



# Cheeps & Chirps

..... Points for Poultry Profitability

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## NCC RELEASES REVISED PROGRAM ON ANIMAL WELFARE

Washington, Feb 12, 2010—The National Chicken Council released today a revision of its Animal Welfare Guidelines and Audit Checklist, the industry-standard program for assessment of animal welfare programs and practices in broiler and broiler-breeder operations.

*"Our revised program demonstrates the chicken industry's strong commitment to animal welfare and ensures that companies that use the program will continue to meet the expectations of their customers for the proper treatment of animals,"* said Thomas M. Hensley Jr., chairman of the National Chicken Council and president of Fieldale Farms in Baldwin, GA.

The revisions were recommended by a task force of industry veterinarians and other experts, chaired by Bill Lovette (president and chief operating officer of Case Foods in Troutman, NC.) and approved by the NCC executive committee and board of directors.

*"Animal welfare has become engrained in the operations of our companies and in the expectations of our customers, the supermarket, and restaurant companies that buy our products,"* Lovette said. *"It's part of the way we do business. The NCC program is utilized by companies with the vast majority of production in the industry and is widely accepted by customers."*

The revision is the first overhaul of the program in about five years. Lovette said key differences in the new program, compared with the guidelines in effect since 2005, include:

- \* Greater emphasis on corporate commitment to animal welfare, including a requirement that senior management must sign off on company's animal welfare program.
- \* Each department of the company han-

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## NEW WATCHDOG WEBSITE MONITORS HSUS

Washington, DC—In February the Center for Consumer Freedom (CCF) announced the launch of humaneWatch.org, a watchdog project dedicated to analyzing the activities of the Humane Society of the United States (HSUS). 'HumaneWatch' will include a blog written by CCF's Director of Research, a growing document library, and a database capable of tracking the dozens of nonprofit (and for-profit) organizations that make up HSUS's sprawling financial empire.

The Humane Society of the United States has become the animal right's most powerful player, but it has avoided serious public scru-

tiny for years. HSUS raises nearly \$100 million annually from Americans who largely believe their donations filter down to local pet shelters and improve the lives of dogs and cats. But in 2008, less than one-half of one percent of HSUS' budget consisted of grants to actual hands-on "humane societies" that deal with the thankless task of sheltering unwanted pets.

*"Someone has to ask the hard questions about the Humane Society of the United States, and HumaneWatch will be a relentless source of useful information,"* said

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## NCC RELEASES REVISED PROGRAM ON ANIMAL WELFARE .... con't

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dling live animals (hatchery, growout, catching and transportation, and processing) must have a person in charge of promoting adherence to the guidelines.

- \* Each department must have a disaster response and recovery plan.
- \* Employees who handle live animals must be trained in advance and must receive retraining every year, in languages other than English if necessary.
- \* Addition of a preface stating principles of animal welfare.
- \* Commitment to review the program every two years, beginning with review by scientific advisors in 2011 followed by an industry committee review in 2012.

*"Numerous specific changes were made and metrics revised, resulting in a program that will be more challenging for our companies to comply with," Lovette said. "But we believe this is what our customers expect."*

Among the principles stated in the document are:

- \* Poultry raised for food should be cared for in ways that prevent or minimize fear, pain, stress and suffering.
- \* Guidelines for welfare should balance scientific knowledge and professional judgment with consideration of ethical and societal values.
- \* It is the welfare of the chickens themselves that is foremost, not how humans might perceive a practice or an environment.
- \* Poultry should be treated with respect throughout their lives and provided a humane death when processed for food or when they are euthanized for any other reason.

The NCC Animal welfare Guidelines and Audit Checklist documents are available through the NCC website ([www.nationalchickencouncil.com](http://www.nationalchickencouncil.com)) under 'About the industry'.

## NEW WATCHDOG WEBSITE MONITORS HSUS .... con't

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CCF Director of Research David Martoski. "Nearly 1 million Americans donate money to HSUS every year. And most are completely unaware that they're bankrolling PETA-style propaganda, far-reaching anti-meat campaigns, a huge staff of lawyers, and bloated pension plans for HSUS executives."

In 2008 alone, HSUS put more than \$2.5 million into pension plans—money that its own advertising suggested would be put toward the direct care of animals. (HSUS neither operates, nor is legally affiliated with, any pet shelters anywhere.)

