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# KENTUCKY FARM BUSINESS MANAGEMENT PROGRAM STATE NEWSLETTER

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## Corn and Soybean Price Update and Marketing Strategies

*by Steve Riggins*

The grain market was shocked by USDA's October Crop Production Report and World Agricultural Supply and Demand Estimates (WASDE) reports. Grain traders were expecting USDA to raise its projections of corn and soybean crop size for the 2001 U.S. corn and soybean crops. However, they were not prepared for an increase in corn crop size of 192 million bushels and an increase in soybean crop size of 73 million bushels. The average corn yield was increased from 133.5 bu/acre to 136.3 bu/acre, and the soybean yield jumped from 38.2 bu/acre to 39.2 bu/acre.

On the global level USDA raised their forecast of Chinese corn production from 105 million metric tons (mmt) to 108 mmt an increase of 118 million bushels. Most interestingly, USDA left their forecast of Chinese corn exports unchanged at 4 mmt while they increased their estimate of U.S. corn exports from 1.975 billion bushels by 75 million bushels to 2.05 billion bushels.

Weekly corn exports sales and export inspections from the U.S. will be the key market variable to watch over the next several weeks as the market waits on news of domestic use of corn for feed and industrial purposes. With only 5 weeks gone in the new corn marketing season, U.S. sales and shipments have been disappointing and are lagging rates of one year ago. The market will need, soon, to see signs that USDA's forecast of an increase in annual exports of 110 million bushels over last year are achievable.

If exports are strong, the sooner the better, the corn market should be set to produce a harvest low. It is hard to imagine what news is left to take the market lower. After all, total corn supplies are down 355 million bushels from last season, use is projected to be record large at 9.88 billion bushels and carryover stocks are pegged to drop from 1.9 billion bushels to 1.46 billion bushels.

In addition to raising the forecast of U.S. soybean crop size, the real killer in the October WASDE was the increase in projected soybean crop size for next spring for Brazil of 2.5 mmt (92 million bushels) and Argentina 1 mmt (36.75 million bushels). Combined production in Brazil and Argentina is now forecast to total another record setting season of 68.5 mmt (Brazil 41.5 mmt and Argentina 27 mmt) or 2.517 billion bushels. With the U.S. forecast to produce a record large crop of 2.907 billion bushels of soybeans, world supplies will obviously be record large.

The very large crops from South America are expected to somewhat reduce U.S. exports of whole soybean, meal and oil compared to last month's estimates. However, total use of U.S. soybeans is still forecast to be slightly larger than the record use achieved during the recently concluded 2000-01 marketing year.

As in corn, it is hard to imagine what further price depressing news is left for soybeans. However, there does seem to some slight downside price risk left given lows from the past few crop seasons. Very strong weekly export sales and shipment rates for soybeans and a firming of corn prices over the next few days could help set the harvest season low soon.

The main marketing strategies seem to be as follows:

Marketing 2001 Corn and Soybeans

Assumptions:

The low in corn is near or has already occurred: Oct. 12, Dec. $2.075

The low in soybeans is less certain, some risk of checking $4.17-$4.20 area

(Please note, this is not a rank list of preferences)

Corn

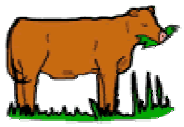
1. Store corn under loan, watch for 30-50 cent recovery use 60 day lock-in on LDP, export pace is key to price recovery, if exports weak, spread carry may disappear, must be prepared to forward price remaining stored grain.
2. Store corn, price for March to May delivery to lock in spread take LDP now.
3. Sell corn if no storage take LDP now buy at-the-money May calls, currently 11 cents.
4. If no on-farm storage, compare option 3 to cost/opportunity of basis or delayed price contracts LDP must be taken before loss of beneficial interest.

