

AGRICULTURAL SITUATION AND OUTLOOK
FALL 2001
ESM-27 OCTOBER 2001

Editors
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FOREWORD

This publication is prepared by the faculty and staff of the Department of Agricultural Economics, University of Kentucky, with an additional contribution from Kentucky State University. These articles present information on the economic situation and outlook for Kentucky agriculture and are intended to assist farmers, agribusiness professionals, Extension field staff, and others with interest in agriculture and agribusiness. Information presented here is based on the most recent information and research available. However, the rapidly changing economic and policy conditions for agriculture limit the usefulness and life span of conclusions and recommendations cited here. Decision makers should keep these facts in mind. Feel free to use the information included in this publication for other uses, but please provide professional citation about the source. The papers contained in this publication are published without formal review and the views expressed are those of the author and do not necessarily reflect the views of the University of Kentucky, the Agricultural Experiment Station, or the Cooperative Extension Service. If you need additional information or if you would like to provide comments or suggestions, contact the author or the editor. A list of authors (in alphabetical order) and contact information is provided below.

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Macroeconomic and Agricultural Situation and Outlook Executive Summary

Gregg Ibendahl and Larry Jones

The U.S. economy slowed markedly during 2001. Certainly the events of September 11, 2001, have added to the economic uncertainty facing the U.S. and indeed the world economy. The U.S. is probably in a recession. Negative economic forces include slower economic growth, rising rates of unemployment, falling corporate profits, slumping stock values and consumer confidence is waning. Positive trends in the economy include inflation remains in-check, short term interest rates have fallen dramatically, taxes have been cut and government spending is increasing. One consequence of stimulative fiscal policy and slower economic growth has been the evaporation of the federal budget surplus.

In all probability economic growth in the U.S. will be negative in the third quarter of 2001. This decline follows the longest peacetime expansion on record. Real (adjusted for inflation) Gross Domestic Product (GDP), the most common measure of economic activity, grew at a 4.1% annual rate in 2000 and is estimated to increase an anemic 1% during 2001. Growth next year is expected to slow to 2-2.5%. However this estimate might prove overly optimistic depending on how fast the U.S. economy, and consumers in particular, recover from the shocking events of September 11, 2001.

There are two solid pieces of good economic news. First, inflation continues to be in-check. The Consumer Price Index (CPI) for 2001 will likely increase about 2.5%. Inflation is expected to be even lower in 2002. The second piece of solid economic news is the rapid decline in interest rates. These declines have been led by the Federal Reserve (FED) reductions in the Federal Funds rate, a key short-term interest rate. Longer-term rate declines have been more modest. The odds are that another rate reduction could occur this fall. Rates should be fairly steady as we move into 2002.

Unemployment in 2001 will likely average near 4.9%, the highest level in four years. Next year we expect the unemployment rate to move higher reflecting a slowing economy. Unemployment is a "lagging" indicator meaning that the rate would be expected to increase even as an economic recovery began.

The major economic risk factor to monitor during 2002 is consumer confidence and their willingness to purchase goods and services. Consumers comprise 2/3 of the U.S. economy. Strong buying the past 12 months buoyed the U.S. economy. Consumer confidence was fragile before September 11. How fast consumers return to the market place will largely determine how fast the U.S. economy recovers from a recession.

Macroeconomic Situation and Outlook

Fall 2001

Introduction

The U.S. economy is probably in a recession. The “rule of thumb” is that a recession occurs when the economy exhibits two consecutive quarters of negative economic growth. The third and fourth quarters of 2001 will likely reflect negative economic growth. Major macroeconomic trends this past year were:

- Slowing economic growth, especially the second half of 2001
- Declining consumer confidence in the economy, spurred on by the events of September 11
- Relatively low inflation continues
- A stimulative monetary policy resulting in lower interest rates
- Stimulative fiscal policy thru tax cuts and increased government spending
- Climbing unemployment as the economy slows
- Evaporation of the federal budget surplus
- Large trade deficits

Economic Growth

Economic growth slowed as the year advanced. The economy was probably teetering on the edge of a recession when the terrorist attacks occurred. The resulting loss in economic activity accompanied by declining consumer confidence probably has guaranteed a recession. For the year, real Gross Domestic Product (GDP) probably will grow less than 1%, but that follows 4.1% growth during 2000. First quarter 2001 real GDP growth was 1.3% annual rate and second quarter growth came in at 0.3%. The odds are that 3rd and 4th quarter growth will be negative. As we noted last year, the economy had been growing since the 1st quarter, 1991, easily exceeding the 50-month average expansion of the previous nine post-war economic growth periods.

How fast will the economy rebound? There is a wide divergence of opinion. Even in the best of times, economic forecasts are educated guesses. These are not the best of times to be forecasting economic growth. That disclaimer aside, some scenarios suggest that by early-2002 the economy will be picking up as consumers gain renewed confidence and start spending. Others feel that the terrorist attacks have greatly undermined consumer willingness to make major purchases thereby delaying any meaningful economic recovery till later in 2002. One can find statistics and experts to support both scenarios.

Some basic economic fundamentals are still strong. For example, interest rates (particularly short-term rates) have declined precipitously as the economy weakened. Plus the Federal Reserve lowered rates and added liquidity into the market after 9/11/01. Lower interest rates are good for durable goods and investment. The federal government is pursuing a rather aggressive fiscal policy that has resulted in tax cuts earlier this year, talk of additional tax cuts in recent weeks and sharply higher government spending not only in response to a weak economy but also in response to the terrorist attacks. Worker productivity has slowed somewhat, but 2^d quarter productivity still registered a healthy 2.1% increase.

Some economic trends are not as positive for economic growth. For example, the September survey of consumer confidence showed the biggest decline since the Gulf War. Further, it's not certain when consumers might start making larger purchases. A second major concern is that consumer wealth in the stock market has declined. Within two weeks following September 11, more than \$1.4 trillion of stock market wealth had evaporated. This decline is equal to the entire annual output of Great Britain. One estimate suggests that each \$1 decline in stock market wealth translates into 3-5 cents decline in purchases. These numbers suggest that the stock market decline alone during mid-September resulted in \$30-\$50 billion less consumer spending. Then factor in that world economic growth will be positive, but at the lowest level since 1993 and this does not bode well for a resurgence in U.S. exports

It is our educated guess that economic growth will begin to increase as 2002 unfolds. The federal government through monetary and fiscal policy is providing a tremendous amount of economic stimulus through lower interest rates, lower taxes, and increased spending. Our current forecast calls for economic growth for the year being in the 2% range.

Inflation Situation

Inflation is most commonly measured by the Consumer Price Index (CPI), an index of the prices paid by urban consumers for a fixed market basket of consumer goods. Included in the market basket are food, housing, clothing, transportation, medical care, recreation, and other goods and services, which are tracked with 90,000 prices collected weekly across the nation.

The CPI through August, 2001 had increased 2.7%. For the year, overall inflation will likely be around 2.5%. These results do not reflect any major change in the inflation trend for the last four years. Next year we anticipate inflation might actually be somewhat lower with the actual rate being near 2%. The past decade, energy prices have been the most volatile component of the CPI. However, energy costs increasingly comprise a smaller share of household and business expenses. However, the political uncertainty in the Mideast continues to be one major economic risk factor because of what political instability in the region might mean for oil supplies over time.

