rejecting the NOSB recommendation,

2) The estimates of negative economic impacts on large producers are highly questionable,

3) The estimates of animal welfare effects on consumer demand for organic poultry are inadequate, and

4) The demand coefficients chosen for use tend to magnify costs and minimize the benefits of the NOSB recommendations for the organic poultry industry.

5) Damage to the organic brand could be considerable if action is not taken to ensure the universal implementation of animal welfare protections in organic poultry and egg production systems.

After reviewing the economic impact analysis, I believe the economic benefits of implementing the NOSB recommendations would clearly outweigh any economic costs. Perhaps even more important, failing to implement the animal welfare recommendation of the NOSB could have potentially "catastrophic" consequences for the credibility of the NOP and for consumer confidence in certification of other organic food products. My specific comments are brief and directed toward the analysis of economic impacts of implementing the NOSB recommendation (Option 3) for organic egg production. The estimated impacts of changes in organic broiler production were so small as to be economically inconsequential.

1. The AMS Economic Analysis is an Inadequate Basis for Rejecting the NOSB recommendation

a. "Representative Operations" Provide no Scientific Basis

The basic nature of the impact assessment leaves it inherently inadequate to use as a logical basis for rejecting the recommendation of the NOSB. According to the authors, all of the cost estimates were based on "a set of representative operations defined by size of operation and type of the organic poultry product handled." As they point out, this method is "frequently used in conducting economic impact analyses because it facilitates estimation of industry costs with relatively limited data over a short time period." Even the authors recognize its limitation when they write: "We developed and implemented the methodology for estimating the increased costs that *might be associated* with the proposed regulations" (emphasis added). The authors make no claim that the analysis has any predictive capacity or forecasts actual future consequences.

Economic assessments based on "representative operations" provide potentially useful information, but they provide no scientific basis for drawing valid conclusions concerning future consequences of actions because they have no statistical validity. Furthermore, the authors

make no attempt to provide estimates of how producers would adjust to changes in animal welfare requirements, other than the statements by large producers that they would switch to conventional production. Questions were never addressed concerning whether some large producers might change their minds as egg prices move higher in response to smaller supplies or stronger demand or how small producers would respond to increases in egg prices. There was no attempt to evaluate the long run impact of including meaningful animal welfare requirements or of failing to include meaningful animal welfare requirements in organic poultry standards.

This economic impact analysis might have been useful to the NOSB during its deliberations, as it would have provided some potentially valuable information for their consideration. The experts on the NOSB could have integrated the economic estimates for representative operations with other broader and longer-term considerations in drawing their conclusions. Ironically, the economic assessment would likely have strengthened the confidence of the NOSB in their recommendation to the NOP. Regardless, there is nothing in the economic impact report that in any way justified the rejection of the NOSB recommendation. The only logical link between the rejection and the economic assessment is the potential negative impacts of option 3 on five large organic egg producers who represent only about one-sixth of the organic egg market.

b. Organic Markets Have Ethical and Social Values not Captured by Economic Assessments

Perhaps the greatest oversight in the NOP decision is its apparent failure to reflect the basic nature of the relationships among the concepts of organics, animal welfare, and economics. Markets for organic foods are fundamentally different from markets for conventional agricultural products. “Organic” is defined as much, and perhaps more, by the “process of production” as by the physical quality of “organic products.” Current organic standards relate primarily to the organic or inorganic nature of production inputs, including food additives, and the depletive or regenerative nature of farming practices. There are no organic standards for color, size, or nutritional value of organic products. There may be perceived differences in organic *products*, but the standards relate primarily, if not exclusively, to organic *processes* rather than *products*.

The existence of organic farming, and of a distinct market for organic food products, is as much a reflection of social and ethical values associated with production practices as the economic values reflected in markets for organic products. The social and ethical values that provide the conceptual foundation for organic markets have economic value, in that they affect the supply of or demand for organic products. However, many “organic values” are purely social or ethical and thus are not reflected in markets and cannot be assessed economically. These social and ethical values are major contributors to the existence of organic markets but are not reflected in supply of or demand for organic products.