Martosko continued: *"Even the best charities can run off the rails, so it's no surprise the professional dog-watchers need their own watchdog. Donors to the Humane Society of the United States deserve to know exactly how their money is being spent. Humane-Watch will create an open dialogue for farmers, scientists, fashion designers, entertainers, and countless Americans who love both their pets and their chicken sandwiches."*

Checkout the website: [HumaneWatch.org](http://HumaneWatch.org)

### HSUS Finances:

2008 income:	\$85,837,220
2008 budget:	\$99,664,400
2008 assets:	\$162,217,144

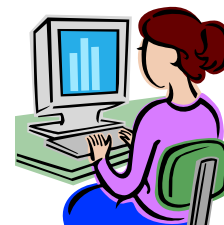


Wayne Pacelle's response when asked about his high salary. "I have very consciously asked the board to keep my salary lower than the industry standard."

Wayne Pacelle—CEO of HSUS  
Salary, with benefits = ~\$252,000

According to Charity Navigator:

- \* The average non-profit CEO salary is ~\$175,000
- \* The National average for CEOs of animal-related charities was near the bottom of the scale at around \$100,000



*"Nearly 1 million Americans donate money to HSUS every year. And most are completely unaware that they're bankrolling PETA-style propaganda, far-reaching anti-meat campaigns, a huge staff of lawyers, and bloated pension plans for HSUS executives."*

David Martoski,  
Center for Consumer freedom Director of Research

*"Our associates work hard to be good environmental stewards, both through the company and with our farm family partners who actually grow the poultry. It's great to see their efforts spotlighted."*

Jim Perdue

## DISCOVERY CHANNEL FEATURES PERDUE'S ENVIRONMENTAL INITIATIVES

Perdue Farms was one of seven companies from around the world featured on the premiere of a new Discovery Channel program about environmental leaders.

The 90-year-old U.S. poultry firm appeared in the opening episode of "The Green Room," which debuted on Saturday, February 13 at 7:30AM. The program highlighted innovative ways the private sector is meeting environmental challenges, from saving energy at the Empire State Building to reusing nuclear fuel in France.

The show features Perdue's first-in-the-nation poultry litter processing plant, along with its unique agreement with the U.S. Environmental Protection Agency to help farmers keep waterways clean. The segment included interviews with Jim Perdue, chairman and chief executive officer of Perdue Incorporated, and Terri Wolf-King, an independent poultry

producer who raises chickens for Perdue on her family farm in Hurlock, Maryland.

*"We are delighted that Perdue's long-standing commitment to good stewardship, dating from the company's beginnings in 1920, got such recognition,"* said Jim Perdue. *"Our associates work hard to be good environmental stewards, both through the company and with our farm family partners who actually grow the poul-*

*try. It's great to see their efforts spotlighted."*

"The Green Room" will initially consist of 13 original episodes that will be rebroadcast. Check local listings for further information.

The Perdue segment of the episode is available through YouTube.com at: [http://www.youtube.com/watch?v=8qo9Sup\\_0yY](http://www.youtube.com/watch?v=8qo9Sup_0yY)



## COMMERICAL FERTILIZER VALUES FOR 2010

Commercial fertilizer values are determined and published each year. A state-wide survey was conducted in December 2009 to determine the averages for 2010.

Under the provisions of Chapter 250.401 of the Kentucky Fertilizer Law, the following unit values are announced for use in determining and assessing penalties of deficient fertilizer. They represent the average of responses from throughout the state for retail value of bulk mixed fertilizers.

The value of most nutrients has decreased since the survey conducted in 2008, the current values are listed in the table to the right.

If you have any questions, please call (859) 257-2785 or email [smcmurry@uky.edu](mailto:smcmurry@uky.edu).

Written by: S. McMurry, Fertilizer Regulatory Program  
Source: **Regulatory Services News, First Quarter 2010.**

NUTRIENT	\$/Unit (20 lbs)
Total Nitrogen (N)	\$9.22
Avail. Phosphate (P <sub>2</sub> O <sub>5</sub> )	\$6.67
Soluble Potash (K <sub>2</sub> O)	
Tobacco (low Cl)	\$15.76
Non-Tobacco	\$ 9.04
Calcium (Ca)	\$12.43
Magnesium (Mg)	\$20.11
Sulfur (S)	\$ 7.44
Boron (B)	\$84.60
Copper (Cu)	\$88.74
Iron (Fe)	\$11.33
Manganese (Mn)	\$24.07
Molybdenum (Mo)	\$18.52
Zinc (Zn)	\$41.05

**Calculation Notes:**

- (1) The N value for DAP & MAP was assigned from anhydrous ammonia (AA).
- (2) The value of P from DAP and MAP was calculated using the assigned value of N from AA.
- (3) The final values for N and P are weighted averages based on FY09 (distributed) tonnage for ammonia nitrate, urea, DAP, TSP, MAP and ammonium sulfate.

