

North Carolina Poultry Industry Joint Area Newsletter

North Carolina State University
Department of Poultry Science
234 D Scott Hall, Box 7608, NCSU
Raleigh, NC 27695-7608
Telephone: 919-515-5407
Fax: 919-515-7070
Website: <http://www.ces.ncsu.edu/depts/poulsci/>

Issue Editor: Dan Campeau
Issue Layout: Brenda Talton

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Poultry Youth Programs Update

By Melissa Scherpereel

Mountain State Fair Heritage Turkey Show

Turkey Poults will be available for pick up on Saturday May 1st, 2010 for registered participants. The Mountain State Fair contest is primarily for the 18 western counties of NC. However, if space is available after March 24th, youth from other counties across North Carolina may participate. For more information about registration, please contact Tamara Crain at the North Carolina Mountain State Fair Entry Department at Phone 828-687-1414 Ext 210. The show will be held Saturday September, 18th 2010.

<http://www.agr.state.nc.us/markets/fairs/mtnfair/index.htm>



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NC State Fair Youth Market Turkey Show

Update *By Melissa Scherpereel*

Once again, over 300 youth across North Carolina will receive turkey poults from the Department of Poultry Science in late May from our Poultry Science Teaching Unit. Advance registration opened March 1st on our website and the contest is so popular that in less than 13 hours we had filled all 300 spots and began a waiting list! The response was amazing and over half of the youth are first time participants. The 2009 Hen show was a huge success and we congratulate **our 2009 Champions:** Evan Gunter, 13, of Asheboro (Randolph County) sold his grand champion turkey to Harris Teeter for \$4,000. Leah Thomas, 11, of East Bend (Yadkin County) had the reserve champion turkey, which Talley Farms bought for \$2,400. Over 200 youth ages 2 to 19 participated in the show this year. For more information about our turkey show, please visit

<http://www.ces.ncsu.edu/depts/poulsci/4h/turkeys/how/turkeyshow.html>

Poultry Poster Contest Theme announced

By Melissa Scherpereel

Our 2010 theme for the poultry poster contest is "Avian Health and Bio-Security" and posters must be submitted to your local county Extension office for county judging. County winners will be sent to the State competition. For more information on the contest including forms, please visit our website at

<http://www.ces.ncsu.edu/depts/poulsci/4h/postercontest/poster.html>

Poultry Science Summer Institute Applications

online *By Melissa Scherpereel*

Our annual poultry science summer institute will be held August 1 – 5, 2010 at NC State University. Applications are available online at <http://www.ces.ncsu.edu/depts/poulsci/4h/summerinstitute/institute.html> and can be submitted anytime before the May 2nd deadline.

As always, check our website for all of these youth programs and more at www.poultry4h.info or contact Melissa Scherpereel at 919-515-5403.

Are CFLs Right for My Farm? *By Richard Goforth*

With rising energy costs, growers are looking to find ways to reduce their electricity bills without compromising production. One way growers can accomplish this is by installing energy saving lighting. Now that dimmable CFLs (Compact Fluorescent Bulbs) have become readily available in the market, some growers are making the switch but others questioning if these bulbs would have a negative effect on the birds' performance. Some growers have expressed concerns over bulb performance and questioned if they would save enough to justify the increased cost of the CFL bulbs. NCSU Poultry Science Extension conducted a series of field trials to answer some of these questions. One study used a farm with 4 identical houses, two of the houses were fitted with 15W dimmable & 23 W CFLs while the other two continued using 60W & 100W incandescent bulbs. An electrician installed a power meter on only the lighting circuits in one house of each bulb type. Each of the research houses has 50 lights split in 2 rows on 20 feet centers. These light rows are located half way between the side wall and the roof peak and are controlled by a dimmer. The houses are set up for center brooding and there are an additional 10 bulbs per row spaced between the dimmable bulbs in the brood chamber. These bulbs were used only during days 1-21 and were not dimmed. During the course of this trial the CFL house averaged 1451 kWh (kilowatt hour) less than the incandescent house for an average savings of \$116.08/house/flock at \$.08kWh. This research shows CFLs provide a significant cost and energy savings over incandescent bulbs, but are the savings enough to justify the increased cost of the bulbs? The best way to determine this is to do the math based on your farm situation and compare the cost, but let's look at our test farm as an Example: [(# of Bulbs) x (cost of bulbs)] x (# of replacements) = cost of bulbs per year