Interest Rates

Last year we noted that the FED had increased interest rates six times since June, 1999. Since, January, 2001 the FED has now pursued the most aggressive decline in interest rates in 20 years. The FED moved in response to: The "New Economy" was crashing; stock prices were plunging; and, consumer confidence was waning. Following the September 11 attack, the FED moved aggressively to cut another half point off the Federal Funds Rate and a half percentage point off the discount rate. Both moves were designed to instill confidence in the economy's future.

Is another interest rate decline in the offing this fall? If the FED errors in the current environment, it will likely error on the side of cutting rates again. The risks of inflation for the next year appear quite low affording the FED the flexibility to cut rates further to help stimulate a struggling economy. Further reductions in the Federal Funds rate would imply a real (short-

term) interest rate near zero. This move would match FED actions taken following the economic slowdown after the Gulf War. However, the combination of increased government spending to increase security, fight a war, rebuild New York, and economic stimulation will likely lead to larger budget deficits which implies higher interest rates in the years ahead, but not likely much rate movement in 2002.

Unemployment

The August rate of unemployment at 4.9% represented a significant jump over the July figure (4.4%). The rate of unemployment for 2000 averaged 4.0%. Unemployment for 2001 will likely average near 5%. Although rates have increased, a rate below 5% is still considered “relatively” low. 1997 was the first year since 1973 that the rate of unemployment fell below 5%. The rate of unemployment will continue to increase as 2002 unfolds not only in response to a slowed economy, but also because this economic indicator is a lagging indicator. We could well see economic activity increase in 2002 while also watching monthly unemployment rates inch even higher. Unemployment for 2002 will likely average in the upper 5% range with the rate declining somewhat as we approach the end of 2002.

U.S. Budget Surplus for 2000-01

After years of massive federal budget deficits, the unprecedented continued economic growth of 1991-2000 resulted in a fundamental turnaround. Last year we noted that “official” forecasts were for a budget surplus of \$2 trillion over the next 10 years. We noted then that an economic recession could change this forecast quickly. Obviously that’s what’s happened. The surplus is basically gone. The well-publicized tax cuts were responsible for a portion of the disappearance of the surplus. The facts are that government receipts are lagging primarily because of lower economic growth. Further, now that the government is going to spend significantly more to aid families lost in the disaster, provide assistance for New York and gear up to fight a war on terrorism we anticipate larger budget deficits in the coming years. We do not, however, expect deficits of the magnitude we experienced in the 1980’s and 1990’s.

Conclusion

We expect an economic recession in late 2001/early 2002 with the economy recovering as 2002 progresses. Real GDP in 2002 should be in the 2% range while inflation remains relatively low. We anticipate rates for most of 2002 being rather steady. Unemployment will continue to increase even as the economic recovery begins. The biggest downside risks to this forecast include the question of how fast U.S. consumers will return to the market place? The terrorist attacks on September 11, 2001 resulted in the largest economic disaster in the past thirty years (an estimated \$60 billion of destruction and lost output). No one is sure how the economy might recover from an event of this magnitude? But massive government intervention in the form of lower interest rates, reduction in taxes and increased spending is providing a tremendous stimulus for economic recovery in 2002.

Agricultural Economic Outlook

Cash Receipts and Farm Income

U.S. cash receipts in 2001 for crops and livestock are expected to rise to \$96.3 and \$108.6 billion, respectively. These combined gross receipts are up \$11 billion from last year but are still below receipts in 1997. Over half of the increase in 2001 is due to improved dairy receipts. Improved cattle and poultry receipts contribute as well. Crop receipts continue to remain at 1994 levels, down \$15 billion from 1997's peak.

Net cash income, which is gross cash income minus cash expenses, is expected to rise by \$3.5 billion to \$61 billion. This gross cash income is \$6 billion above the 1990-2000 average of \$55 billion. Several factors are behind this increase. Prices for major crops will likely remain low due to large supplies. These low prices hurt grain producers while they help livestock producers by keeping feed costs low. Increases in oil prices are contributing the most to higher production expenses by not only directly raising fuel costs but also through higher fertilizer prices. Loan-deficiency payments and other government revenue continue to support farm income.

Net farm income for the U.S. should increase for the third year in a row. Currently, it is forecast at \$50.4 billion, which is \$4 billion above last year. Most of this increase can be attributed to the higher crop and livestock receipts. This \$11 billion increase in receipts outweighs the slight drop in government payments and the \$3.5 billion increase in expenses. The 2001 net farm income is above the 10 year average of \$45.3 billion from 1990 to 2000. Figure 1 shows U.S. net farm income since 1990.

Kentucky will probably see a smaller net income in 2001. However, 2000 was a very good year for many farmers in the state. As figure 2 shows, net income for Kentucky in 2000 was over \$1.6 billion. This was nearly double the previous year. While net income this year will likely be lower it still should be above the other recent years. Good growing conditions in many parts of the state should help both grain and livestock producers. With good yields, grain producers will receive more in government payments than they would with poor yields. With continuing good beef prices and higher dairy prices, most livestock producers should fair well.

Government payments are predicted to constitute nearly a third of net farm income for the U.S. agricultural sector in 2001. For operating farms, this percentage is even higher. Data from the Kentucky Farm Business Management (KFBM) program suggests that government payments can be nearly 85 percent of net farm income for many farmers. Without this support, net farm income would be at levels not seen during this decade. As long as grain stocks continue at current levels, prices will remain weak. As Figure 3 shows, government payments have more than doubled since 1997.

We may, however, have reached the peak for government payments. With other industries also receiving some government support after the terrorist attacks, farmers may not get \$20 billion in government payments next year. Because farmers depend so much on government support, any reduction could have far reaching implications.

Finance

Despite low crop prices, farm balance sheets are still in good shape. Unlike the early eighties, real estate prices have not declined. Government payments are likely being capitalized back into land values. Farm equity of the U.S. agricultural sector is expected to increase another 3 percent to \$104 billion dollars this year. This follows a 3 percent increase last year. For 10 consecutive years now, there has been equity increases on the U.S. farm balance sheet.

This year, farm debt is projected at \$185 billion, which is up less than one percent from 2000 and up five percent from 1999. Fewer debt financed capital projects and adequate supplies of working capital help explain the small increases in farm debt the last few years. Farm debt is still nearly \$20 billion below the 1984 peak. Debt to equity ratios are expected to remain around 20 percent as they have for all of the nineties. Figure 4 shows how debt and equity have changed on Kentucky farms over the last 40 years

Most farms should be able to weather the effects of low prices as long as farmland values remain strong. Farmland makes up 79 percent of farm assets so any land price declines will affect farm solvency. The U.S. balance sheet is somewhat misleading as not every farm is in such good financial shape. Those farms with more debt are much more vulnerable to the effects of low prices and poor production. Also, certain farm types may be facing more problems than others due to the unequal distribution of government payments.

If farm income and cash flow are reduced over the next several years because of a possible reduction in government payments, then debt management will be key to the survival of most farms. Lower net farm incomes will probably decrease the rate of increase in farmland value. We could even see a decrease in farmland values in some places if net farm income is reduced great enough. We are unlikely to see what happened in the mid 80's however because most farmers have debt under control.

Agricultural Trade

For fiscal year 2001, U.S. agricultural exports are expected to rise five percent to \$53.5 billion. This forecast reflects some worldwide economic growth and anticipated larger export volume and higher prices. Both bulk and high-value product exports show strong growth. These high-value products include fresh and processed fruits, processed vegetables, beef, sugar and tropical products, and animal feeds. These high-value products will make up 63 percent of total agricultural exports.