# BROILER LITTER PRODUCTION IN KENTUCKY AND POTENTIAL USE AS A NUTRIENT SOURCE



*Poultry manure is an excellent source of nutrients and can be effectively incorporated into most fertilizer programs.*

*It is important to follow best management practices to prevent nutrient imbalances.*

*The key to maximizing fertilizer value is to match the nutrient requirements of the crops with nutrients available in the manure*



Tests conducted in Carlisle County broiler houses yield an estimate of litter produced per year. For houses in which two to five flocks have been produced since the house was last cleaned out, amounts of litter present ranged from 45 to 90 tons. Usually at least six flocks are produced yearly, which results in an estimated total of 100 tons of litter per house per year. An additional eight to ten tons are removed between flocks during the cake removal process, bringing total litter production to 140 to 150 tons per house per year.

Broiler litter is one of the highest value manures in terms of nutrient content. The amounts of nitrogen (N), phosphate (P<sub>2</sub>O<sub>5</sub>) and potash (K<sub>2</sub>O) in litter sampled from Carlisle County broilers houses are shown in the table below.

Broiler litter contains many secondary nutrients and micro-nutrients in addition to N, P<sub>2</sub>O<sub>5</sub>, and K<sub>2</sub>O. Averages of some litter samples taken in North Carolina and Arkansas showed 35 lbs of calcium (Ca), 15 lbs of sulfur (S), 0.5 lbs zinc (Zn), 0.07 lbs of Boron (B), and 10 lbs of sodium (Na) per ton. Some Kentucky samples averaged 33 lbs of Ca, 7.2 lbs of S, 0.6 lbs of Zn, 0.007 lbs of B, 13 lbs of Na, and 12 lbs of chloride (Cl) per ton. Most of these nutrients are not needed for good crop production in Kentucky, but they are also not present in high enough levels to injure a crop. Some could build up to excessive levels over years of heavy litter application on the same field.

Average nutrient content of litter from broiler houses in Carlisle County, Kentucky

Flock no.	Nitrogen (lbs N/ ton)	Phosphate (lbs P <sub>2</sub> O <sub>5</sub> /ton)	Potash (lbs K <sub>2</sub> O/ton)
2	45	54	54
3	48	58	59
4	54	61	61
5	56	65	63

Broiler litter has been shown to reduce soil acidity (or increase pH levels). This may or may not be of benefit, depending on the initial soil pH level. The organic matter contained in broiler litter could be very beneficial, especially where topsoil has been lost due to erosion or machinery operations. Where these situations occur could be the best places to use broiler litter since they are likely to be low in nutrients as well.

Corn is a good crop for utilizing broiler litter. It has a high requirement for nutrients and a long growing season that allows litter to decompose and release nutrients. Field trials in Kentucky have shown that corn responds well to applications of broiler litter. In most cases, four to six tons of well-preserved broiler litter resulted in maximum corn yields.

Pasture and hay fields in Kentucky could benefit from applications of broiler litter. Many of these fields are low in P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O. Broiler litter normally contains 50-60 lbs of each P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O per ton. Broiler litter also supplies N, which can increase yields—especially on grasses.

Source: Excerpts from University of Kentucky factsheet AGR-168

Additional UK Factsheets related to use of broiler litter as a fertilizer, and available through the poultryenergy.com website, include:

- \* Nutrient Management in Kentucky (IP-71)
- \* The Agronomics of manure use for crop production (AGR-165)

\* Sampling animal manure (ID-148)

\* Livestock waste sampling and testing (ID-123)



# SURVEY OF MYCOTOXINS IN KENTUCKY CROPS

Mycotoxins are secondary metabolites produced by certain molds when they grow on agricultural products, including chicken feed. There are several mycotoxins with a wide range in their toxicological effects. Ingestion of mycotoxins can cause poor performance (growth and reproductive), morbidity, and even death. These toxins remain even if the mold-contaminated material is removed from a batch of feed or feedstuff.

Recently the Veterinary Diagnostic Laboratory at Iowa State University has reported a higher than normal incidence of corn affected by mycotoxins across Iowa as well as in samples from Illinois, **Kentucky**, Michigan, Oklahoma, Texas and Wisconsin.

