Prices for live hogs have increased 80% in the past five years. Grocery store pork prices have risen too, but not nearly as much, only by 30%. Nevertheless, pork prices are high—hitting record levels this past summer. Closer to home, the Kentucky Farm Bureau reported that pork prices rose more than any other food item, up 8% in their quarterly market survey. What’s led to the price increases? And, what is going on at the farm level in Kentucky?

The number of hog farms in Kentucky has declined to 70% of the number 10 years ago, 866 farms, and hog sales declined by 24% to 933,000 head. About 10 years ago, the 2002 USDA Census of Agriculture reported that Kentucky had 1,220 farms with a total of 987,000 swine. Of these, 81 (7%) had more than 1,000 head. According to the most recent census, 59 (7%) had more than 1,000 head. The larger operations dominate— their share of sales remained the same at 92%.

While the number of hog producers in Kentucky has declined, there has been a growth in the number of farms producing hogs on a contract basis. Independent producers accounted for 63% of hog sales in 2012, while contractors accounted for the rest (37%).

Prices are determined by national and international markets, supply, demand and interactions with other meats. According to the USDA, as of June 1, 2014 the number of hogs and pigs on U.S. farms was the lowest in seven years, even though global demand is strong. Pork exports for this year are up about 10%, accounting for more than one-fifth of U.S. production. Pork production tends to go up and down. In 2012, production rose 2%, but then declined slightly in 2013 and will be down another 2% this year. Per person consumption has been trending down, from 50 lbs. per person five years ago to about 45 pounds now.

Hog producers have been facing a very risky environment. Hog profitability is erratic, with very volatile prices. In 2009 they dropped 12%, but then rose 25% the next year. Prices are projected to be up 20% this year, but down again in 2015. Cost of production changes. Corn price is a key input, and prices have varied dramatically, ranging from less than $4 per bushel to more than $8. And there are other issues as well. A surprising disease, only affecting pigs and new to the United States, Porcine Epidemic Diarrhea virus (PEDv) was found in U.S. pigs in May, 2013. The disease killed about 8 million mostly baby pigs, according to Steve Meyer, a private industry analyst. That’s roughly 10% of the hogs produced in a normal year. Because they are baby pigs, it’s a much smaller percent of production but still dramatically reduces total production. And no cure has been found.

Kentucky hog producers’ whose herds have been infected with PEDv have estimated total production losses to be as high as 20% for 2014 based on the number of litters lost. Even with increased profit margins, financial consequences are severe for those whose herds get infected. Mortality rate for piglets born after contracting the virus on the farm is nearly 100%. Sows and older pigs contract the disease but usually recover. When PEDv strikes, the on-farm production cycle is depressed and it takes a few months to return to full production. Potentially more troublesome, anecdotal evidence exists that attempts to immunize the herd through exposure may have a limited effect. Some farms have experienced more than one PEDv outbreak already.

While lots of resources are being put towards researching this disease, a lot of unknowns still exist. The exact source of the disease as well as how it is being spread is still not understood. Those producers who have not been infected are dreading the upcoming winter as the disease thrives in cold temperatures. Kentucky pork producers along with the U.S. pork industry may be battling this disease for several years before herd immunity is built up or a cure is found.

Kentucky’s hog producers face all of these same problems, but reap the profits as well. Iowa State University calculations (reported by Ron Plain and Scott Brown at the U. of Missouri) estimate the typical market hog slaughtered in June cost $56.80/cwt live to raise and earned a profit of $93.04 per head when sold. That breaks the old record profit of $92.35/head set in March. While profits are unlikely to remain at these record high levels, the enterprise should continue to be profitable. Reduced supplies and exports are likely to keep prices at near record levels and corn prices have moderated compared to the highs of a few years ago.

Lee Meyer and Jonathan Shepherd
Get Serious About Budgets

According to the Kentucky Farm Business Management (KFBM) program data, Kentucky grain producers have experienced record high net farm incomes over the last several years. This has been a time of “plenty” for many producers and has provided the resources to allow producers to be somewhat relaxed in their budgeting and spending. Record grain prices and incomes have also caused many costs to increase, especially in the case of land rent. Looking forward to the end of the 2014 marketing year and 2015, grain prices are not expected to be as strong, causing many producers to wonder about their profit potential. With this expected decline, budgeting for each crop becomes vitally important to the sustainability of the farm. When the budget doesn’t pencil out, some hard decisions must be made. A particular area of cost reducing opportunity may lie in the renegotiation of land rental prices.

