

The Poultry Engineering, Economics & Management **NEWSLETTER**

***Critical Information for Improved Bird Performance Through Better House
and Ventilation System Design, Operation and Management***

Auburn University, in cooperation with the U.S. Poultry & Egg and Alabama Poultry & Egg Associations
Issue No 45, January 2007

Evaluating Cost Trends to Plan Profit-Saving Strategies

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Knowing what your costs are is an important part of running an efficient business enterprise. In the nearly eight years that www.poultryhouse.com and the Poultry Engineering and Economics Newsletter have been in existence, we have had thousands of inquiries asking about how to manage costs and where money might be most wisely invested in new cost-saving technologies.

This newsletter focuses on the trends observed in poultry farm out of pocket cost items over the past fifteen years and offers some approaches growers can take in controlling these costs while maintaining good flock performance. The eight charts presented on the inside pages show the trends over the last fifteen years in the major costs associated with poultry production, based on data derived from multiple Class A poultry houses on farms in North Alabama. Exact cost figures of course vary by region and the particular situation, and the charts are intended for educational use only. However, our experience indicates the trends shown by these particular charts are fairly typical and provide valuable help in identifying the cost factors that most affect the bottom lines of most U.S. Broiler Belt farms.

If costs are definitely trending either up or down over a number of years, it is reasonable to assume the trend is likely to continue. In deciding on response strategies, higher dollar amounts and steeper rates of increase indicate where priorities should be placed. The most dramatically increasing trends we are seeing are for propane and electricity costs. They indicate that every effort must be made to find ways to reduce usage that will not affect the bird environment or performance in a negative way.

The bottom line of most poultry farms is highly dependent on the level of management and the technology that is being used in that operation. New technologies in equipment, insulation, ventilation, controls, and house sealing are emerging almost daily. Not all new technology will be applicable to a given farm, however. Only technology that has good potential to actually improve the bottom line should be considered for adoption. Growers desiring to keep costs to a minimum must constantly update their management techniques and evaluate new technology on a pay back analysis basis. See page 4 for a suggested step by step procedure for deciding when and where to spend retrofit or improvement dollars.

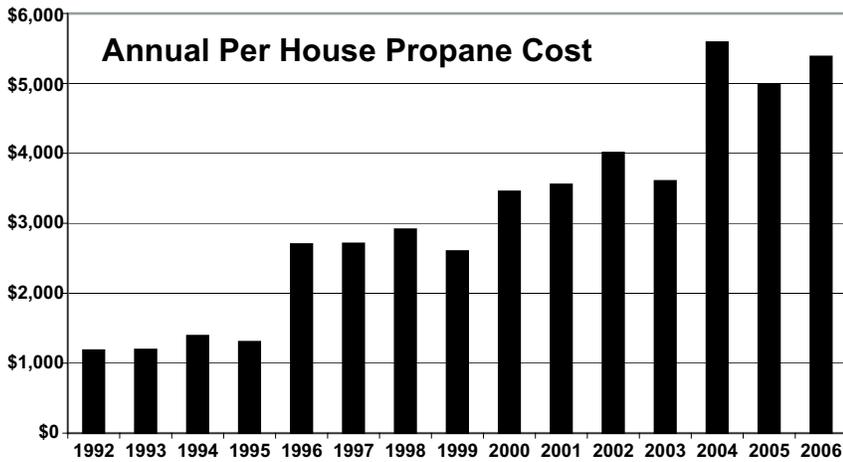
Visit with us at the International Poultry Exposition

The Poultry Housing Team from the Auburn University National Poultry Technology Center will be on hand for IPE in Atlanta, Georgia, January 24-26. Using a team-oriented multidisciplinary approach to poultry engineering, economics and management education and discovery, NPTC is dedicated to maintaining the economic viability of the production sector of the poultry industry by helping growers take advantage of the cost-saving and profit-enhancing potential of proven new technologies. We invite you to come by IPE booth #4469 to discuss technology and economic issues affecting today's poultry operations.