U.S. agricultural imports are projected to remain steady at \$39 billion. The \$53.5 billion in agricultural exports combined with \$39 billion of agricultural imports leaves a \$14.5 billion trade surplus.

Table 1. Agricultural Trade Situation and Forecast (billion \$)

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Exports	53.7	53.6	49.1	50.9	53.5
Imports	35.8	37.0	37.5	38.9	39.0
Trade Surplus	21.5	16.6	11.6	12.0	14.5

Figure 1. U.S. Net Farm Income

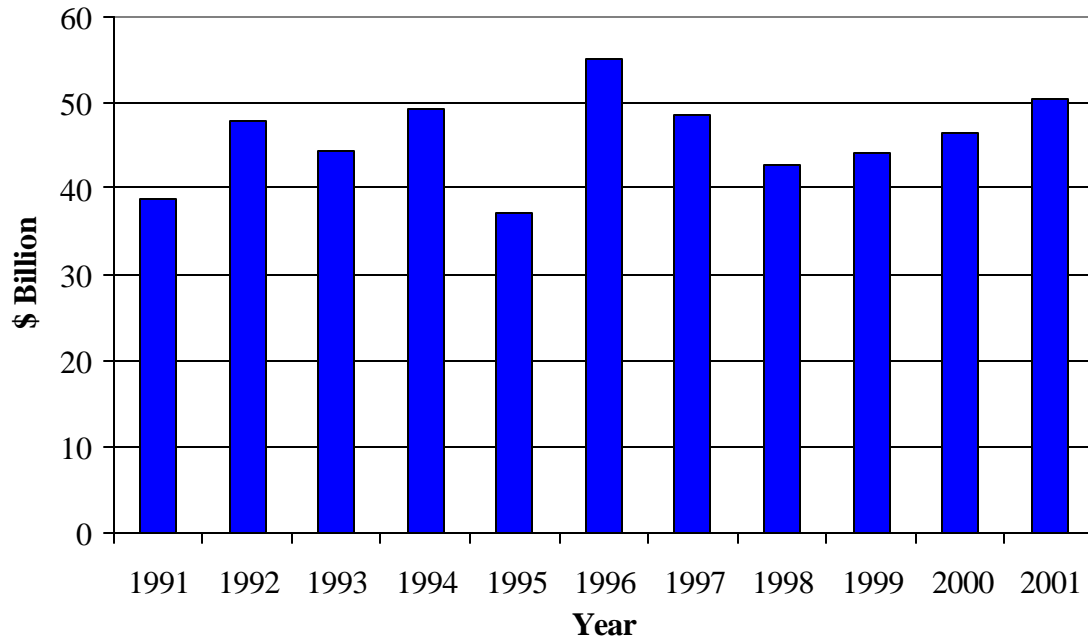


Figure 2. KY Net Farm Income

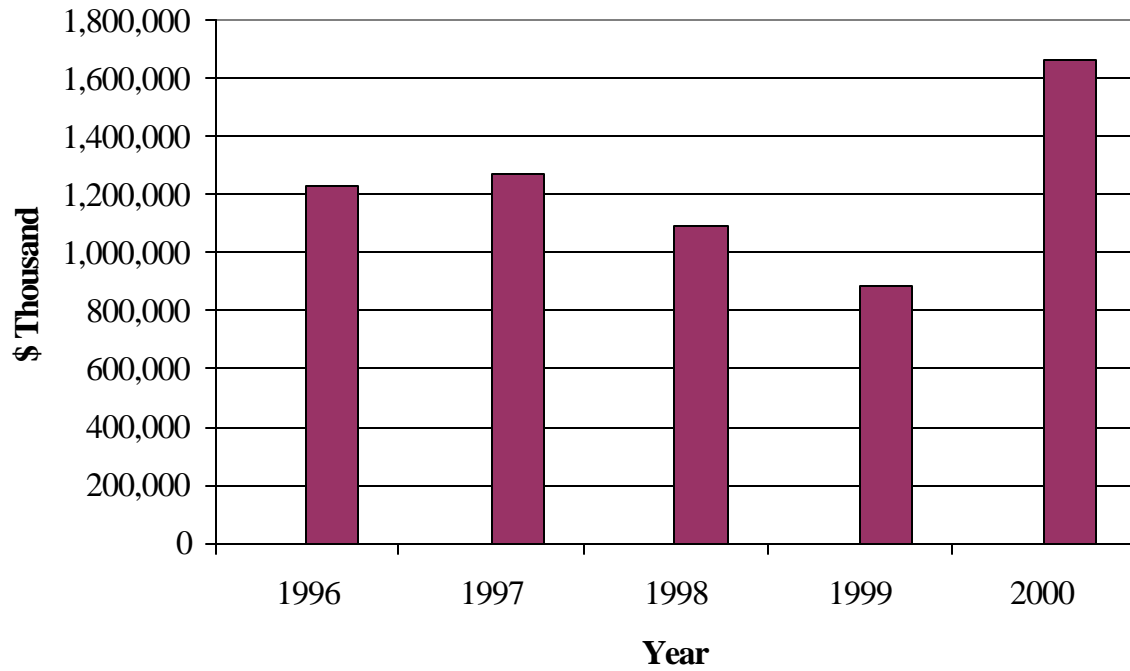


Figure 3. U.S. Direct Government Payments

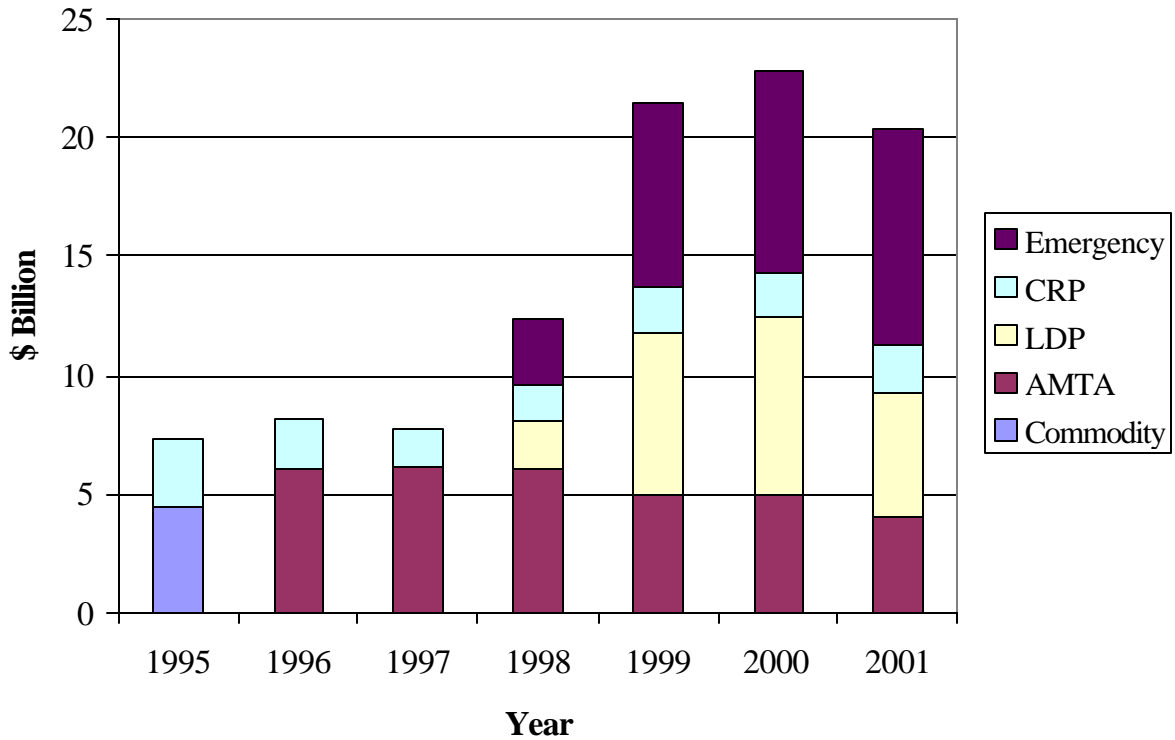
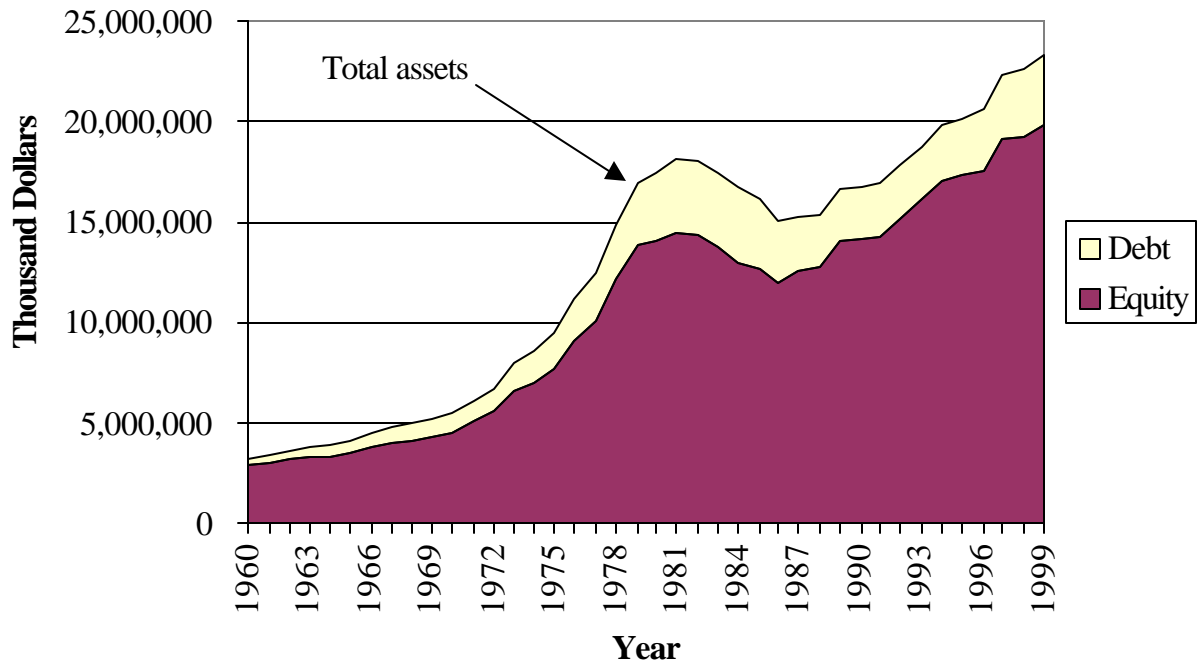


Figure 4. Debt and Equity for Kentucky



Kentucky Tobacco Situation and Outlook

Will Snell

The Kentucky tobacco industry remains a smaller, yet still important facet of Kentucky agriculture. Cash receipts for tobacco peaked at \$924 million in 1998, before slipping to \$737 million in 1999 and \$674 million in 2000. Sales of horses, which include stud fees, have recently overtaken tobacco as the state's top agricultural cash receipt enterprise. However, tobacco still accounts for around 20 percent of total agricultural cash receipts and over 50 percent of crop sales. Despite the significant decline in tobacco sales, Phase II tobacco settlement payments coupled with federal Tobacco Loss Assistant (T-LAP) payments have cushioned the decline in tobacco sales. In fact, accounting for 2000 tobacco sales and "mailbox" money received during the year from two Phase II payments and two T-LAP payments, tobacco farm gross revenue exceeded \$1 billion last year. However, Kentucky tobacco farm income will decline in calendar year 2001 in response to lower calendar year marketings and reduced mailbox money.