In **Kentucky**, Regulatory Services' field inspectors took samples at feed mills of barley, corn, oats and wheat intended to be used for making animal feeds. The samples were analyzed for the mycotoxins aflatoxins, fumonism, and vomitoxin, as well as crude protein. The results are in the table below.

Data suggest that in the 2009 crop, fumonism in corn grain and vomitoxin in barley and wheat may be our greatest concern when using this grain for animal feed. Mean crude protein in corn grain was just above 7.0% which was 0.2% below samples from the 2008 crop, and 26 samples ranged from 6.6 to 7.4% crude protein.

Monitoring grain quality of incoming crops may be needed more than ever

this year to reduce potential problems with mycotoxins and to correctly balance crude protein in feeds.

Source: *Regulatory Services News, Volume 54:1, Spring 2010*

For more information on mycotoxins, check out the following UK Factsheets. Contact Jacquie Jacob if you need a hard copy

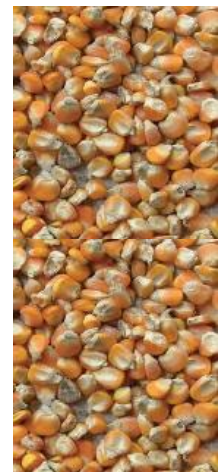
Phone: 859-257-7613 or  
E-mail: jacquie.jacob@uky.edu

\* Fumonisin, vomitoxin and other mycotoxins in corn produced by *Fusarium* fungi (Factsheet ID-121) <http://www.ca.uky.edu/agc/pubs/id/id121/id121.pdf>

\* Aflatoxins in corn (Factsheet ID-59) <http://www.ca.uky.edu/agc/pubs/id/id59/id59.pdf>

Number of positive samples with mycotoxin (aflatoxin, fumonism and vomitoxin) level and percent crude protein in barley, corn, oats and wheat samples tested by the Division of Regulatory Services

Grain crop	Number of samples tested	Mycotoxin positive samples and detection level			Mean Crude Protein
		Aflatoxin	Fumonisin	Vomitoxin	
Barley	6	0	0	6 4.1 to 21.2 ppm	10.90%
Corn	46	3 11.3 to 28 ppb	27 11.3 to 28 ppm	1 2.6 ppm	7.02%
Oats	5	0	0	1 4.9 ppm	9.94%
Wheat	7	00	0	5 2.6 to 4.8 ppm	10.57%



## TIME TO THINK ABOUT HOT WEATHER MANAGEMENT

**Excerpts from an article by Ken Anderson, NCSU**  
(Photos taken during PHES audits)

As the high temperatures and humidity become more common, producers must begin looking at how to keep their chickens cool. High temperatures can affect production efficiency long before mortality happens. Heat stress begins when temperature climbs above 80°F and is readily apparent above 85°F.

When a chicken begins to pant, physiological changes have already started within a chicken's body to dissipate excess heat. At this point, anything that you do to help chickens remain comfortable will help maintain optimum growth rates, hatchability, egg size, egg shell quality, and/or egg production.

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## TIME TO THINK ABOUT HOT WEATHER MANAGEMENT (con't)

(Continued from page 5)

### General hot weather management



Fans should be routinely maintained by cleaning the fan and making sure the pulleys and belts are in good condition and properly adjusted.



*“The value of a summer ventilation system should not be underestimated.*

*If the summer ventilation system is operating properly, it can improve litter quality, reduce dust levels, and improve the flock's rate of gain or production levels.”*

Poultry netting on sidewall or air inlets often will pick up enough dust to restrict air movement and should be cleaned on a regular schedule.

Keeping a reliable, clean and cool source of water in front of poultry is essential for birds to cope with high environmental temperatures. Placement of water pipes near the ceiling should be avoided. Draining a warm water line will allow cooler water to reach the waterer. Poultry operations should have a second well or access to an emergency source of water in case of failure of the primary water source.

Another factor which affects heat gain of a house is the condition of the roof surface. A shiny roof surface can reflect twice as much solar radiation as a rusty or dark metal roof. Roof surfaces should be kept free of dust and rust. Roof reflectivity can be increased by cleaning and painting with metallic zinc paint, or by installing an aluminum roof. These practices are particularly effective for buildings that are under-insulated.

### Equipment and ventilation techniques used to reduce heat stress

During the summer months when the temperature and humidity are high, proper poultry house ventilation is vital to insure the necessary removal of heat and the continued productivity of the flock. There are a number of components of poultry house ventilation systems. These include curtains, fans, fogging nozzles, **evaporative cooling pads**, timers, static pressure controllers and thermostats.