![Kentucky Grain Farms Net Farm Income](http://farmdocdaily.illinois.edu/2014/07/renegotiating-cash-rents-down-2015.html)

**Start with Expected Revenue**

When creating a budget for the coming year it is important to start with expected revenue. Expected revenue is the money that you think you will receive for the crop when it is sold. This can be calculated by using your average historical yield and an expected sale price. If you will be storing the crop, you will need to reduce the expected sale price by the storage cost or include storage costs in your variable costs. Using realistic yield and price estimates is vital. Planning for the best scenario will not provide you with any margin if yields are not as good or if prices fall. Using prices from the Chicago Board of Trade for the next year are a good starting point, but be sure to complete your budget with considerations of those prices falling (or rising) throughout the growing season.

**Calculate Variable Costs**

Variable costs are the costs that you incur only if you plant the crop. These costs will include seed, fertilizer, chemicals, fuel, storage, labor and several others. Current prices from suppliers in your area should be used to calculate these costs as they vary based on your location, size and field. Variable costs may be your best opportunity to improve your expected returns. A soil sample may help you save money on fertilizer expense, or at least allow you to make the most impact with your fertility dollars. The type and variety of seed that you plant can impact seed cost dramatically. Crop land rent is also considered a variable cost. Across the state we have seen an increase in rental prices with the increase in farm incomes. If prices fall as predicted, rental prices will likely be a key area of renegotiation to allow producers the opportunity to make a profit. A producer with a high percentage of cash rented land that has seen a significant increase over the last few years will be at risk of experiencing low or negative net crop returns. This renegotiation is likely to cause sensitive situations with landlords. Producers need to consider the impact of losing rented ground when cash rent is renegotiated.

**Account for Fixed Costs**

Fixed costs are those costs that you incur even if a crop is not planted. Many of these costs assume that you have land and equipment that you have been using in the past and will continue to have. Even when a piece of equipment is paid for, there is still a cost associated with it. If you plan to replace the equipment at any point in the future, the equipment should be paying a use fee with each crop that is grown. Owned land would be accounted for in a similar way. Many producers forget to account for their own labor as a cost, if the family relies on income from the farm to pay for living expenses, operator labor must be accounted for in the budget. While budgeting is never fun, and can be disheartening when prices are going down, it is an important task to insure that a farm can make a profit and to allow for changes before the money is spent. Budgeting allows a producer to know their break-even cost and then helps to market the crop. A producer who knows the price they need, can ideally lock in a profit making price and not have to worry about selling at the market high. If your budget reveals that you need an unlikely attainable price to make a profit, it is time to go back to the budget and find ways to save on costs, increase revenue, or to evaluate the potential of growing a different crop.

At this point, many producers are not thinking about the 2015 crop. They are still concerned with the maturing and harvesting of the 2014 crop that is still in the field. However, this fall is the time to consider input prices and application rates before prepaying expenses for next year and it is the time to meet with landlords and discuss any needed cash rent adjustments. For more information on renegotiating cash rents you may be interested in this article in the Illinois Farm Docs: [http://farmdocdaily.illinois.edu/2014/07/renegotiating-cash-rents-down-2015.html](http://farmdocdaily.illinois.edu/2014/07/renegotiating-cash-rents-down-2015.html).

Help with budgeting can be found by accessing many of the budgeting tools available through the University of Kentucky Department of Agricultural Economics website publications ([http://www2.ca.uky.edu/agecon/](http://www2.ca.uky.edu/agecon/)) or you can see your local Agriculture Extension Agent.

Jennifer Rogers

The Kentucky Farm Business Management Program (KFBM) has been serving the agricultural industry since 1962 by assisting member farmers track financial performance, determine the profitability of individual enterprises, improve management practices, complete tax returns, set business and personal goals, and make sound management decisions. To learn more about KFBM, visit their website at [http://www.uky.edu/Ag/KFBM/](http://www.uky.edu/Ag/KFBM/).
For over twenty years I’ve counseled Kentucky farm family businesses to conduct business planning meetings around the kitchen table. Get all the family members that are involved in the business from all generations and TALK about where the business is and where you want it to go. Discuss the mission, set some goals, and develop tactics to meet those goals and fulfill the mission.

I’ve even had a story to emphasize the point. It’s about a family discussion to bring a daughter and son-in-law into the farm business with an expansion of the dairy herd and facility upgrade. They set aside a half day for both generations to meet with their farm business management specialist, an Extension dairy specialist, the county ag agent, and their lender. The meeting was held in Mom and Dad’s kitchen. It was a valuable and productive meeting that helped set the stage for the next several decades of the farm. Around lunch time a neighbor came by to pick up a load of hay he’d purchased. As Dad headed out the kitchen door to load the hay the neighbor yelled, “What you doing in the house? You can’t get anything done sitting in the house.” My point in this story is that the family had just spent the most important day for the future of two families and the family business yet the notion persists that “sitting in the house” was “not getting anything done.” Strategic planning is “getting something done.” In fact it’s “getting something important done.”