Soybeans

1. Store soybeans on farm, put under loan, use 60 day "lock- in" procedure to set repayment rate for loan, don't necessarily do all at one time.
2. If no storage, sell soybeans field direct and collect LDP, take vacation.
3. Same as option 2 except buy May calls if you want to gamble on a price rally between now and harvest of South American soybeans currently $4.40 @ 27 cents and a $4.60 @20 cents.
4. Same as option 2 except sell via basis contract, don't take vacation.
5. Same as option 2 except replace soybeans with purchase of long futures contract, don't take vacation.

## Average 2000 KFBM Dairy Net Returns Encouraging Despite Record Low Prices

*by Colby Blair*



Despite the prevalence of record-low prices in 2000, KFBM Dairy operations on average were nearly able to cover all costs. The KFBM 2000 Dairy Enterprise Analysis shows that the average dairy operator experienced a *Net Returns Over All Costs* of -$73 per cow or -$0.51 per cwt. of milk sold. The average milk price received for these 31 entities was $13.93/cwt. This contrasts with the KFBM 1999 Dairy Enterprise Analysis where the average milk price received was $16.46/cwt.

How can one be encouraged by a net loss? What must be noted here is that the negative $73 return per cow represents *Net Returns Over All Costs*. All costs include both cash and non-cash items. From these two types of costs KFBM further divides total costs into three categories. These categories are *Non-Feed Cash*, *Feed*, and *Non-Feed Non-Cash*. Non-feed cash costs include items such as veterinary, livestock, fuel, repairs, custom hire, utilities, labor, insurance, taxes and interest. Feed costs include both purchased and home raised feed and a charge for pasture consumption. Non-feed non-cash costs include a charge for unpaid labor, machinery and building depreciation, and an interest charge for the investment the operator has in the business. That investment includes the value of the animals, machinery, buildings, feed inventories and building lots. Land interest was computed at an annual rate of 4.5% while the charge against the remaining investments was 9.0% annually.

Noting the aforementioned costs, it is important to realize that one can experience a net cash gain yet still not cover all costs. What the negative $73 per cow shows is that the average operator was unable to fully cover their *Non-Feed Non-Cash Costs*. The KFBM 2000 Dairy Enterprise Analysis showed that the average dairy operation had $2,557 per cow in *Total Dairy Returns*. Average *Non-Feed Cash Costs* amounted to $938 per cow. Average *Feed Costs* equaled $1,236 per cow and Average *Non-Feed Non-Cash Costs* were $456 per cow. This data suggests *Returns Over Feed* were $1,321 per cow. Subtracting the average *Non-Feed Cash Costs* one can see that $383 per cow were still available to return to the operator for unpaid labor, depreciation and interest on investments. Given these results, if the average cooperator in this particular study plans on continuing operations then they are obviously willing to accept a lesser return on the aforementioned items. It does not necessarily mean that the operator is going bankrupt soon. A key ingredient for success in a particular business involves the idea of covering the cash costs that are incurred by that particular business. In the case

of a livestock operation, one also needs to be able to cover the feed costs as well, realizing that home raised feed is not free. The feed has a market value and should be taken into account and charged to the livestock enterprise. Finally after these costs are covered one should focus in on covering the *Non-Feed Non-Cash Costs*. If the operator is seeking long-term sustainability then there needs to be a return to items such as unpaid operator labor, depreciation and investment. Such returns can then be used to facilitate principal payments, family living expenses and investments.

In fact, 42% of the 31 dairy operations included in the KFBM 2000 Dairy Enterprise Analysis experienced a positive *Net Returns Over All Costs*. Operations such as these prove that even in times of low prices received on the farm one can still generate sufficient and even rewarding returns. This is possible because of superior management. That superior management can be the result of many things (cost control, marketing expertise, etc.) but the bottom line is these operators find a way to turn a profit.

