

KENTUCKY FARM BUSINESS MANAGEMENT PROGRAM STATE NEWSLETTER

Vol. 6, No. 2
 August 28, 2002

Inside:

Application of Farm Bill.....1
 Tobacco Buyout Update.....4
 Grain Marketing.....5
 2001 Net Farm Income.....7

***Kentucky Farm Business
 Management Program***

Will Snell
 Extension Coordinator
 859-257-7288

Bluegrass Association
 Colby Blair
 859-879-6809

Lincoln Trail Association
 Rick Costin
 270-737-4799

Ohio Valley Association
 Craig Gibson
 270-827-1395
 Suzy Martin
 270-685-8480

Pennyroyal Association
 Dave Heisterberg
 Brian Lacefield
 Terry Moss
 270-886-5281

Purchase Association
 Russ Morgan
 270-443-6634

Application of the 2002 Farm Bill

Craig Gibson

Anyone that enrolls in the 2002 Farm Bill must make decisions relative to acreage and yields. Whether acreage bases are maintained from the 1996 Farm Bill or changed to reflect the past four-year crop plantings is one element of the sign-up process. This is a “one-time” election. Farm Service Agency currently makes five options available in determining the direct and counter-cyclical payment (DCP) base acreages. Unfortunately, the simplest option may not provide the maximum annual program payments.

Factors Affecting Your Optimal Option

Direct Payments. Direct payments are based on a farm’s “program yield.” The 2002 Farm Bill establishes the payment rate for each commodity as given in the table below. It also establishes the methodology to establish the program yield for soybeans (i.e., about 78% of the farm’s average four-year yield.). In the following table, the “program yield” is hypothetical. In that each farm has a different yield, established from prior years, it is only used to illustrate which crops result in the greatest direct payment per acre. Because corn and sorghum have the highest direct payment, preservation of these crop bases is likely the best choice. Soybeans have the nearly the lowest direct payment. Therefore, it is unlikely that anyone would increase the soybean base by reducing the corn or sorghum base.

Table 1. Expected Direct Payments (DP) by Crop

Crop	Program Year	Program Yield (Example)	Payment Rate	Payment per Acre (Example)
Corn	2002-03	100	\$0.28	\$ 28.00
Soybeans	2002-03	30	0.44	13.20
Wheat	2002-03	40	0.52	20.80
Sorghum	2002-03	75	0.35	26.25
Barley	2002-03	50	0.24	12.00

Counter-cyclical Payments

Payments as related to commodity prices. Counter-cyclical (CC) payments are designed to replace the market loss assistance (MLA) payments from past years. CC payments are the result of the national average price falling **below** the effective price. The effective price is the **greater** of the loan rate or the target price minus the direct payment rate.

When the national average price for each commodity is above the loan rate, the counter-cyclical payment rate is reduced from the maximum rate. When the national average price is above the target price minus the direct payment rate, there is no counter-cyclical payment. For example, if the national average price for corn is \$2.40, there is no counter-cyclical payment for corn in that the price is greater than \$2.32 (i.e., Target Price, \$2.60, minus the direct payment, \$0.28, equals \$2.32).

Yield and price relationships of program crops obviously influence the decision model of selecting the optimal option. A producer's yield is determined from actual production during 1998 - 2001. Annual average market prices determine whether counter-cyclical payments become available. The following approximates the national average price for common program crops since 1990.

Table 2. National Average Prices

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Avg.
Corn	2.28	2.37	2.07	2.50	2.26	3.24	2.71	2.43	1.95	1.82	1.85	1.91	2.28
Wheat	2.61	3.00	3.24	3.26	3.45	4.55	4.30	3.38	2.65	2.48	2.62	2.78	3.19
Soybeans	5.75	5.58	5.56	6.40	5.48	6.72	7.35	6.47	5.02	4.63	4.55	4.30	5.65