On the national front, U.S. tobacco farmers face a multitude of political, economic and legal issues that continues to result in much short and long term uncertainty for all segments of the industry. Despite these challenges, the industry has experienced some positive actions recently. Burley basic quotas rebounded in 2001 and the world burley supply/demand balance improved. U.S. cigarette production exhibited signs of leveling off, as both the declines in domestic consumption and cigarette exports stabilized following significant declines during the latter 1990s. Dark tobacco growers continue to benefit from increasing domestic snuff consumption. Burley grower prices increased to record levels last year and loan (pool) stocks were reduced considerably.

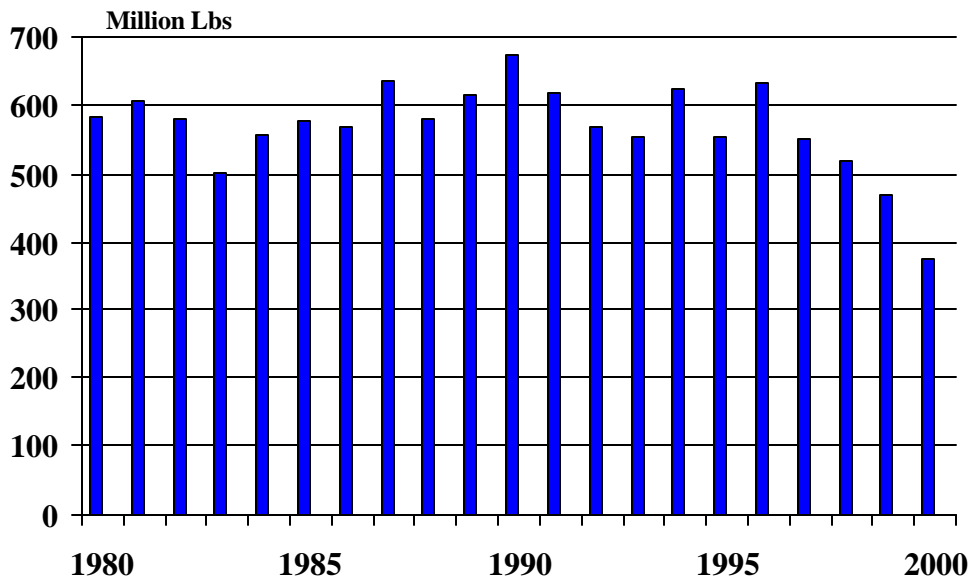
However, as usual, Kentucky tobacco growers continue to experience their share of challenges and negative trends. Despite a basic quota increase exceeding 30 percent in 2001, burley quotas remain nearly 50 percent below their 1997 level. In response to an extremely large 2000 crop, dark tobacco loan receipts were up and prices were noticeably lower for the 2000 crop, while 2001 acreage allotments were reduced 10 to 20 percent. Limited leasing supplies in many areas, coupled with anticipated federal and tobacco settlement payments, caused lease prices to escalate. Lower priced foreign burley continues to entice leaf imports and reductions in the U.S. burley exports. Furthermore the industry is unclear of the potential long-term effects of contracting on the marketing system and the future existence of the tobacco program. Other unknowns include whether the opening of the Chinese tobacco market will make a noticeable impact on U.S. tobacco trade, the disposal of the 1999 U.S. burley loan stocks, the implications of reduced nitrosamine and genetically modified tobacco production, and other potential program changes, including the much discussed issue of a tobacco quota buyout. Collectively these factors create a very complicated and uncertain outlook for Kentucky burley tobacco growers.