**Recession, Terrorism, the S&P 500 and the Yield Curve**

*by David L. Debertin*

September 25, 2001--As of this writing, the S&P 500 index of the stock prices for 500 of the largest US headquartered companies is off just over 26 percent so far in 2001. This decline follows a 9 percent drop for this index in 2000. While we do not know how the index will perform for the remainder of the year, the outlook is very guarded, given recent national and international events. The only comparable declines in the S&P 500 in recent history occurred in 1973, when the S&P lost 14 percent, followed by 1974 when there was a further decline of 26 percent.

There have been many years of negative returns, and many more years in which returns failed to equal what could have been earned on a safe bank certificate of deposit. However, the average compound growth rate for the S&P 500 since 1949 has been about12.3 percent per year even accounting for the recent downturn, considerably higher than bank certificates of deposit or other types of securities such as government bonds would have paid.

As investors sell stocks and take money out of the stock market in response to fears over terrorism, declining corporate profits, higher unemployment and reduced consumer spending, the cash that is obtained from the sale of stocks must be parked somewhere. The so-called "yield curve" illustrates the interest rates paid on "safe" government securities (treasury notes, bills and bonds) with various maturity dates. Under normal conditions, the yield curve is positive. That is, government securities with longer maturities pay the highest interest rates. In the last few weeks, the yield curve has become even more positive than normal. As of today, a thirteen-week treasury bill is paying only 2.3 percent. But the 5 year note is paying 3.8 percent, the 10 year note is at 4.7 percent, and the 30 year bond is at 5.6 percent. These widely varying interest rates reveal that money coming out of the stock market is largely getting parked in treasuries of the shortest maturities driving interest rates down very low on these securities. There is much less interest by investors in treasuries with longer maturities that pay considerably higher interest rates.

Why is this happening? One explanation is that investors are unwilling to commit dollars coming out of the stock market to longer-term government securities because they see the stock market downturn as very temporary. While a 2.3 percent yield on a 13 week treasury is a not very attractive return, it certainly beats more losses in stocks for right now. But, investors may not want to commit to treasuries with longer maturities because they believe that once the stock market settles down, they may want to get right back in again. So the 13 week treasury represents a very temporary investment decision. At the end of the 13 weeks these investors can either decide to go back into the stock market if the market calms a bit, or they can buy another 13 week treasury and wait the market out some more.

If investors were more nearly convinced that the stock market were not the place to be over the longer term, they would be taking advantage of the higher interest rates available further out on the yield curve by buying government bonds with longer maturities. The 5.6 percent interest rate on a 30-year government bond is a great deal more attractive than the 2.3 % on the 13 week bill. Investors aren't doing this to any great degree because they have not collectively decided that they want to be out of stocks over the longer term. This suggests that the current stock market downturn–however severe–could be short-lived once investors holding cash now parked in short term government bonds, money market funds and similar investments start to return. Investors are not short of cash now parked in short-term securities and money market funds that could readily come back into the market.

Holding government bonds with long maturities far out on the yield curve poses its own set of risks right now. While both principle and interest are guaranteed at maturity, the value of these bonds could decline dramatically prior to maturity if interest rates again begin to increase. For example, if the interest rate on a 30-year bond went up to 8 %, then the decline in value of 30-year bond paying the current rate of 5.6 percent would be comparable to the recent decline an investment in the S&P 500.

And higher interest rates in government bonds are not out of the realm of possibility even in the near future. It is generally believed that the Fed has done about what it can to stimulate the economy by lowering interest rates, and eventually interest rates will again start to move upward. Furthermore, it is clear that the costs of dealing with terrorism, the potential for war, and the rebuilding and new security costs could be high, even as tax revenues suffer due to economic decline. The combination of these events could easily lead the US back intro a budget deficit, and with it, still higher interest rates on medium and long term treasuries. All these considerations make longer term government bonds unattractive to a lot of investors right now even though interest rates on short term investments are extremely low and the stock market's volatility reflects uncertain current times.