The minimum effective prices for corn, wheat, and soybeans are \$2.26, \$3.32, and \$5.44, respectively. Prices whereby at least some counter-cyclical payment amount would have been paid are highlighted in bold. A simple probability of these historical prices reveals a 40% probability that some CC payment will be available for corn. For wheat and soybeans, the probability levels are 66.7% and 33.3%, respectively. The probabilities of the maximum CC payment for corn, wheat, and soybeans are 33.3%, 41.7%, and 25% for corn, wheat, and soybeans, respectively. However, market analysts feel that existing trends in world production of feed grains and oilseeds distort the use of historical prices as a fair indicator of the likelihood of CC payments for each crop. The continued expansion of soybean production in South America is one such trend. Regression analysis suggests that 2003 soybean prices will fall below \$5.00 per bushel with weather cooperating in North and South Americas. This price level will yield a CC payment for soybeans. For planning purposes, given world production trends, it is likely more accurate to use a probability of 40% for a maximum CC payment for soybeans or a probability of 66.7% in anticipation of a CC soybean payment of some amount.

Payments as related to program yields. Counter-cyclical payment program yields will be determined by county average yields as determined by the National Agricultural Statistics Service (NASS) **or** from production history from the 1998 - 2001 production years. (Note: Yields may only be updated if program base acreage is updated. Yields should only be updated when it is to the advantage of the producer.) Although there is much discussion in what documentation will be necessary to "prove" yields, it is highly likely that producers will have to provide documentation at some point in time. Assuming that the yields are documented, the program yields are determined through the "70%" option or the "93.5% option."

Table 3. An example of the "70%" Option for Corn.

Association	1996 Program Yield	1998 Yield	1999 Yield	2000 Yield	2001 Yield	Four Year Avg.	70% of Difference	2002 Program Yield
Purchase	100	120	114	136	144	128.50	20.0	120.0
Pennyroyal	100	135	124	108	159	131.50	22.1	122.1
Ohio Valley	100	116	122	156	154	137.00	25.9	125.9
Linc. Trail	100	125	104	136	146	127.75	19.4	119.4
Louisville	100	124	102	149	128	125.75	18.0	118.0
Blue Grass	100	119	59	125	130	108.25	5.8	105.8

“70%” Option - For this option, begin with the current program yield under the '96 farm bill. Add to this program yield, 70% of the difference between the last 4-year average yield and the 1996 farm program yield. Table 3 is an example from data from our six Kentucky Farm Business Management (KFBM) associations:

“93.5%” Option - Unlike the “70%” option, 1996 program yields are not used in the calculation of counter-cyclical yields. Only the actual production averages of the last four years are used. For this option, take 93.5% of the average of the last 4-year yield for each crop to find the counter-cyclical yield.

Continuing with the same data as used above, a simple calculation of 93.5% of the four year averages results in 2002 program yields as follows:

Purchase	$128.5 \times 0.935 = 120.1$	Lincoln Trail	$127.75 \times 0.935 = 119.4$
Pennyroyal	$131.5 \times 0.935 = 123.0$	Louisville	$125.75 \times 0.935 = 117.6$
Ohio Valley	$137.0 \times 0.935 = 128.1$	Blue Grass	$108.25 \times 0.935 = 101.2$

Dependent on which association data used, results differ in which option results in the largest program corn yield. In summary, the following conclusions are reached:

Purchase	93.5% Option	Lincoln Trail	Either Option
Pennyroyal	93.5% Option	Louisville	70.0% Option
Ohio Valley	93.5% Option	Blue Grass	70.0% Option

Soybean program crop yields result from different methodology. This is due to soybeans having never been a “program crop” in previous farm programs. Oilseed program direct payment yields are determined based on a farm’s 1998 to 2001 average yield multiplied by the national average yield for 1981 to 1985 (~30 bushels), divided by the national average yield for 1998 to 2001 (~38 bushels). In effect, this reduces the payment yield of soybeans to 78 percent of the 4-year average. In the event of absence yield documentation, 75% of the NASS county average yield is used instead of actual yield history before the 78% factor is applied. Obviously, this is a substantial “penalty” in soybean direct payments for most farmers!