Most ventilation systems can provide an adequate in-house environment when properly managed. If the system design and management fails to satisfy the flock's ventilation needs, stale and contaminated air can build up in the poultry house. Stale air and contaminants, including ammonia, moisture, carbon dioxide, carbon monoxide, and dust, can result in stress and depressed performance. Stress may impair the immune system and increase susceptibility to disease problems. To reduce stale air and contaminant problems, the producer must control air temperature, air speed, and relative humidity through ventilation management.

### Tunnel ventilation

Tunnel ventilation involves moving air along the building axis from inlets to exhaust fans, which provides high air velocities. This in turn increases convective heat loss, reducing the effective temperature that the bird is feeling. An air velocity of at least 500 fpm is likely to produce benefits in most KY broiler houses. Higher air velocity may be useful in some cases.

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## TIME TO THINK ABOUT HOT WEATHER MANAGEMENT (con't)

(Continued from page 6)

### Evaporative Cooling with Power Ventilation



Both misting nozzles and evaporative cooling pads are additional options which can be used in combination with power and especially tunnel ventilation.

Evaporative cooling (cooling air by evaporating water) uses heat from the air to vaporize water. This method increases humidity but lowers air temperatures in poultry houses.

Evaporative cooling can be effective in Kentucky during the hottest part of most days since that is when humidity is lowest. On rare occasions the humidity will remain high the entire day or immediately before or after a storm; evaporative cooling will be ineffective and should not be used during such conditions.

Evaporative cooling pads utilize air that is cooled as it enters the house. This reduces the problem of wet litter and allows evaporative cooling pads to be used on a continuous basis.

The pads need to dry out once each day of use. This is done in the early morning hours when the outside temperatures are lower. The drying allows the adhesive

### Cooling Pads



New 2" Pad



Old 2" Pad

holding the pad together to maintain its integrity and also helps reduce the buildup of algae. To reduce the growth of algae, an algicide can be used in the water for the cooling pads.

In addition, the pads should be washed occasionally to remove dust and sediment. The entire system should also be flushed on a monthly basis to remove the buildup of mineral salts and dirt which accumulates in the pipes and reservoir.

Evaporative pads constructed of aspen or cellulose ranging in thickness from 2 to 6 inches are being used in the industry in conjunction with power ventilation systems. These pads evaporate water at a rate up to 100 gal/min (gpm)/100 ft<sup>2</sup> of pad on a hot, dry day and 200 gal/min (gpm)/100 ft<sup>2</sup> of pad using tunnel ventilation on the same day.

Misting systems have also been used successfully in environmentally controlled poultry houses. Misting systems should have water

filters (to keep nozzles from clogging) and a positive shutoff (to prevent dripping) can provide successful cooling without causing wet litter. The water pressure should be at least 100 lbs/in<sup>2</sup> (psi) (preferably 200 psi) to achieve a fine mist.

The quantity of water going through the misting system and the number and placement of the nozzles are critical design considerations. A total flow rate of up to 1 gal/h per 1000 cfm of ventilation rate can be used in tunnel ventilated houses. The design of the fogging system is critical for tunnel ventilated houses. Cross lines of nozzles, which provide a "curtain" of fog across the house at various intervals, are fairly effective.

Nozzles or lines of nozzles should be located closer together near the air inlets, and then have increased spacings further along the house, ending 60 ft from the exhaust fans.

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## TIME TO THINK ABOUT HOT WEATHER MANAGEMENT (*con't*)

(Continued from page 7)

### SUMMARY

The value of a summer ventilation system should not be underestimated. If the summer ventilation system is operating properly, it can improve litter quality, reduce dust levels, and improve the flock's rate of gain or production levels.

The key to operating any ventilation system is understanding how it works.

In addition, **a good maintenance program of cleaning, adjusting, and monitoring controls for the curtains or inlets will maintain system efficiency.** Fans in any ventilation system should be

frequently cleaned and lubricated, and fan belts should be periodically adjusted, especially during times of heaviest use.

If misting systems are used, they should be serviced periodically to insure a uniform fine particle fog is being generated. **If questions arise concerning the operation of your ventilation system, consult your flock supervisor.**



### What do you want to read about?

We want to know what you want to read about.

Please e-mail topics of interest to [Jacquie.jacob@uky.edu](mailto:Jacquie.jacob@uky.edu)