**Tobacco Quota Buyout Update**
*by Will Snell*

A tobacco quota buyout is a much discussed issue in Kentucky agriculture. Since the 1998 McCain bill debate, several buyout proposals have surfaced. During this period, burley tobacco quotas have declined by more than 50%, while lease prices have increased to record levels. Although the current demand environment has somewhat stabilized, the future of the industry as well as the tobacco program remains in doubt. Consequently, support for a buyout among both quota owners and growers is building. For 2001, much of the discussion centered around the buyout proposal offered in the Presidential Tobacco Commission's report.

Issues:
Many different opinions exist on how to structure a buyout. Relevant issues include:

- Will the quota buyout be voluntary or mandatory?
- What is an equitable level of compensation for quota owners and growers?
- What base year(s) will be selected?
- What will be the time frame for compensation?
- How will buyout proceeds be taxed?
- Will the federal tobacco program be maintained, modified, or eliminated?
- How will quota be redistributed, assuming the program is maintained?
- How will buyout funds be distributed among program participants?
- What will be the effect of a buyout on tobacco farm structure, leaf demand, grower profits, rural economies, and future political support for tobacco farming?

While support for a buyout is growing among farmers and policy makers, the limiting issue remains the potential funding source. Potential sources identified for a buyout include increasing tobacco excise taxes, Phase II funds, and possibly additional company funds in exchange for a package of issues which may include program/price support adjustments, dropping federal/grower anti-trust lawsuits, and support of some sort of FDA regulation. Most buyout packages have included funds for quota owners, growers and tobacco-dependent communities with a price tag generally in the $15-18 billion range. Currently, compensation at this level remains a long shot, but discussions are continuing among farm groups, tobacco companies, and policy makers on the structure and potential funding for a buyout.

What Do Quota Owners/Growers Want From a Buyout If Funds Become Available?
While the answer to this question certainly varies, it appears that there is widespread support for the following:

- A mandatory buyout with compensation of $8.00/lb for quota owners and $4.00/lb for growers based on quota/production levels during a "typical" base year period.
- transfer base to active growers
- keep safety net within a tobacco production control program
- payments spread over a period of time not exceeding 5 years
- keep base initially within the county, with potential to transfer base over time across county lines if base not planted in county of origin.

Economic Impact of a Tobacco Quota Buyout
Traditionally, Kentucky tobacco sales have generally been in the $800 to $900 million range, prior to falling to its current level of $500 to $600 million. Given an $8.00/lb buyout package, based on the average of 1997-1999 quota levels, (as is proposed in the President's Tobacco Commission Report), Kentucky burley tobacco quota owners would receive approximately $650 million annually over a 5 year period. Assuming 50% of the existing growers opt to exit production (and thus receive $4/lb under the President's Tobacco Commission proposal), with the other half being compensated $2/lb to remain in production, yields an additional $250 million annual inflow to the Kentucky tobacco economy. In addition, the existing growers would be marketing a tobacco crop to meet the demand that would evolve following potential program/marketing/regulatory changes. Accounting for all these sources, the Kentucky tobacco economy could swell to around $1.5 billion annually during the first five years following a buyout, assuming the commission's buyout proposal is adopted.

Following the five year transition period, tobacco revenues could conceivably be near or even above recent levels (assuming a demand response given program/marketing changes), but be concentrated in a lot fewer farms and possibly fewer rural communities, depending on how the buyout was structured. In reality, a buyout of some fashion may evolve in the coming years, but it remains a long shot that it will be funded at the level currently being discussed and over such a short time frame.

**Our 2000 Enterprise Analysis Summary Results**
*by Craig D Gibson*

After reviewing the 2000 Enterprise Analysis Summary for cropping activities, we decided that one simple method to present summary data is to examine individual crops by four geographic areas. Recognizing that no producer should make decisions based on one year's results, we also decided to look at various types of returns, including management returns. Table 1 provides information for yellow corn from the 2000 enterprise analysis summary. Total returns include production returns (i.e., yield times price) and loan deficiency payments. No production flexibility and market loss assistance payments are used in calculating total returns. Variable costs include fertilizer, pesticides, seed, drying, machinery repairs, fuel & oil, and machine hire expenses. Other non land costs include utilities, labor, storage, building repairs, machinery and building depreciation, light vehicle expense, insurance, non land debt and equity capital charge, and miscellaneous expenses. Land costs include real estate taxes and a weighted cost based on debt and equity capital on owned land, cash rent paid, and a leasing cost for crop share leasing arrangements.