Based on KFBM data, a soybean program yield can be calculated by association. The following table reports the results for the two methods available to establish direct payment program soybean yields. Please be aware that county membership distribution within areas does influence results. A simple average of the NASS county yields was used to determine each area’s four-year average yield. In contrast, each area’s membership distribution bias the actual production “average” yield. Regardless, the table illustrates the impact on program payments if 75% of NASS yields are used instead of actual production yields!

Table 4. An Example of Soybean Program Yield Determination.

Association	Four Year Actual Yield Avg.	78% of Average Yield	75% of Four Year NASS Yield Average	78% of 75% of NASS Yield Average	Direct Payment Yield Difference	Direct Payment Dollar Difference
Purchase	38.7	30.2	22.0	17.2	13.0	\$ 5.72
Pennyroyal	28.4	22.2	22.1	17.3	4.9	2.16
Ohio Valley	39.0	30.4	28.0	21.9	8.5	3.74
Lincoln Trail	35.4	27.6	24.5	19.1	8.5	3.74
Louisville	33.4	26.1	25.8	20.1	6.0	2.64
Blue Grass	36.6	28.5	25.5	19.9	8.6	3.78

Wheat provides an interesting dilemma in evaluating the 2002 program sign-up. Many farms have wheat base carried into 2002 from the former program while having no wheat planting history during 1998 to 2001. The Pennyroyal, Purchase, and Louisville areas are exceptions. Due to the potential direct and CC wheat payments, many farms may not wish to update bases based on their 1998 to 2001 plantings. At the same time, KFBM data suggests that committed “wheat producers” will likely want to update bases and CC payment yields. KFBM average wheat yields are higher than NASS county wheat yields. This indicates a benefit in using production history when updating yields.

Loan Deficiency Payments (LDPs). Crops on farms that were not eligible for LDPs on the 2001 crop due to non-program participation are now eligible. This is retroactive to the 2001 harvest period. Any producer that operated farms that were not participating in the 1996 Freedom to Farm program should check with their Farm Service Agency county office for further details.

Loan Deficiency Payments do not influence the decision model for the 2002 Farm Bill sign-up. Loan Deficiency Payments are not calculated by base acreage or program yields. They will continue to be influenced by annual planting, production, and county loan rates.

General Conclusions and Observations

Program yield, acreage bases, and price expectations influence the “sign-up” alternative that results in the greatest program payments. Expectations of counter-cyclical payments are fairly important as well as yield relationships among crops. The CC payments are not guaranteed! The following conclusions are based on KFBM Program data. These data are not substitutes for a producer’s own records and analysis for each farm.

- Update or preserve corn and wheat bases when possible. Do not sacrifice these bases with soybean acreage.

- Most producers will want to use their own production history instead of 75% of the county NASS yields. Based on KFBM data, updated yield history will influence counter-cyclical payments as much as \$4 per acre for corn and \$7 per acre for wheat. Soybean counter-cyclical payments may be increased as much as \$3 per acre.

- Two methods are available in “updating” yields. A majority of KFBM members will want to use the “93.5%” method. Data suggest that if production history falls below 90% of average KFBM yields, the “70%” method should be used.

- This program sign-up is the most complex I have ever seen. This is a significant management decision that should be augmented with the decision tool developed by the Department of Agricultural Economics. Your local specialist can be of assistance in making in your decision and with other related Farm Bill items not covered in this article.

Web Sites

Web sites to keep informed concerning the 2002 Farm Bill:

Farm Service Agency

www.fsa.usda.gov

University of Kentucky/Agricultural Economics

www.uky.edu/Ag/AgEcon/farmbill/

Tobacco Buyout Update

Will Snell

Currently four different tobacco quota buyout bills have been introduced in the U.S. Congress. A review of these bills, along with other materials, can be assessed online by clicking on “Policy” on the Tobacco Economics website located at: <http://www.uky.edu/Ag/TobaccoEcon/>.