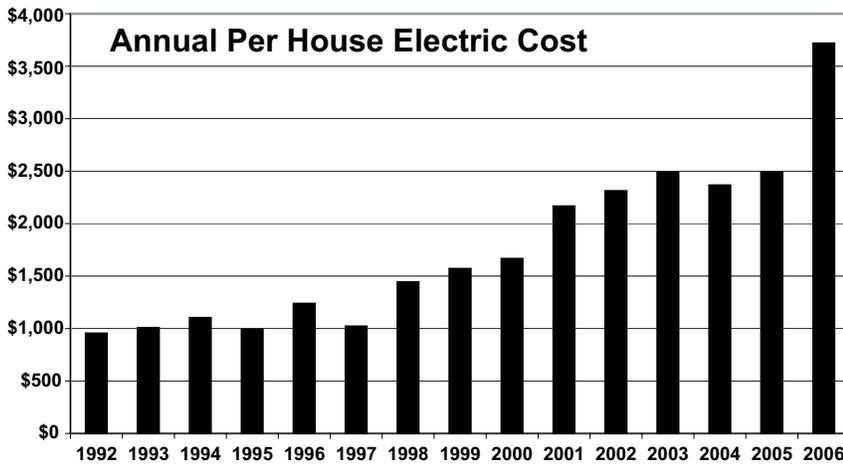
NPTC

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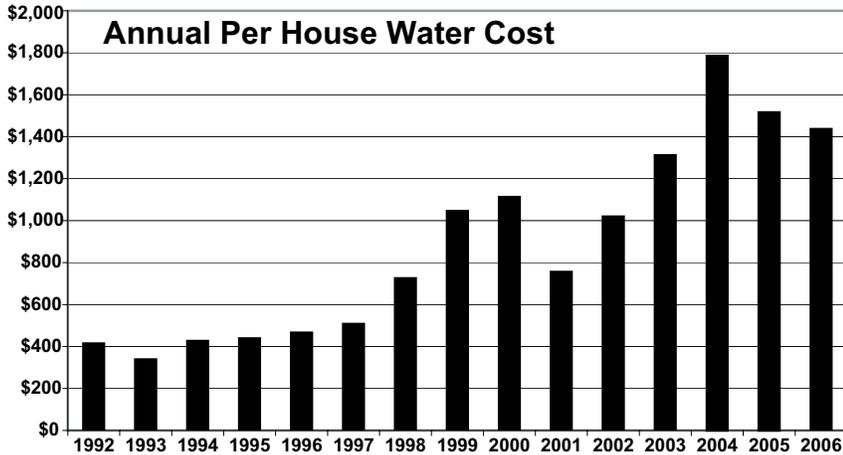
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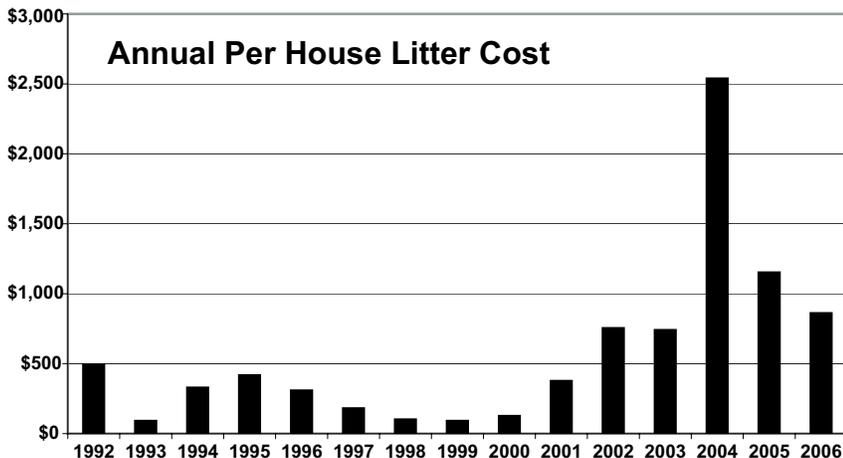
Propane costs show a very steep upward trend as a result of rapidly increasing propane prices and are the largest dollar amounts among costs being tracked. Grower investments in house-tightening and insulation technologies helped to offset some of the recent price increases, holding recent costs below what they would otherwise have been. Forward pricing and bulk buying are management tools that also help keep costs down as prices rise.



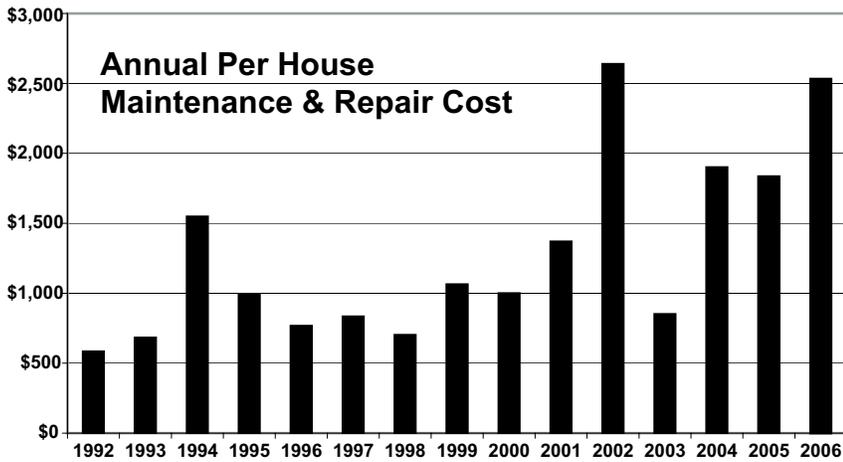
Electricity costs show an increasing trend similar to propane, and are the second largest cost item in dollar amounts. Rate increases granted by Public Service Commissions are responsible for most of the increases over the past several years. However, house tightening and insulation improvements helped offset rising costs of electricity as well as propane. Rising electric rates make fan efficiency and maintenance even more important.