World Burley Supply/Demand Balance

Since 1997 the world burley tobacco industry has been attempting to reduce an excessive build-up in leaf stocks that evolved in anticipation of continued strong economic growth

worldwide, increasing world tobacco consumption, and the introduction of American-blended cigarettes (containing a mixture of burley, flue-cured, and oriental leaf which may or may not originate from the United States) in emerging markets. While sales of blended cigarettes have continued to grow, depressed economies in parts of the world, coupled with aggressive anti-smoking campaigns and escalating tobacco product prices in other markets have constrained the growth in burley demand. World burley production has declined by 17 percent since 1997, with the U.S. accounting for more than 80 percent of this adjustment. Interestingly, world cigarette production has only declined by one percent during this period, with continued modest growth in blended cigarette consumption. Consequently, the world supply/demand balance for burley tobacco has improved recently, with certain grades and styles of burley tobacco in short supply. A significant unknown in the world burley supply/demand balance is what will happen with the 1999 U.S. burley pool inventory. Legislation passed late in 2000 declared these stocks a disaster and were taken under title by the USDA. Farm groups have lobbied for these stocks to be destroyed, but USDA intent on these stocks remains unclear. If USDA ultimately decides to place stocks of this magnitude (exceeding 10 percent of world burley production) on the international market, the industry would quickly revert back into an excess supply situation.

Figure 1. U.S. Burley Demand



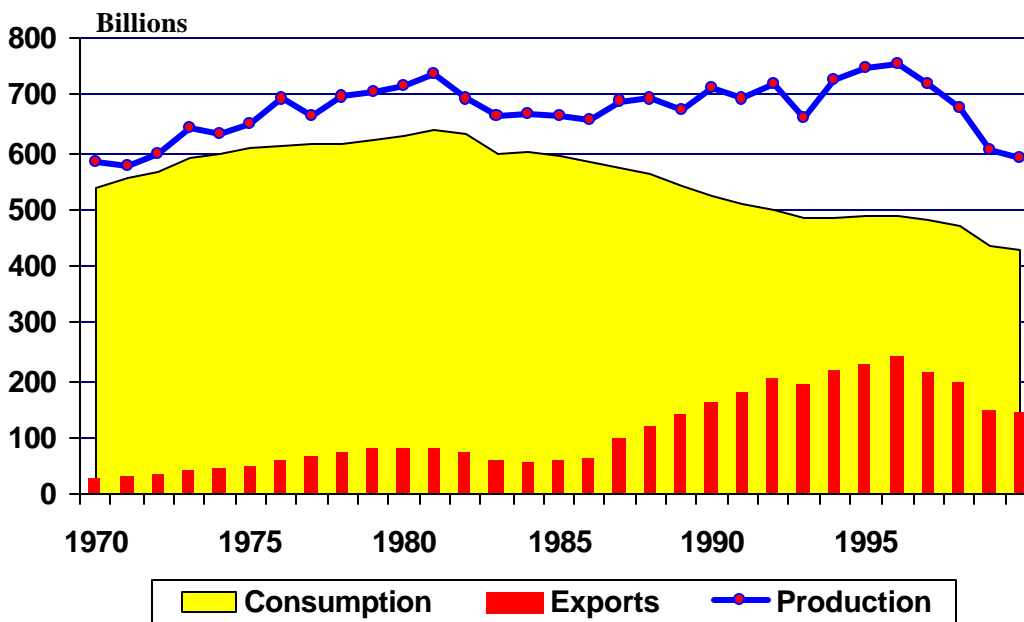
U.S. Burley Supply/Demand Balance

Domestically, the U.S. burley sector has been plagued in recent years with declining cigarette production and increasing consumption of imported leaf. U.S. cigarette production established a record high of 755 billion pieces in 1996. Since then, a combination of excise tax increases, settlement-induced price hikes, along with manufacturer wholesale price increases have boosted U.S. cigarette prices by more than 50 percent. Surprising to many analysts is the observation that domestic cigarette consumption has only declined by around 12 percent (or approximately 60 billion pieces) during this period. However, U.S. cigarette production has actually fallen by around 160 billion pieces during this period, with the decline in cigarette

exports (approximately 100 billion pieces) being the largest factor as domestic manufacturers shifted some of their U.S. production to overseas facilities. Preliminary trade data for 2001 does reveal though the slide in U.S. cigarette exports somewhat subsided during the first half of the year, and domestic sales are expected to revert back to its traditional 1 to 2% annual decline.

While cigarette production has declined by more than 20 percent since 1996, burley imports have been on an upswing. In recent years, U.S. burley imports have been in the 150 to 200 million pound range, approaching 40 percent of total burley use by U.S. cigarette manufacturers. U.S. burley demand has also suffered from a significant decline in the leaf export market. According to the USDA, U.S. burley exports for the marketing year ending September 30, 2001 are projected to fall to 125 million pounds. This compares to a record high of 209 million pounds in 1996. Ample supplies of foreign burley, resulting in a widening price differential between U.S. and foreign leaf, has undoubtedly encouraged the growth in imports and decline in exports. The average export (processed) price of U.S burley increased steadily from \$3.63/lb in 1997 to \$3.80/lb in 2000, while imported (processed) burley prices declined from \$1.81/lb in 1997 to \$1.52/lb in 2000, with import prices averaging less than \$1.50/lb during the first half of 2001. Accounting for the recent slide in leaf and cigarette exports, along with the surge in leaf imports, current demand for U.S. burley may be in the 350 to 400 million pound range, compared to more traditional demand levels of 600 million pounds.

Figure 2. U.S. Cigarette Consumption, Production and Exports



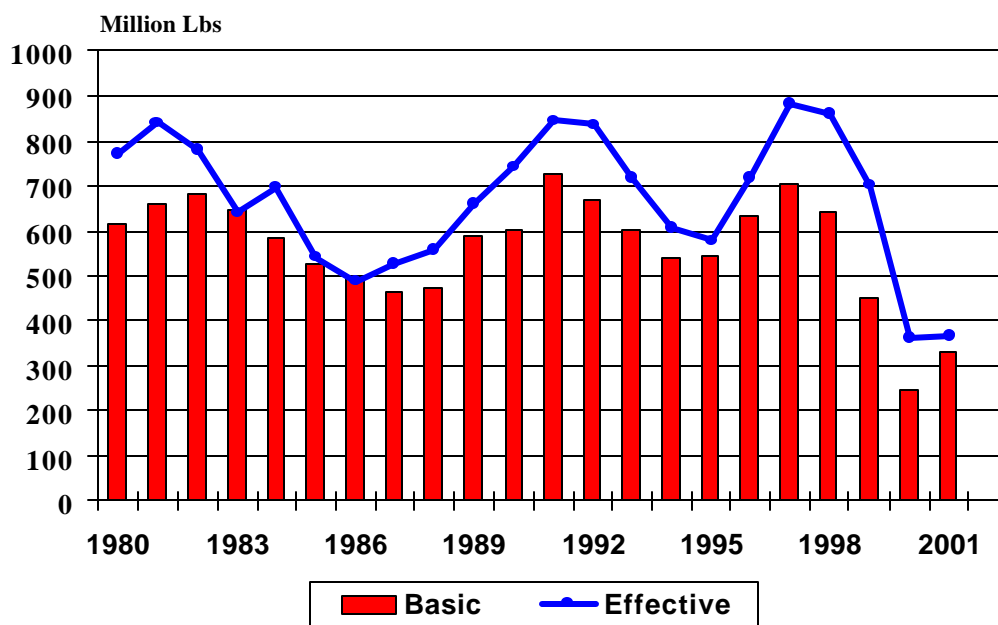
On the supply side, the 2001 basic quota totaled 332 million pounds, 34 percent higher than the 2000 quota, but 53 percent lower than the 1997 basic quota of 705 million pounds. The quota rebound was in response to the elimination of 1999 pool stocks from the quota formula. The other two quota formula components, manufacturer purchase intentions and exports were both lower for the 2001 quota calculation. Despite a significant basic quota increase, a lower

than usual volume of carryforward (unutilized) quota from the 2000 season, resulted in the 2001 effective quota remaining relatively constant from last year's 367 million pounds. Thus, it appears that quota is closely in line with current demand estimates.