What’s happening? Currently congressional members are back home in their districts as part of the summer recess. Obviously, tobacco-state lawmakers are hearing a lot about the widespread farmer support for a quota buyout. While offering their support as well, congressional members are quick to point out the challenges that they face in pushing this through Congress, especially in 2002. Congress will reconvene from its August recess on September 4th. Undoubtedly, the ongoing war on

terrorism, homeland security, and appropriations bills will occupy a lot of Congresses’ time leading up to the break for the November elections. It remains unclear what will be on the congressional agenda when the House and Senate reconvene after the fall elections. Given the congressional timetable, the controversy surrounding various tobacco quota buyout proposals, and the likely need to accompany any sort of buyout with FDA legislation, a buyout occurring in 2002 remains very unlikely. Nevertheless a buyout is getting some attention outside of the tobacco growing regions – some positive and some negative.

On the negative side, a recent Congressional Research Service report pointed out that:

“If the (tobacco) manufacturers could save \$0.50/lb on their 2002 purchase intentions of 543 million pounds (includes both burley and flue-cured), the

savings would amount to \$272 million. At this rate, it would take tobacco buyers at least 55 years to offset the cost of a buyout.”

Of course this statement does not take into account that a user fee, if adopted to pay for a buyout, would almost assuredly be passed on immediately to the consumer and thus create an economic windfall for the tobacco companies on not only domestic purchases, but also international purchases as world prices would respond to lower U.S. prices. (Consequently this is a major concern of the health groups in this debate.) Ideally, though U.S. growers would also benefit in the post-buyout period by demand responding to a more competitive U.S. price.

Another issue that may cause some concern over a buyout is a statement shared recently by one of the major U.S. tobacco companies to members of the U.S. Congress. According to this letter, “With an \$8/\$4 buyout, the average payout for quota owners would be approximately \$32,940 per acre based on 2000 acreage. When compared to the peanut quota buyout or recently approved commodity program payments, these payments dwarf what other growers are scheduled to receive. For example the peanut quota buyout will pay \$1,687 per acre, rice will pay \$569 and soybeans \$14.08.

These data obviously do not take into account cost of production differences or the fact that these traditional program crops have in the past, and will continue in the future to receive government payments, while under a buyout, tobacco quota owners and growers would forfeit Phase II payments. Nevertheless, these data will certainly be used to argue that current quota owner/grower compensation levels specified in various buyout bills are too high.

On a positive note, the peanut quota buyout, as part of the 2002 farm bill, does set a precedent for the federal government intervening to implement (and fund) a quota buyout. Some have incorrectly stated that this is a buyout of the peanut program. It is not! The peanut program is going through some abrupt changes with the buyout of quota and the elimination of price supports. But the traditional peanut program is simply being replaced with a new program consisting of marketing loan benefits (e.g., LDP's), direct and counter-cyclical government payments. While the new program benefits for peanuts will continue to be funded by taxpayer funds (something that is likely not going to happen for tobacco), it does provide some track

record of the government involvement in compensating quota holders for an asset to modify a quota/price support program.

The tobacco farm groups continue to have dialogue with the tobacco companies, health groups and lawmakers. However, differences of opinion still publicly exist within and across the groups on issues such as FDA control, funding sources/levels, and the existence of a tobacco program following a buyout. A great deal of unity must exist among all groups for this type of legislation to have a chance in the U.S. Congress. Thus, the wait continues! However, most still anticipate that this legislation will receive congressional debate. Hearings may be scheduled as soon as September 2002. And if the legislation is not passed in 2002, it is expected to be on the congressional docket when Congress reconvenes in 2003.



West Kentucky Grain Market Project Monthly Market Update, August 19 & 23, 2002

Steve Riggins

August 19th

The market has now had one full week to evaluate USDA's August reports and the effects of weekend rain. The consensus seems to be that soybean yields still have a strong chance to improve relative to the August Crop Report whereas it is less clear that corn yields will improve. Additionally, it is becoming clearer that U.S. corn export pace will be important in sustaining any further price rally.