Using this formula our farm spends \$62.50 on 60W I per year and \$27.75 on 100W I for a total of \$90.25/ house. CFL cost are \$250 for 15W dimmables and \$100 for 23W non dimmable or a total of \$350/house. This gives us an increased cost of \$259.75 but since we save an average of \$116.08 per flock on electricity at 5.5 flocks per year (638.44) The grower saves \$378.69 per house by using the CFLs. These figures are based on using a high quality CFL bulb that has a one year warranty or better and retails for \$5.00. Many growers have had problems with the dimmable CFLs because they purchased the cheapest bulb they can find. A good quality bulb should last 1-2 years and have a replacement warranty for at least a year. The longer life span of these bulbs is what makes the increased investment payoff. Of course, one should expect some bulbs to fail prematurely and when this happens you want to be able to get a replacement bulb without a hassle; so be sure you understand the warranty policy of the retailer and the manufacturer before you make a purchase. One issue we faced during our testing was that of bulb and dimmer compatibility. Some older dimmers may cause problems with flickering, early burnout, and loss of dimming range. These issues can sometimes be dealt with by using one

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incandescent bulb in each circuit or may require an updated dimmer. The upside to replacing a dimmer is that the upgrade is a little more energy efficient as well, and due to the reduction in wattage most growers can decrease the size of their dimmers. For some, this also provides a chance to upgrade to a dimmer linked to their house controller. On our test farm we replaced dimmers after having early burnout issues with a new manual dimmer that retails for \$243.00 to resolve this problem. So even after deducting the cost of a new dimmer the grower still saves (\$378.69 – \$243.00) \$135.69 the 1st year and the dimmer is a one time cost. Replacement with a dimmer able to be linked to the house controller sells for \$481.00 which would have moved payoff to the sixth or seventh flock in the example.

Will CFLs affect broiler performance? During this trial we collected body weights at multiple points and found no difference between the two groups. We were also able to work with integrators to collect final weights and feed conversion from both treatments to determine there were no detrimental effects to production.

I hope that you will take some time to consider your lighting choices and work with your equipment dealer, certified electrician or contact one of the Area Poultry Agents to help you determine if CFLs could save you money in your poultry operation. *According to current law incandescent bulbs will be phased out starting with 100W bulbs in 2012 and progress with smaller wattage bulbs ending in 2014.*

Dry Litter Poultry Requirements

By Keith Larick

According to G.S 143-215.10C, dry litter poultry operations are deemed permitted. This means that while these operations do not have to apply for permits, they do have to follow a list of general requirements. A summary of these requirements is provided below.

1. All dry litter operations over 30,000 birds are required to develop and maintain a Waste Utilization Plan. An example plan and copies of the required reporting forms are available at the following website: http://www.enr.state.nc.us/DSWC/pages/guidance_docs.html. The waste plan must contain a list of fields that will be used for land application, the crops that will be grown, and the maximum application rate of each field.
2. Litter shall not be stockpiled within 100 feet of perennial streams or wells.
3. Litter shall not be left uncovered for more than 15 days. Note that even if the requirements of #2 and #3 are met, it is still the responsibility of the hauler to make sure

(Dry Litter Requirements continued)

that there is no discharge to waters of the State.

4. For land application, a setback of 25 feet from perennial streams must be maintained. However, land applicers should be aware of setbacks from all ditches and intermittent streams. Runoff of litter due to improper land application can lead to discharges which can result in violations or enforcement actions.
5. Litter shall be applied at rates that do not exceed the agronomic rate of the receiving crop. The rates may be based on NCDA&CS soil test recommendations or NRCS Standards (realistic yield expectations). For more information on realistic yield expectations, contact a technical specialist with the Cooperative Extension Service, NRCS, NCDA&CS, or your local Soil and Water Conservation District.
6. Litter shall be sampled as close to the time of application as practical, but at least within 60 days of the land application event. If manure is given or sold to a 3rd party, it is still the responsibility of the generator to conduct the waste analysis, and provide a copy to the 3rd party hauler/farmer.