However, here’s the paradigm shift. After years of suggesting (and participating in) kitchen table discussions, I am suggesting that the meetings should be moved from the kitchen table. While I have nothing against Mom, Apple Pie, or the USA, I do believe that the strategic planning sessions are so important that they should be moved to a neutral location. And the kitchen table is not neutral territory. One of the unique things about family farm businesses is that everything is rolled together…the good, the bad, the ugly, and the beautiful are all sitting there around that table. Furthermore, it always has been, and always will be, neutral territory. One of the unique things about family farm businesses is that everything is rolled together…the good, the bad, the ugly, and the beautiful are all sitting there around that table. Furthermore, it always has been, and always will be, Mom’s territory. Again, this is not about Mom. I love Moms. They are often the cement that holds family businesses together. So, for her sake and the sake of the business, let’s move these meetings out of the kitchen.

This shift in approach has come in the context of renewed interest in family business transition, namely, transitioning the business from one generation to the next, often while multiple generations are active in management. Many families have come to the realization that transition is more than drafting a will to transfer the assets. Long term sustainability of the business necessitates a transition of management as well, and must often consider the need to support two or more generations with the net returns from the business. As part of the Extension education around this issue we have often recommended the formation of a transition team. This team could include the farm’s attorney, accountant, farm business management advisor, the Extension agent, the lender, business mentors, all in addition to the appropriate family members. The team may also include a facilitator who directs the meetings, keeps things on track, and compiles meeting notes and action plans. This process can get complex. It takes time. It is not usually a “one and done” procedure but rather an on-going process that may never be “done.” It needs to take place on neutral territory, away from farm and household distractions. In other words, “not the kitchen table.” Where then? How about an Extension office meeting room, a bank board room, a library meeting room? Assemble the team. Set the time. Set the location. Do the important stuff.

These planning meetings will be among the most important discussions that families will ever undertake. Sometimes they are hard. They will always require hard work and thoughtful consideration. The rewards for insightful and well-guided planning are tremendous. The consequences of a failure to plan can be disastrous.

I realize that many fruitful discussions have taken place at kitchen tables, and on pickup tailgates, and in farm shops; but I’ve become convinced that when futures are at stake, it’s worth taking the time and finding the place to do it right.

Steve Isaacs

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**Welcome Dr. Todd Davis**

Dr. Todd Davis will be joining our department on August 1st as our crop marketing/management extension specialist. The position will focus primarily on grains and will be located at the University of Kentucky’s Research and Education Center in Princeton. Extension programming will include assessing various farm bill decisions for grain farms, crop marketing strategies/outlook, and evaluating risk management options. Dr. Davis obtained his PhD and M.S. degrees in Agricultural Economics from Purdue University and his undergraduate degree in Agricultural Business from Iowa State University. He comes to the Department following a three year stint with the American Farm Bureau Federation (AFBF) in Washington D.C. where he focused on crop outlook, analysis of policies affecting crop producers, crop insurance, and farm income issues. Prior to his employment at AFBF, he was employed at Clemson University from 2001 to 2011. Welcome aboard Todd!
Late Summer Nitrogen Applications to Pastures – Will they Pay in 2014?

We are close to the point where some livestock farmers would normally start to apply nitrogen to tall fescue pastures to boost production levels and stockpile for fall and winter grazing. Since there are many factors that will impact the profitability of this practice, the question at hand is: Under what set of conditions will applying nitrogen to pastures pay this year?

Soil moisture conditions are extremely variable throughout the state right now, with some areas having good to excellent soil moisture and other areas in moderate drought. There are lots of reports of soil moisture conditions changing from good to bad in as little as a five mile distance all through the state. Areas with good soil moisture will have the best response to nitrogen applications.

The price of nitrogen was evaluated on an elemental basis between $.55-.75 per unit ($370-500 per ton ammonium nitrate and $505-690 per ton urea with urease inhibitor), with application rates of 40 and 80 units/acre. Three response rates (low, medium, and high) were evaluated corresponding to various soil moisture and fertility conditions.

Farm size and management practices were assumed to be typical Kentucky conditions: 30 cow herd with late winter/early spring calving. Waste rates were estimated at 25% for both hay feeding and grazing. Forage quality was estimated at 55% TDN for hay and 65% for stockpiled fescue. Machinery and labor costs were estimated at $.09 and $.29 per cow-day for grazing and hay feeding respectively. P and K from the hay were assumed to be recycled back into pastures at a 50% rate at $.40/lb for P2O5 and $.40/lb for K2O.

A range of hay prices were evaluated to determine which prices, if any, would result in profitable nitrogen applications this year. Results appear in the table on page 5. In general, there appear to be considerable opportunities for profitable nitrogen applications this year, mostly in fescue stands with a low clover content (less than 15%). Assuming a medium response rate and nitrogen priced at $.65/unit ($600/ton urea with urease inhibitor), hay prices at or above $60/ton generated moderate to high cost savings. With the low response rate, these stands generated low to moderate costs savings with hay priced at or above $80/ton. With a high response rate, these stands generated high cost savings with just about all combinations of nitrogen and hay prices.