Social values are most readily apparent in local organic markets in cases where personal relationships are established between organic producers and consumers. Social relationships also have economic value in that they tend to reduce transactions costs. However, economic value is inherently impersonal; it is a transactions value. If you can’t trade, buy, or sell it, it has no economic value. Social values are *personal*: A friend that can be bought or sold is not a “real friend”. Yet, few would deny that friends are extremely *valuable*. Organic consumers can reflect the value of their relationships with organic producers in organic markets only to the extent that they have the ability to buy their products, which may grossly undervalue the social relationship as a whole. Thus, markets may not accurately reflect the full social value of organic products.

Consumers can also reflect their moral and ethical values in the foods they choose to buy and the prices they are willing to pay. Some part of price premiums for organic foods is a reflection of the ethical values associated with organic foods. However, ethical values are not and cannot be fully or accurately expressed in terms of market value or economic value. Unlike economic values, ethical values are non-instrumental. Economic values are means to an end, a means of gaining something else of greater value. Ethical values are ends in and of themselves. Ethical production practices may have some economic values, such as those reflected in premium prices for ethically produced products. But again, the ability of people to express their ethical values economically is limited by the availability of ethically produced products and their ability to buy those products. Thus, markets have very limited abilities to reflect the ethical values embodied in organic products. Moral or ethical values are issues of particular significance in matters related to organic standards for animal welfare.

c. Valuing Animal Welfare in Economic Terms is Problematic

Animal welfare is a social and ethical issue, and decisions regarding organic standards for animal welfare cannot be left to the marketplace or determined by economic assessments of proposed regulations. Some people believe that animals have "rights" to be treated humanely, regardless of their economic value. This is clearly an ethical value. Others believe people have an ethical or moral "responsibility" to treat animals humanely, regardless of their economic value. Such people do not expect anything tangible or of economic value in return for treating animals humanely. It is simply the right thing to do. These beliefs do not necessarily mean animals have the same rights as humans or should be treated like human, or that animals should not be used for food. They simply mean that humane treatment of animals should not be based on the economic value of animals to humans. People who feel an ethical responsibility to treat animals humanely can and do express their preferences in the marketplace. However, their ability to do is limited by their ability to pay higher prices for humanely produced animal products, which may seriously undervalue the social and ethical values of animal welfare.

When "willingness to pay" approaches are used for market or non-market economic impact assessments, as cited in the assessment study, only the economic motivation is given consideration. In private matters related to economic value, people vote with dollars; the more dollars the more influence. This is appropriate where matters are purely economic. In public matters that involve social and ethical value, democracies must afford everyone an equal voice in decision processes, regardless of their economic status or ability to pay. Furthermore, people quite logically will support collective actions, including those required by regulations, they would not take as individuals, without assurances that others would act likewise. Thus people reason that their individual economic decisions will have no appreciable influence on the market as a whole, whereas collective actions can bring about change. The authors of the analysis focused solely on economic values, as they apparently were instructed to do. The NOP apparently gave no additional consideration to social or ethical values, even though organic standards for animal welfare is clearly a social and ethical issue. The NOSB, on the other hand, presumably is made up of people who understand the importance of social and ethical values in matters related to animal welfare in organic agriculture.

The primary role of government in such matters is to reflect the social and ethical values of people governed – the citizenry, not the economy. If matters are purely economic in nature, government should simply facilitate markets, which the NOP has done by developing organic standards. In matters of markets rooted in the social and ethical values embedded in organic, government has the added responsibility of ensuring that the interest of the general public is

fairly represented, giving an equal voice to all regardless of their ability to influence market prices. The economic assessment report states: "Executive Orders 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (*including potential economic, environmental, public health and safety effects; distributive impacts; and equity*)." (Emphasis added) The issue of animal welfare requirements for organic standards cannot be dictated by an economic impact analysis.