The State average N content for dry litter as shown in the *North Carolina Agricultural Chemical Manual* published annually by NCSU may be used to calculate application rates in lieu of individual waste analysis; however, waste analysis is still required. Info on waste analysis procedures is available from the Cooperative Extension Service, publication number AG-439-33, *Soil Facts: Waste Analysis*, at <http://www.soil.ncsu.edu/publications/Soilfacts/AG-439-33/>

7. An annual soil analysis is required for all fields that receive litter using the standard soil fertility analysis, available from NCDA&CS. Information on soil sampling procedures is available from the Cooperative Extension Service, publication number AG-439-30, *Soil*
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Facts: Careful Soil Sampling – The Key to Reliable Soil Test Information, at <http://www.soil.ncsu.edu/publications/Soilfacts/AG-439-30/>

8. Recordkeeping for dry litter poultry. All records shall be kept for three years, including but not limited to:
 - Soil test and waste analysis results
 - Land application records
 - Records of litter sold or given to a 3rd party. For litter that is given to a 3rd party, the following information must be maintained:
 - Amount of litter removed
 - Date litter was removed
 - Name, address, and phone number of the manure hauler
9. Lime shall be applied to fields as specified by the Soil Test Report to assure suitable conditions for crop growth.
10. Litter application must be stopped on a field if copper and zinc soil concentrations reach an Index level of 3,000. As a proactive measure, waste generators should begin seeking alternate fields if the level exceeds 2,000.
11. When litter is given to a 3rd party, the following requirements apply:
 - Recordkeeping requirements in #7 above.
 - A copy of the current waste analysis must be provided to the 3rd party
 - Provide a copy of these guidelines to the 3rd party.

For dry litter operations that give away/sell all litter to a 3rd party or hauler:

- If the 3rd party applies litter to land that is owned by the litter generator, then that land must be included in the litter generator's Waste Utilization Plan.
- If the 3rd party hauls all litter away, and applies it to other 3rd party fields, then the litter generator does not need to have fields listed in the Waste Utilization Plan. In this case, a plan is still needed. The plan would be similar to the format suggested in #1 above, but it would just state that all litter is hauled away.

Questions:

Keith Larick
 Supervisor, Animal Feeding Operations Unit
 Division of Water Quality
 (919) 715-6697
 keith.larick@ncdenr.gov

Contacts for the North Carolina Poultry Industry Newsletter

On-Campus Contact

Mike Wineland, Ph.D., Dept Extension Leader
 Dept of Poultry Science, NCSU
www.ces.ncsu.edu/depts/poulsci/
 email: mike_wineland@ncsu.edu
 telephone: 919-515-5529

Field Faculty Contacts

Kathy Bunton, Area Specialized Agent, Poultry

*Iredell, Wilkes and Alexander Counties
<http://iredell.ces.ncsu.edu>
 email: kathy_bunton@ncsu.edu
 telephone: 704-878-3154

Dan Campeau, Area Specialized Agent, Poultry

*Chatham, Alamance, Davidson, Guilford, Harnett, Lee, Moore and Randolph Counties
<http://chatham.ces.ncsu.edu>
 email: dan_campeau@ncsu.edu
 telephone: 919-542-8202
 cell: 919-548-9895

Richard Goforth, Area Specialized Agent, Poultry

Anson, Cabarrus, Montgomery, Moore, Richmond, Scotland, Stanly and *Union counties
<http://union.ces.ncsu.edu>
 email: richard_goforth@ncsu.edu
 telephone: 704-283-3743
 cell: 704-363-2359

James Parsons, Area Specialized Agent, Poultry

*Duplin, Bladen, Columbus, Cumberland, Greene, Hoke, Jones, Lenoir, Onslow, Robeson, Sampson and Wayne Counties
<http://duplin.ces.ncsu.edu>
 email: james_parsons@ncsu.edu
 telephone: 910-296-2143