The comparatively low corn yield experienced in the Pennyroyal area in 2000 is readily apparent. Because we have not reflected crop insurance indemnity payments for corn, various measures of returns for the Pennyroyal area are quite low in comparison with the other areas. This is not to suggest that insurance indemnity payments will relieve the entire difference. Other data suggests that the indemnity payments could increase the various net returns as much as $25 per acre for the Pennyroyal area.

Table 2 provides information for single crop soybeans. With fairly high yields, the Ohio Valley and Central Kentucky areas realized better returns than the Purchase and Pennyroyal areas. None of the respective areas realized returns over variable costs for single crop soybeans as large as yellow corn. Only Central

Table 1. A Snapshot of Per Acre Yellow Corn Costs and Returns by Area

| | Purchase | Pennyroyal | Ohio Valley | Cent. KY |
|---|---|---|---|---|
| Yield | 135 | 107 | 154 | 153 |
| Total Returns | $ 350.98 | $ 286.80 | $385.98 | $375.91 |
| Variable Costs | 149.17 | 154.03 | 161.41 | 152.93 |
| Returns Over Var. Costs | $ 201.81 | $ 132.77 | $ 224.57 | $ 222.98 |
| Other Non land Costs | 105.09 | 118.38 | 101.63 | 101.06 |
| Returns to Land | $ 96.72 | $ 14.39 | $122.94 | $ 121.92 |
| Land Costs | 82.67 | 96.02 | 91.08 | 78.05 |
| Management Returns | $ 14.05 | ($ 81.64) | $ 31.87 | $ 43.87 |

Table 2. A Snapshot of Per Acre Single Crop Soybean Costs and Returns by Area.

| | Purchase | Pennyroyal | Ohio Valley | Cent. KY |
|---|---|---|---|---|
| Yield | 38 | 38 | 47 | 52 |
| Total Returns | $ 214.10 | $ 234.27 | $ 281.59 | $ 298.40 |
| Variable Costs | 81.97 | 103.52 | 107.30 | 114.17 |
| Returns Over Variable Costs | $ 132.13 | $ 130.75 | $ 174.29 | $ 184.23 |
| Other Non land Costs | 80.47 | 90.46 | 92.80 | 96.55 |
| Returns to Land | $ 51.66 | $ 40.29 | $ 81.49 | $ 87.68 |
| Land Costs | 73.28 | 89.82 | 81.15 | 74.81 |
| Management Returns | ($ 21.62) | ($ 49.53) | $ 0.34 | $ 12.87 |

Table 3. A Snapshot of Per Acre Wheat\Double Crop Soybean Costs and Returns by Area.

| | Purchase | | Pennyroyal | | Ohio Valley | | Central Kentucky | |
|---|---|---|---|---|---|---|---|---|
| | Wheat | DC Beans | Wheat | DC Beans | Wheat | DC Beans | Wheat | DC Beans |
| Yields | 55 | 31 | 65 | 30 | 81 | 37 | 64 | 24 |
| Total Returns | $161.20 | $189.45 | $189.25 | $179.90 | $260.83 | $213.89 | $156.16 | $151.80 |
| Variable Costs | 106.09 | 74.83 | 103.24 | 91.27 | 100.83 | 92.35 | 93.96 | 73.36 |
| Returns Over Var. Costs | $ 55.11 | $114.62 | $ 86.01 | $ 88.63 | $160.00 | $121.54 | $ 62.20 | $ 78.44 |
| Other Non land Costs | 74.23 | 89.18 | 89.18 | 77.56 | 70.29 | 73.11 | 73.37 | 59.90 |
| Returns to Land | $ -19.12 | $ 38.32 | $ - 3.17 | $ 11.07 | $ 89.71 | $ 48.43 | $-11.17 | $ 18.54 |
| Land Costs | 38.05 | 36.17 | 45.04 | 43.96 | 39.09 | 38.19 | 36.44 | 35.34 |
| Management Returns | ($57.17) | $ 2.15 | ($48.21) | ($32.89) | $ 50.62 | $ 10.24 | ($47.61) | ($16.80) |