2001 Burley Market Outlook

According to the September USDA crop report, the 2001 U.S. burley crop is forecast to total 372 million pounds. This production estimate coupled with projected carryover burley from the 2000 crop will result in more than 400 million pounds being available for the 2001 market. However, quota limitations may constrain marketings for the 2001/02 season to around 340 to 350 million pounds. Thus, given projected disappearance estimates of 350 to 400 million pounds demand for the 2001 U.S. burley crop (assuming quality holds up during the curing season) is expected to be relatively strong with a limited volume placed in the pool. Current estimates project nearly 65 percent of the 2001 burley crop will be sold directly via contracts, compared to 27 percent of the 2000 burley crop being contracted. Anticipated support prices and announced contract prices for the 2001 crop yield expectations that prices will exceed last year's record high price of \$1.95/lb, assuming an excellent quality crop materializes. One potential wildcard issue that complicates the 2001 burley auction market is how buyers might respond to a potential buyer's premium that warehouse operators may access as an attempt to improve the net return for growers selling in the auction market. While most of the 2001 crop is expected to be purchased by the industry, demand is not expected to be strong enough to entice buyers to purchase a noticeable volume of existing loan stocks (currently at 125 million pounds) at their existing price level.

Figure 3. U.S. Burley Basic and Effective Quota



2002 Burley Quota Outlook

The national burley quota formula consists of manufacturer purchase intentions, a three-year average of leaf exports and the adjustment for reserve (pool) stocks. Ideally this three-part total yields a supply level that will closely match up with anticipated demand. Examining the quota formula closely reveals that both the leaf export component and the reserve stock adjustment of the quota formula will be lower in the 2002 quota formula calculations. Thus, manufacturer purchase intentions would have to rebound to enable quota to stabilize or increase in 2002. Based on recent export trends and anticipated ending pool stocks, the 2002 burley quota would experience a double-digit decline if purchase intentions remain at their 2001 level of 225 million pounds. U.S. burley purchase intentions are based on manufacturer's anticipated levels of future domestic cigarette production, available burley import/pool stocks, and estimated future foreign burley production levels. All three of these factors would suggest the potential of lower purchase intentions for 2002. However, a large 2001 crop relative to the quota, coupled with the recent tobacco program change to limit the volume of carryforward quota to 10 percent of the previous year's basic quota may encourage manufacturers to boost purchase intentions for 2002 if their goal is to maintain a U.S. burley effective quota and 2002 marketings in the 350 to 400 million pound range. Lower purchase intentions in the current demand environment would clearly reveal manufacturers plans to shift additional cigarette production overseas or increase utilization of imported leaf. However, as usual, there exists many other uncertain factors complicating the short and long-term quota and production outlook for the U.S. burley industry including:

- How will the movement toward contract marketing affect demand for U.S. burley in international markets? Will purchasers consider the leaf quality improvements evolving from a changing marketing system great enough to offset the higher market prices being generated from the dual marketing system?
- Will the opening of the Chinese market provide trade opportunities for U.S. burley tobacco growers?
- What will be the short/long-term effects of the political uncertainty/racial tension in Africa on world tobacco production and trade?
- Will a U.S. tobacco quota buyout evolve and how will it be structured and financed?
- Will the U.S. tobacco program be modified or eliminated to address international price competitiveness? If so, how will other countries respond to these changes?
- What will be the effects of reduced nitrosamine tobaccos and GMO tobacco on tobacco production and consumption?
- How will heightened anti-tobacco campaigns, taxes, regulation and legal challenges impact tobacco production, and consumption?

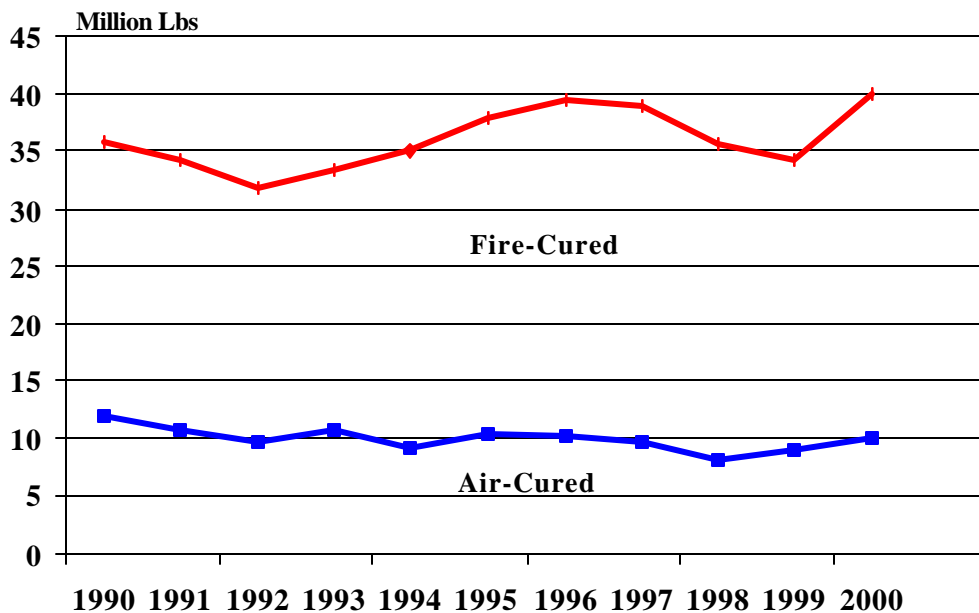
These, and many other important issues clearly indicate a very uncertain and complex outlook for burley tobacco growers. Although production opportunities will not likely increase back to pre-tobacco settlement levels, the unique characteristics of U.S. burley and its reputation

as a dependable supplier will enable the U.S. burley tobacco industry to survive for the foreseeable future. While burley tobacco will remain an important enterprise for many farm and agribusiness interests in the burley belt, it remains unclear who will survive amidst this changing production and marketing environment.

Dark Tobacco Situation and Outlook

Dark tobacco is produced in around 30 western Kentucky counties and remains a vital component of the agricultural economy in several of these counties. Typically dark tobacco production generates around \$60 million of cash receipts in Kentucky. Kentucky produces two types of dark tobacco -- dark fire-cured and dark air-cured. Like Kentucky burley, the world market considers the dark tobacco produced in Kentucky (and western Tennessee) as the world's top quality.