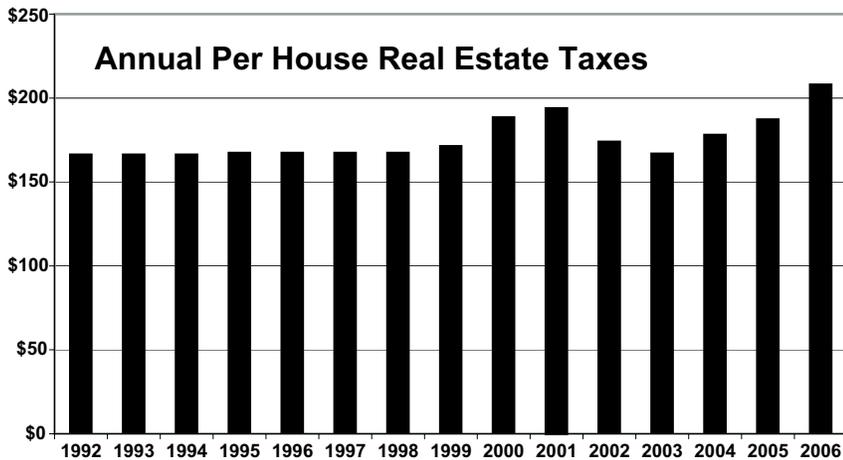
Water rates charged by municipal water associations, which most Alabama poultry farms obtain water from, have risen significantly over the past several years. One of the larger farms used in this data installed a new well in 2005, helping to reduce water costs for 2005 and 2006 despite the increased rates. Rising water costs call for increased attention to evaporative cooling and drinker performance and maintenance.



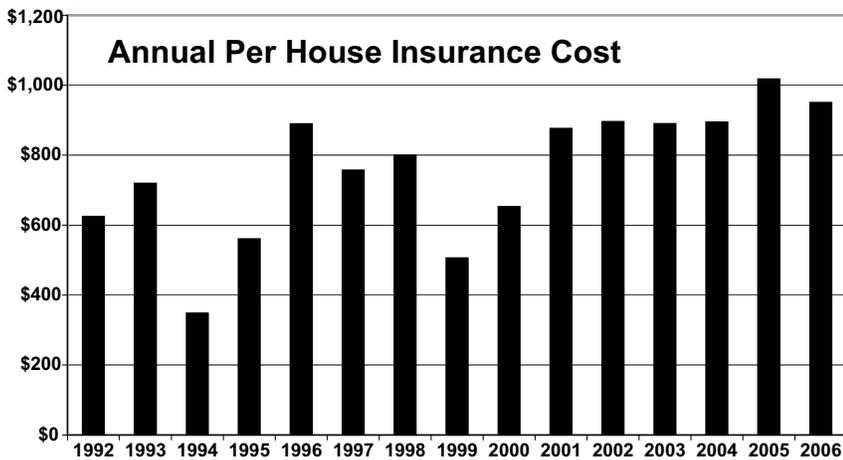
Litter costs, including shavings, labor, equipment, and litter treatments, have shown some upward trend in the last few years. The spike in 2004 was caused mainly by purchase of new litter handling equipment and full cleanouts, which had been postponed for some years. Better management of between flock cake removal and litter conditioning makes it possible to do full cleanouts less frequently, thus holding total litter costs down.