2. The Impact Estimates for Large Producers are Highly Questionable

That said, this particular economic analysis fails to provide even an economic basis for rejecting the NOSB proposal. Some aspects of the estimates of negative economic impacts for large egg producers are highly questionable. For example, in the baseline estimates of production costs for small, midsized, and large producers, the cost of fixed costs for large operations, which includes facilities, were somewhat higher, just under $40/bird, than the midsized and small operations, which were $32/bird and $29/bird respectively. Under option 3, the NOSB recommendation, fixed costs per bird remained essentially unchanged for small and midsized producers, as they are already meeting space requirements. However, the large operators were assumed to cut their population of laying hens from 100,000 to 13,500 with no offsetting reduction in fixed costs. The fixed cost per bird for the large operations jumped to $295/bird.

The authors attempt to explain the inability of large operators to adjust by any means other than depopulating the same facilities. However, it's difficult to believe that small and midsized egg producers can meet the facilities requirements of option 3 at "one-tenth" of the facilities cost per bird that would be required of large producers. The only logical conclusions are that large operations either: 1) could in fact make adjustments to their facilities that would allow them to meet the new animal welfare requirements at a lower fixed cost per bird or 2), and more important, that the large facilities are fundamentally incompatible with humane production of organic eggs. It's a well-known fact in public polity circles that agricultural producers have always found ways to minimize the economic impacts of new government regulations, in spite of initial predictions of economic disaster. If the facilities of large egg producers are *so* different from facilities of small and midsized producers as to preclude modification, it might well be best for the future of organic markets if the large producers switched to conventional egg production.

3. The AMS' Perception of Animal Welfare Effects on Consumer Demand Is Inaccurate

One reason given for additional language related to animal welfare requirement for organic poultry was to provide greater "transparency," presumably to better inform organic consumers of how animals were treated by organic producers. Greater transparency would be a logical response to growing public concerns regarding humane treatment of farm animals in general. Greater transparency coupled with the additional language in option 3 might well have resulted in an increase in demand for organic poultry products, as suggested by the economic analysis. However, greater transparency coupled with "no change" in existing animal welfare standards could well result in a dramatic decline in consumer demand for organic poultry. It's highly doubtful that most consumers of organic poultry products understand that two out of every dozen organic eggs, and virtually all organic broilers, are produced in the largest class of concentrated animal feeding operations or CAFOs.

An egg producing operation with 100,000 laying hens represents 3,333 "animal units" or AUs. Animal unit is a term used by the EPA to equate the negative environmental impacts of

different species of animals raised in confinement. Thirty laying hens represent one animal unit. The number of broilers per animal unit has recently been raised from 100 birds to 125 birds per AU. The study indicated that 99% of all organic broilers are produced in operations with more than 100,000 birds. The largest category of CAFOs is 1,000 or more animal units. Thus, the vast majority of organic broiler operations and all of the large organic egg operations are classified as CAFOs.

To the vast majority of organic consumers, and a growing minority of all consumers, CAFOs are a socially irresponsible or immoral means of producing animals. CAFOs are widely considered to be a large and growing threat to the natural environment and public health and are inherently incompatible with humane treatment of animals. Most organic consumers would not likely consider CAFOs to be compatible with organic production and would probably be surprised to find that CAFOs are currently allowed in organic production. If they knew that two out of every organic eggs they purchase came from a CAFO, demand for organic eggs might drop dramatically. It could prove a major embarrassment, as well as an economic dilemma, if growing public opposition to CAFOs led to a future nationwide boycott of animal products from CAFOs that included even specific brands of organic products.

4. The Demand Coefficients Chosen Magnify Costs and Minimize Benefits

a. The "Guesstimations" Skew Cost Estimates

On the more technical points of the analysis, the authors provided estimates of changes in supply, demand, and market price that might result from changes in the standards in Option 3 relative to their benchmark or current market situation. Price elasticity of demand is defined as the percentage change in quantity demanded by consumers resulting from a one percent change in price of the product – a key coefficient in estimating market impacts. Their benchmark demand elasticity estimates were generally in line with estimates in market literature. However, they admitted that their elasticity estimates for organic broiler and organic eggs were "'guesstimated' using a combination of the empirical results from the existing literature, economic theory, and intuition" (page 4-5, economic analysis).