Figure 4. Dark Tobacco Use

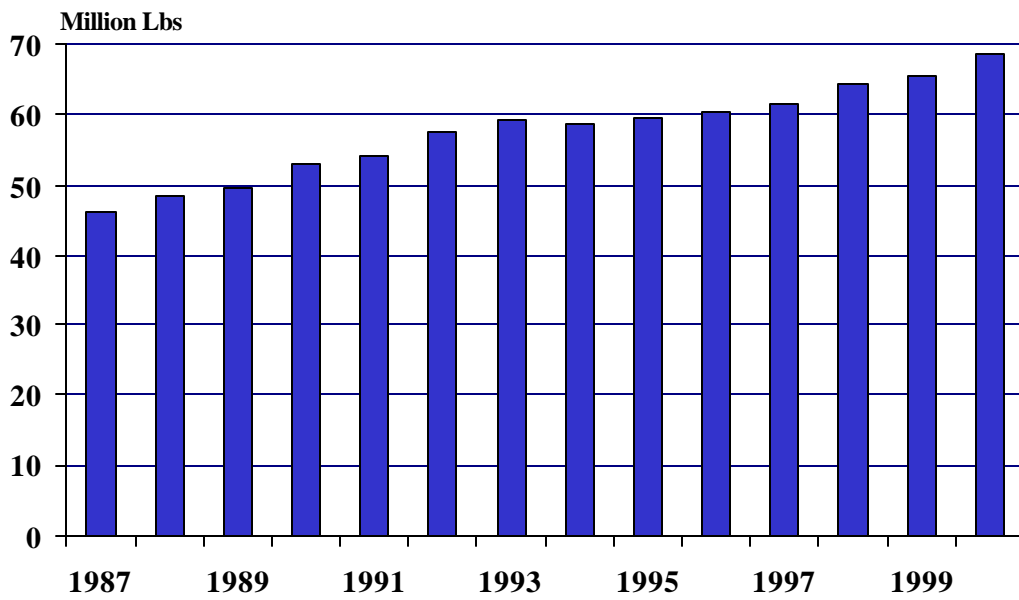


Dark tobacco is used primarily in smokeless tobacco products. Over the past two decades, chewing tobacco sales have continued to spiral downward, but the dark tobacco industry has benefitted from increasing domestic snuff consumption. Snuff sales have increased steadily since the mid 1980s.

In recent years, U.S. dark tobacco supply and demand have been in balance with production closely tracking disappearance levels. However, an extremely large 2000 crop elevated supplies well above demand levels causing a noticeable pool intake and significant

acreage allotment declines for the 2001 crop. Dark fire-cured allotments were reduced 20 percent for 2001, while dark air-cured allotments were cut 10 percent. According to the September 1st crop report, U.S. dark fire-cured (types 22-23) production for 2001 is projected to total 37.2 million pounds, or nearly 12 million pounds below the large 2000 crop. Dark air-cured (types 35-36) is pegged at 12.6 million pounds, compared to production of nearly 16 million pounds in 2000. Production estimates for 2001 for dark fire-cured are more closely in line with recent disappearance levels (35 to 40 million pounds), while anticipated dark air-cured production is still above use (approximately 9-10 million pounds). These preliminary data indicate that the 2001 crop will likely see a continued noticeable spread among grades with the potential for additional loan stocks.

Figure 5. U.S. Snuff Consumption



Situation and Outlook for Corn, Soybeans and Wheat: 2001-2002

Steven K. Riggins

Corn

Production Prospects

In the September Crop Production Report USDA pegged U.S. planted corn acres at 76 million, harvested acres at 69.2 million, yield at 133.5 bu/acre and total crop size at 9.238 billion bushels. This compares to last year's crop of 9.968 billion bushels, the 2nd largest ever, with a yield of 137.1 bu/acre, also the 2nd best ever, on a harvest of 72.7 million acres.

Corn production conditions have been quite variable this season across the several corn producing regions of the U.S. Many areas of the eastern corn-belt had nearly ideal early planting conditions and the crop got off to a great start. Most of these areas like Indiana and Kentucky are expected to produce excellent yields this fall. The major exceptions in the eastern corn-belt were Ohio and Michigan where it stayed too wet much of the season. Several important States in the western corn-belt also had problems with too much water early in the season and too much heat and some dryness in mid-season. In some of these States, South Dakota, Kansas, Nebraska and Iowa some acres got switched to soybeans due to the late spring and it appears some acres never got planted to any crop.

A simple linear trend yield projection based on 25 years of data indicate yield potential should have been about 137 bu/acre. Clearly, this year's corn crop has been hurt by significant weather problems over a large part of the corn production belt, however, it has not been a very poor year like 1988, 1993 or 1995. Michigan seems to be the only State with a severely damaged crop. Yield there is now forecast at only 92 bu/acre compared to last year's yield of 124 bu/acre. Michigan is not a major corn producer when compared to States like Iowa, Illinois or Nebraska.

It is difficult to get a very precise definition of crop size in September. Early harvest results look promising. However, the best corn is probably being harvested now and the late planted corn in the western corn-belt is not yet ready and is still slightly susceptible to a damaging early frost. It is not uncommon for the USDA's "final" yield estimate to change from the September figure by 4 bu/acre or more. Last year's USDA's September yield forecast indicated an average yield of 141.8 bu/acre while the current estimate for the 2001 corn yield is listed at only 137.1 bu/acre. This resulted in a drop in the crop production number from last September to the following January of 394 million bushels.

Many market analysts seem to think the U.S. corn crop will get smaller as the harvest season advances. However, USDA only reduced their corn yield estimate .4 bu/acre from the August number and some market participants now claim the corn crop has improved since mid-August. Only time will tell who is correct in their assumption.

Domestic Demand

The strong U.S. economy of the past several years coupled with growth in population has produced steady increases in corn use for livestock feed to produce meat. Poultry production has typically increased in the 3-4 percent range each year, even though growth in that category was minimal last year. Data from the poultry industry indicate that output will be stronger in the year ahead (around 2% growth) with solid domestic demand. The export picture, especially for dark meat was looking robust until September 11. This situation should be monitored as the corn marketing season advances because a high percentage of poultry meat exports in recent years have gone to areas that might be impacted by future U.S. policy decisions.

A really bright spot in corn feed demand over the past 18 months has been for corn to produce beef. Some beef marketing analysts have theorized that beef demand may have turned a corner after several years of disappointing per capita beef consumption. It will be interesting to observe what change, if any, the weakening U.S. economy may have on beef demand or total beef consumption. It appears that beef cattle numbers should be down sufficiently over the remaining 11 months of the new corn marketing year to lead to a slight reduction in the use of corn for beef cattle feed compared to last year's feed use. Sorghum supplies are also about 25 million bushels greater than last year and will provide some more competition for corn in cattle feedlots.

Hogs are the major remaining animal group that consumes large quantities of corn and dairy cattle are also important. On balance it appears that corn for livestock feed use by these two groups will remain near last year's strong, but not record levels. Dairy cattle numbers are expected to drop slightly and the pork industry is expected to make only a modest increase in output.

In total, USDA projected, in the September WASDE, annual livestock feed/residual use for the 2001-02 marketing year at 5.8 billion bushels. This is only fractionally below the record of 5.85 billion bushels of corn feed use in the recently concluded 2000-01 marketing season and it is well above the prior record of 5.66 billion bushels set during the 1999-00 season.