The weekly Crop Progress Report by USDA indicated that corn conditions improved slightly for the entire U.S. crop with the percent of the crop rated as good and excellent combined improving from 39 percent last week to 40 percent this week. States showing the most week-to-week improvement in the good+ excellent categories combined included: Illinois + 7 %, Kentucky +7 %, Minnesota +10%, Michigan + 4%, South Dakota + 4%, Wisconsin +3%, and Iowa + 2%. States

showing a continuation of deteriorating crop conditions include: Indiana, Kansas, Missouri, Nebraska, North Carolina, and Pennsylvania.

The report also indicates that soybean crop conditions improved compared to last week's data. The combined good plus excellent categories were reported at 44 percent, up 2 percent from last week. The greatest improvement was registered in Illinois, Arkansas, Iowa, Kentucky, Michigan, Mississippi, Tennessee, and Wisconsin. The only State with a significant drop in soybean condition was North Carolina which fell from 41 percent good + excellent to 35 percent good + excellent.

August 23rd

In a weather market it does not take much change in crop expectations to cause significant price changes. However, it is also important to note that by weeks end the market had not give up completely on the idea of crop supplies eventually becoming smaller. It is difficult to imagine what source of data or authority could be so compelling that traders would decide there is nothing to worry about on the supply side before the release of the next USDA crop report on September 12.

There has been much discussion in the farm press about the likely price pattern for the marketing year that will start on September 1, 2002. Some argue this will be a classical short-crop/long-tail market driven by a drop in supply. Others claim that demand is now so strong that prices will have to remain high until there is some idea, especially for corn, about the likely size of the 2003 U.S. crop.

In the August WASDE, USDA placed corn disappearance for the 2002-03 marketing year at 9.77 billion bushels. This is essentially equal to the record disappearance recorded for the 2001-02 marketing year that will officially end on August 31 this year. It is only a very modest increase of 30 million bushels in total disappearance compared to the 2000-01 year. This use level, coupled with the August corn production estimate and carryover supplies from the year about to end, result in a projected ending stock level one year from now of only 767 million bushels of corn. This is only a four week supply (at the current projected use level) and is considered by many market analysts to be about as small a carryover as the market will allow. Therefore, if the U.S. corn supply shrinks any further the argument is that someone will have to be convinced by higher prices to lower their corn use. This assumes that USDA has correctly projected total use for the coming year.

The short run pricing key is crop size. It will be difficult to get an accurate assessment of domestic feed use until January. Therefore, weekly corn sales and shipments and monthly data on domestic industrial use will very quickly become variables that traders will key on for pricing signals.

The situation for soybeans is different in two key and conflicting ways compared to corn. First, USDA is already projecting (August World Agricultural Supply and Demand Estimates, WASDE, report) that use of U.S. soybeans has to be cut substantially (272 million bushels B 9.2%) compared to this year's record setting pace of 2.946 billion bushels. Secondly, USDA, as well as everyone else, is assuming that soybean production from South America will register a large jump in production next spring (12-20 percent) compared to this spring's record setting quantity.

The August WASDE indicates that 240 million bushels of this reduced use of U.S. soybeans will come in the export category and only 35 million bushels will be cut from domestic crushings of soybeans. Further, USDA projects that domestic use of soybean meal will actually increase compared to the year that will end this August 31. The increase in meal use is based on projected rates of feeding and animal numbers for poultry and hogs and most importantly, on the assumption of a reduction in the export of U.S. produced soybean meal. The South American crop won't be planted until October-November. Other than China, U.S. produced corn should have less export competition in the coming year than has been the case over the past two years.

How will the price pattern unfold for the 2002-03 corn and soybean marketing seasons? That will depend first on the crop size estimates released monthly by USDA, however, by late fall the focus will shift to news about use rates.