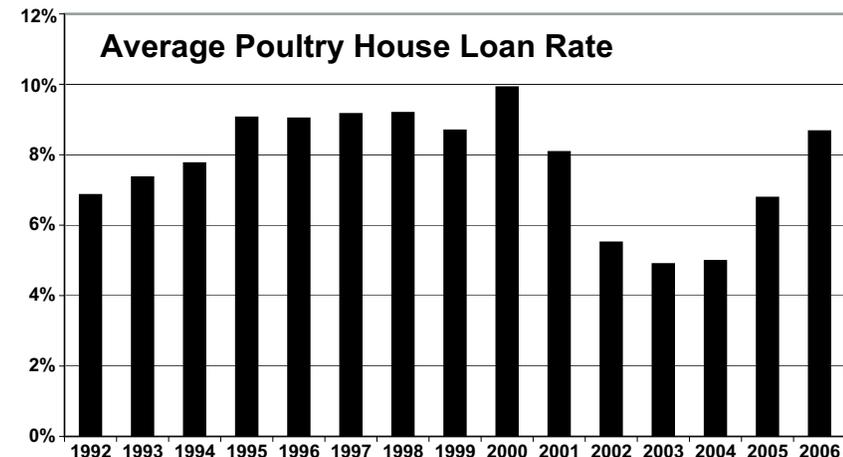
Maintenance and repair expenses may tend to go up as a house ages, but will also vary according to the cost of labor and materials. Any steep upward trend may indicate a house is nearing the end of its useful life unless major renovation is possible. Regular repairs to the structure and scheduled equipment maintenance are an absolute necessity.



Real estate tax expenses are not under the control of the grower, but must be known and planned for. These costs have remained fairly constant; however, they have been creeping up for this set of houses over the past several years.



Insurance expenses have not shown any marked trend upward, but emerging insurability requirements are causing additional expenses for required structural improvements. If improvements lengthen the useful life of the house, the effect on the long-term bottom line may be positive. Growers must understand insurance terms and make good long-term business decisions in buying insurance.



Interest rates (including new construction as well as retrofit loans) dropped for 2000 through 2004. However, loan rates have been rising for the past two years. Interest rates are another cost item affected mostly by general business and economic conditions and not under the control of the grower. It is good business practice, however, to track trends in interest rates and plan accordingly. [Source: Farm Credit System offices in north Alabama.]

The Bottom Line

We focus here on possible major technology investments in either housing renovation or equipment upgrades designed to help keep the typical major operational costs down. The two basic questions to ask are:

1. Is the house in good enough condition so that if I spend the money on the house I will be able to grow chickens long enough to recoup my investment?
2. Will improvements in production performance generate sufficient income to pay for the technology investment?

These questions are not new. They have been around as long as we have been in the mechanized poultry business. Can a twenty year old poultry house be cost-effectively retrofitted for better performance? Yes, especially for retrofits associated with reducing energy costs. Can the same house be retrofitted to perform at the level of a new house? Possibly, but not likely. The economic calculations must be done and the grower must do them himself after he has become well informed with the facts (and the numbers) pertaining to his particular farm situation.

In evaluating possible technology investments follow this basic approach:

1. Determine the total investment (initial costs plus interest) that will be required over the life of a 5-year loan. (We assume a 5-year loan because this is the typical term lending agencies offer for such investments.)
2. Estimate annual maintenance and repair costs that will be associated with the technology and multiply by five (the number of years of the loan) to get the total M & R cost.
3. Add total investment (step 1) and total M & R (step 2) to get the estimated total cost of the improvements.
4. Estimate the annual reduction in operating costs (energy savings, etc.).
5. Estimate the expected annual increase in revenue from improved flock performance; however, do not include projected increases in settlement (they can't be counted on).
6. Add step 4 and step 5 to get the estimated total annual improvement in operating cost that the technology investment is expected to provide.
7. Multiply the total annual improvement (step 6, dollars per year) by five (number of years of the loan) to get the estimated total improvement. If this estimated total improvement is greater than total cost (step 3), the investment will pay back within the loan period and may be justified.

Note: An investment that will not pay back within the loan period might be considered but will cause cash flow problems if the payback period is much longer than the loan term. If longer (or shorter) loan periods are available, substitute the appropriate number in the calculation.

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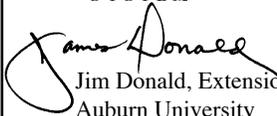


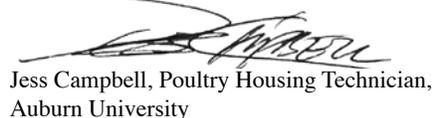
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The Poultry Engineering, Economics and Management Newsletter provides up-to-date information on topics of interest to poultry production personnel, focusing on most effective and efficient uses of modern technology and equipment, with a special emphasis on economic implications. The Newsletter is published six times a year, or as needed to address emerging or special issues. Contact: Jim Donald, Extension Biosystems Engineering, 228 Corley Bldg., Auburn University, AL 36849-5626, (334) 844-4181, fax (334) 844-3548, jimdonald@aces.edu. Published by:


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