Cost savings occurred less frequently in the mixed fescue-clover stands. With a medium response rate, hay prices needed to be at or above $100/ton to generate even low cost savings. With the high response rate, hay prices needed to be at least $80/ton to generate low cost savings. Additionally, any potential savings in the fescue-clover stands need to be balanced against the potential loss of clover due to N applications. As a consequence, it is advised to target pastures with the highest fescue content before considering nitrogen applications to these mixed fescue-clover stands.

In terms of current soil moisture conditions, this means that in areas with at least decent soil moisture conditions, mostly pure stands of fescue should provide good opportunities for applying nitrogen and stockpiling forage for late fall and winter grazing. In areas that are starting to fall into drought conditions, it is probably better to wait until mid-August to see if conditions improve.

As noted above, hay quality was assumed to be medium-quality, mixed hay with a 55% TDN. There is a lot of hay put up in Kentucky that has a much lower feed value. For each 5% reduction in TDN (e.g. going from 55% to 50%), add $6-9/acre in cost savings for 40 unit applications and $10-15/acre for 80 unit applications. Use the lower part of this range for the medium response rate and the higher part of this range for the high response rate.

For more detailed results, consult the publication “Profitability of Nitrogen Applications for Stockpiling Tall Fescue Pastures – 2014 Guide” that can be found at: http://www.ca.uky.edu/agecon/index.php?p=169

A publication that goes into details on the production side is: AGR-162: Stockpiling for Fall and Winter Pasture http://www.ca.uky.edu/age/pubs/agr/agr162/agr162.pdf

Greg Halich

Activities continue in October when we host an Invitational Quiz Bowl with other AgEcon departments in the southern region and A “Day at the Races" with Alumni at Keeneland. We will also be awarding an educational scholarship for an incoming Freshman.

Keep you eye on our website (www.ca.uky.edu/agecon) for more information!
## Table 1 - Cost Savings of Applying Nitrogen to Late Summer Pastures Kentucky (2014)

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<tr>
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<th>Low Response to Nitrogen</th>
<th>Medium Response to Nitrogen</th>
<th>High Response to Nitrogen</th>
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<tbody>
<tr>
<td></td>
<td>Fescue¹</td>
<td>Fescue-Clover²</td>
<td>Fescue³</td>
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<tr>
<td>Price Nitrogen ($/unit)</td>
<td>Price Hay ($/ton)</td>
<td>40 units N</td>
<td>80 units N</td>
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Note: Results are applicable for ammonium nitrate. For urea, use a lower response rating or a higher effective N cost to approximate volatilization losses.

Note $.55/unit N = $370/ton AmmNit & $505/ton Urea; $.65/unit N = $435/ton AmmNit & $600/ton Urea; $.75/unit N = $500/ton AmmNit & $690/ton Urea

Assumptions Cattle: Spring Calving (late pregnancy in mid-winter); 30 cow herd.

Assumptions Grazing: TDN=65%; Waste=35%; Application cost N = $5/acre; labor cost = $.09/cow/day with weekly cattle move on stockpiled pasture.

Assumptions Feeding Hay: TDN=55%; DMI=2.0% hay+grain; Waste=35%; labor and machinery cost=$.29/cow/day.

Assumptions Nutrient Value of Hay: Assumes 50% of P and K effectively recycled into pasture; $.40/lb P₂O₅; $.40/lb K₂O.

Fescue¹: 15.5 lb avg. dry matter response per lb N (80 lb application)

Fescue-Clover²: 9.9 lb avg. dry matter response per lb N (80 lb application); savings need to be balanced with potential loss of clover due to N applications

Fescue³: 21.1 lb avg. dry matter response per lb N (80 lb application)

Fescue-Clover⁴: 13.3 lb avg. dry matter response per lb N (80 lb application); savings need to be balanced with potential loss of clover due to N applications

Fescue⁵: 28.8 lb avg. dry matter response per lb N (80 lb application)

Fescue-Clover⁶: 17.8 lb avg. dry matter response per lb N (80 lb application); savings need to be balanced with potential loss of clover due to N applications

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**By the Numbers:**

- According to the July 2014 USDA Cattle Report, all cattle and calves in the United States as of July 1, 2014, totaled 95.0 million head, 3% below the 97.8 million on July 1, 2012 (2013 report was suspended due to sequestration).
- Only one in ten years, has U.S. burley acreage varied by more than 6% from its initial pre-buyout level of 100,150 acres in 2005.
- USDA forecasts Kentucky’s alfalfa hay crop will total 180,000 acres in 2014, down 20,000 acres from the 2013 crop, and tied with 2012 as the lowest alfalfa acreage since 1940.