Farmers should do their best to evaluate total crop size on their operations. Get some percentage of these crops priced when the market is rising by using contracts. Consider the purchase of call options to cover any corn contract sales B this will provide a minimum price, but not a maximum. Use roll-up put strategies to price additional quantities. Consider the use of synthetic puts (a short futures sales coupled with the purchase of a call option) to also price a portion of the crop. Don't wait for the price of soybeans to drop back below county loan rates before making sales.

Net Farm Income Down in 2001

Brian Lacefield

Net farm income in Kentucky decreased between 2000 and 2001. Results of the 2001 Summary Data from the Kentucky Farm Business Management program showed an -11.4 percent decline in average net farm income from \$127,357 dollars in 2000 to \$112,832 in 2001. The average net farm income, calculated on an accrual basis, is from Kentucky crop and livestock farms that are part of the Kentucky Farm Analysis program.

The lower net farm income was a result of lower prices received by producers and an increase in production cost during 2001. The increased production cost can largely be attributed to an increase in fertilizer. Bumper crop yields in 2001 were not enough to offset the lower prices and increase costs across the state.

However, when we look across the state at different areas there was more variance in net farm income (Table 1). Net farm income decreased in all the areas except the Pennyroyal area which saw a 25 percent increase in net farm income from 2000 to 2001. Both the Purchase area and the Lincoln Trail area saw the biggest percent decline (both over -48%) in net farm income from 2000 to 2001. The Bluegrass area had the smallest decline, -27 percent, between 2000 and 2001.

Table 1. Net Farm Income by Area

	2000	2001	% Change
Purchase	\$170,687	\$88,324	-48.25%
Pennyroyal	\$117,582	\$147,171	25.16%
Ohio Valley	\$144,804	\$90,393	-37.58%
Linc. Trail	\$128,724	\$65,451	-49.15%
Louisville	\$135,069	\$7,2842	-46.07%
Bluegrass	\$66,056	\$48,131	-27.14%

Table 2 breaks net farm income down by farm type. Beef and dairy net farm income increased from 2000 to 2001. Beef farms net farm income rose 15.8 percent, while dairy farms increased 18.3 percent from 2000 to 2001. Hog and grain farms both decreased net farm income from 2000 to 2001. Hog net farm income decreased -37.8 percent. Grain farms were further classified by size. The largest class of grain farms decreased by -7.17 percent. Grain farms classified as less than 999 acres saw a -19.6 percent decrease in net farm income between 2000 and 2001. The mid range class, 1000-1999 acres, had the biggest decline, -22 percent, between 2000 and 2001.

Table 2. Net Farm Income by Type

	2000	2001	% Change
Beef	\$16,128	\$18,679	15.82%
Dairy	\$61,860	\$73,194	18.32%
Hogs	\$160,035	\$99,582	-37.77%
Grain <999 Acres	\$61,420	\$49,357	-19.64%
Grain 1000-1999 Acres	\$137,824	\$107,462	-22.03%
Grain >2000 Acres	\$257,337	\$238,884	-7.17%

A mathematician, an accountant and an economist apply for the same job.

The interviewer calls in the mathematician and asks "What do two plus two equal?" The mathematician replies "Four." The interviewer asks "Four, exactly?" The mathematician looks at the interviewer incredulously and says "Yes, four, exactly."

Then the interviewer calls in the accountant and asks the same question. "What do two plus two equal?" The accountant says, "On average, four - give or take ten percent, but on average, four."

Then the interviewer calls in the economist and poses the same question "What do two plus two equal?" The economist gets up, locks the door, closes the shade, sits down next to the interviewer and says, "What do you want it to equal?"

They say that Christopher Columbus was the first economist. When he left to discover America, he didn't know where he was going. When he got there he didn't know where he was. And it was all done on a government grant.

Suzy Martin, Editor
Ohio Valley Farm Analysis Association

University of Kentucky
Department of Agricultural Economics
400 Charles E. Barnhart Bldg.
Lexington, KY 40546-0276

Phone: 859-257-5762
Fax: 859-323-1913

<http://www.uky.edu/Ag/AgEcon/>