Kentucky realized returns to land for single crop soybeans that is greater than yellow corn. This is due to the large soybean yield of 52 bushels per acre.

Table 3 presents information for wheat/double crop soybeans. The double cropping program has been on the decline in recent years due to poor wheat prices and in some cases, poor yields. Land use percentages for wheat/double crop soybeans were as follows: Purchase - 27.9%; Pennyroyal - 31.2%; Ohio Valley - 1.8%; and Central Kentucky - 8.1%.

For wheat/double crop soybeans, combined returns over variable costs were greatest in the Pennyroyal and Ohio Valley areas. These areas had the largest wheat yields. The Ohio Valley and Purchase areas realized the best double crop soybean yields and thereby realized the best returns for double crop soybeans.

Overall, the Ohio Valley area showed the largest variable costs across each crop. They also showed the highest yields. The higher returns, due to yields, more than compensated for the larger variable costs, thereby showing the largest returns over variable costs with single crop soybeans as the exception.

Producers normally base annual crop planting on expected returns above variable costs. It is ironic that the Ohio Valley area showed greatest returns with double cropping, but had the least amount of land devoted. However, the Ohio Valley area may have had different results had a larger amount of land been devoted to double cropping. Their 5-year yield averages are 62 and 31.8 bushels for wheat and double crop soybeans, respectively.

Returns to land give a longer term perspective to profitability of crops as related to land purchases or renting land. Because “non cash costs,” such as depreciation and interest charges on equity capital, are deducted in determining these returns, one should not interpret these returns as cash returns. However, over a longer term period, returns to land does help answer questions related to how much cash rent one can afford or how much is available to make land payments.

Table 4 provides information on the average per acre non-loan deficiency government payments and average cash rent paid. We provide these data in that they may be used to adjust management returns as calculated in Tables 1 - 3. For example, in Table 1, management returns for the Purchase area are $14.05. Adding the non-loan deficiency payments, management returns grow to $57.08 per acre ( $14.05 + $43.03). We also provide these data in that the government payments are considered in renting and purchasing land.

Table 4. Per Acre Government Program Payments Other Than Loan Deficiency Payments and Average Cash Rent Paid.

| | Purchase | Pennyroyal | Ohio Valley | Cent. KY |
|---|---|---|---|---|
| Govt. Payments | $ 43.03 | $ 47.35 | $ 35.22 | $ 25.58 |
| Avg. Cash Rent | $ 52.28 | $ 85.69 | $101.70 | $ 58.01 |

Land cost data vary dependent upon land ownership and rental arrangements. We provide cash rent paid data to illustrate this point. For the Ohio Valley area, land costs reported in Tables 1 - 3 show land costs as $91.08 (yellow corn), $81.15 (single crop soybeans), and $77.28 (wheat/double crop soybeans). In contrast, average cash rent paid is $101.70 per acre. Management returns would be lowered for an individual producer that cash rented all land and paid the average cash rent amount. The reverse is true for Purchase and Central Kentucky areas. Does this suggest that producers are "bidding" non-loan deficiency payments into cash rent bids and/or the price of land in some areas? I imagine the provisions of the new farm bill will help answer this question!

We provide these data to help membership analyze their farm business. Specialists can assist if needed. As always, the presented data are averages and may not consistently reflect individual situations. Please treat these data accordingly

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