The authors estimated that demand for organic poultry products would be more elastic, or less inelastic, than demand for conventional poultry products. The "guesstimated" difference for broilers seemed reasonable with -0.65 for conventional and -1.0 for organic, although it's rare for a basic food product to have an elasticity of 1.0 or greater. The "guesstimated" difference for organic eggs was more questionable with a change from -0.20 for conventional and -0.90 for organic eggs. A guestimate of -0.40 to -0.50 for organic eggs might have been more reasonable and defensible in light of the elasticity difference the authors used for broilers.

Quantity elasticity, or increase in price associated with a change in quantity supplied, is the inverse of price elasticity. The authors estimated that total organic egg production would drop by 16% under option 3 animal welfare standards, as large producers shift to conventional production, resulting in an 18% increase in prices. Using a price elasticity of -0.45 instead of -.90, this drop in egg supplies would result in a 36% increase in organic egg prices. Thus, the negative market impacts of large egg producers leaving the organic market may well have been seriously overestimated by using "guesstimated" price elasticity of -.90.

The authors also estimated that a 40% increase in prices of organic poultry products might result from the new, more stringent animal welfare standards. This was as the lower

end of price increases indicated in European studies cited by the authors, but does not appear unreasonable. So, organic egg prices would increase by an estimated 79% as a result of adopting the NOSB recommendation for new animal welfare requirements. The authors use a complex market model that included supply and demand parameters for both organic and conventional market, but the end results were well in line with what might have been derived from a simple demand curve.

b. No Discussion of the Benefits to Small and Mid-size Producers

If the large producers abandoned organic production, this would mean nearly an 80% increase in revenues for the 99% of current organic egg producers. How could this possibly be interpreted as being economically detrimental to organic egg producers – other than to the five large producers who would still have access to conventional markets?

Obviously, an 80% increase in organic egg prices would not actually occur, as suggested previously. As prices began to rise, profits would increase, and existing producers would have economic incentives to increase organic egg production. Since they are obviously covering their costs at current prices, they would continue to expand as long as prices remained high enough to cover the cost of their expanded production. At some higher price, large producers might find it economically feasible to modify their facilities and resume organic production. Even with no expansion in demand, overall production could be expected to return to current levels.

Any negative impacts on producers of organic feeds would be short-lived. Lower prices for feed would stimulate expansion in feeding and increases in feed consumption by other organic sectors. As organic egg production returned to current levels any negative effects of option 3 on organic feed producers would be erased. With an expansion on overall demand for poultry associated with the new animal welfare standards, organic production could be expected to continue to increase beyond current levels. With a price elasticity of -0.50, for example, a 40% initial increase in price might result in as much as a 20% expansion of the organic egg market over current levels, depending on whether overall production costs rise with increased production. The potential dynamics of the market adjustment process is beyond the scope of these brief comments, but nonetheless should have been taken into consideration by the NOP.

Conclusion

In conclusion, the economic impact analysis provides no logical basis for rejection of the NOSB recommendations to include additional language pertaining to animal welfare in organic poultry standards. The analysis dealt solely with economic considerations, and neither organics nor animal welfare are solely economic issues. In fact, they are both fundamentally social and ethical. Furthermore, the "representative operation" approach used in the study, while providing potentially useful information, provides no statistically valid means of estimating the economic consequences of changes in regulations.

The information provided by the study suggests that the only negative economic impacts of adopting the proposed animal welfare standards would be to the five large egg producers who represent only 16% of total organic egg production and only 1% of total organic egg producers. Virtually everything else in the study indicates that adoption of the NOSB recommendations would result in significant economic gains for the other 99% of organic egg producers and for the future of the organic poultry. On the other hand, failure to adopt the NOSB recommendations poses potentially grave risks for the future of organic poultry and for the organic movement in

general. In my professional opinion, the NOP should reconsider their decision and implement the NOSB recommendations for animal welfare standards as quickly as possible.

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