Unfortunately there are only 4 data observations per year that can be used to get a handle on feed use. These reports, the Quarterly Stocks Reports, are released by USDA in January, March, June and September of each marketing year. They report the quantity of grain on-hand as of December 1, --- March 1, --- June 1, and September 1. The stock level is compared to the supply total to arrive at disappearance during the prior quarter. Farmers need to stay alert for these reports and anticipate their impact on the seasonal price pattern.

The remaining category of domestic use of corn is for food/industrial purposes. The two primary uses of corn in this catch-all category are for corn syrup --- used to sweeten soft drinks, and as ethanol in motor fuel production. Given recent favorable rulings (from a corn growers perspective) about the use of MTBE in California and a significant expansion in ethanol production facilities it is not surprising that USDA has forecast a robust increase in use of corn in the food/industrial category of 85 million bushels. If realized this would be the first time in U.S. history that use in this category has exceeded 2 billion bushels. At 2.05 billion bushels, however, use in this category is forecast to exceed exports at only 1.975 billion bushels. Use

in this category had never exceeded export shipments until 1993. Domestic use of corn for food and industrial purposes has exceeded corn exports two out of the past three seasons.

With domestic use of corn for food/industrial purposes at a record level and domestic use of corn for livestock/residual uses only slightly below last year's record amount it is not surprising that USDA forecast in their September WASDE a new record large off-take for total domestic use of corn in the 2001-02 marketing year. The new projected record domestic use of 7.85 billion bushels is only 35 million bushels greater than the record from the 2000-01 marketing season.

Exports

USDA is projecting a very slight increase in total marketing year U.S. corn exports from 1.94 billion bushels last season to 1.975 billion bushels this year. The export pace from early in the season is not a very good indicator of eventual total exports, however, the pace during the first three weeks of the new season just about match the pace from the prior year.

China appears to have experienced a 2nd year in a row of poor corn harvest and they are forecast to reduce exports from 7 million metric tons (mmt), about 275 million bushels to 4 mmt, or 160 million bushels. Additionally, it seems clear that China will join the World Trade Organization (WTO) soon and some analysts predict this will benefit U.S. exports. However, there is also a view that China will aggressively market some surplus stocks soon to make way for the WTO process. China has traditionally carried a massive inventory of corn and wheat. As recently as the end of the 1999-00 marketing year USDA pegged Chinese ending corn stocks at 102 mmt, about 4 billion bushels.

Major U.S. corn customers will, as usual in recent years, include Japan, Mexico, South Korea and Southeast Asia. Early sales to Japan and Mexico have been encouraging and seem to indicate an end to the Starlink problem with Japan. Sales to-date have been somewhat disappointing to Korea as they have been making purchases from China. Farmers need to track weekly export sales and export shipments of corn from the U.S. These reports (one on Monday and one on Thursday) give the data compared to the prior week and to the prior year's total as of the same date. Since USDA is looking for only a 35 million bushels increase in total annual corn exports from the U.S. it will be very easy to compare the weekly data to that from one year earlier and have some idea if USDA's prediction of the total annual export projection is holding up.

Price Prospects

Exports at 1.975 billion bushels coupled with a record domestic use projection of 7.85 billion bushels produce a projected new record total disappearance for the 2001-02 marketing year of 9.825 billion bushels, some 70 million bushels greater than the record just set in the 2000-01 season. This leaves a projected ending corn stock figure of only 1.356 billion bushels, which equals a stocks/use ratio of 13.8 percent. Stocks represented nearly 20 percent of use for last season and the season's average price for the 2000-01 crop is currently listed at \$1.85 per bushel. USDA is using a price range of \$1.95 — \$2.35 for the 2001-02 marketing year average in their September WASDE.

The situation seems to indicate stronger prices than farmers have seen since the 1997 crop year. The demand side seemed pretty solid until September 11. It still should be ok, but the U.S. macro-economy seems to be more weakened than one might have imagined a few weeks ago. Farmers need to hope the weekly export numbers and the quarterly stock numbers indicate a continuation of robust demand.

The crop size question is still very unclear. This crop could easily get slightly larger to 200 million bushels smaller. If the crop size stays close to the current number of 9.24 billion bushels the market should be near a harvest season low. The market would be expected to make a recovery during late fall to early winter. The extent of the recovery, if any, would be conditioned by South American planting weather this fall and the pace of disappearance of U.S. corn over the next several months.

The relatively modest projected ending stocks and the continuation of robust demand should mean the market will have to bid for corn acres in the U.S. by next spring. Given that crop size is still uncertain and the U.S. macro economy is somewhat troubled it will be important for any price rally to have evidence that demand is still strong. Therefore, it may be somewhat more risky than normal to simply store corn and hope for a price increase greater than the storage costs.

Currently, the price spread for January or later delivery coupled with the largest LDP's of the season provide a net return after storage charges are deducted that is well above county marketing assistance loan rates. Another strategy would be to put the corn under loan and use the 60 day "lock-in" procedure to set the loan repayment rate when it is believed the market has bottomed.

Soybeans

Production Prospects

U.S. soybean plantings commonly ranged between 58 to 63 million acres from 1985 until 1996. Since the passage of the 1996 farm bill acres devoted to soybean production have grown each year and are currently pegged by USDA at a record setting 75.2 million acres for the 2001 crop year. Typically, about 1.1 to 1.5 million acres of soybeans are not harvested for a variety of reason mainly centered on some degree of crop failure. This year USDA is expecting a harvest of 74.1 million acres.

Soybean production in the U.S. continues to migrate West out of the Southeast. This fall, South Dakota is projected to harvest 4.25 million acres of soybeans, Kansas, 2.9 million acres and North Dakota 2.27 million acres. The major soybean producer in the South/Southeast is Arkansas with a projected harvest of 2.95 million acres. Kentucky, Mississippi, North Carolina and Tennessee are the only remaining States in the region that harvest more than 1 million acres.

As soybean production has shifted westward soybean yield has shown a trend increase of about 6 bu/acre per year. Some of this improvement is probably due to the reduction in the number of drought prone double crop soybean acres in the South. Other improvements include the shift to solid seeded soybeans, new varieties and better weed and harvest management by farmers. Trend yield analysis

projected a yield for the 2001 crop of 39-40 bu/acre with the difference being dependent on the exact data set used in the time series analysis.

In August, the first WASDE with an objective yield base of data, USDA projected a yield of 38.7 bu/acre. Many market analysts were confident the crop had suffered some significant damage from heat and dryness during late July and early August. They were disappointed when the September WASDE contained a soybean yield projection of 38.2 bu/acre. Market watchers now seem unsure of themselves when it comes to predicting this year's actual soybean yield. It has been very common for the "final" production number, which is issued in January, to vary from the September projection by more than 100 million bushels. Actual 2001 soybean crop size is still far from being known with much accuracy.

Usage Prospects

The "good news" in soybeans has been that record production has been matched with record use and therefore kept carryover stock levels modest. As in corn, the strong U.S. economy, with robust growth in per capita meat consumption and an increasing population base has provided a strong foundation for increasing use of soybeans in the domestic crushing industry. USDA is currently forecasting an increase in domestic crushing of U.S. soybeans from last year's 1.635 billion bushels to a new record level of 1.66 billion bushels. This record use will require strong demand from the U.S. livestock feed industry (animal numbers down slightly) and also be supported by a very significant increase in the export of U.S. produced soybean oil.

USDA expects an increase in soybean oil exports from 1.4 billion lbs. to 2.55 billion lbs. due to smaller supplies of other edible vegetable oils and due to a short-run reduction in global palm oil production. Soybean meal exports from the U.S. are expected to be down only fractionally to 7.6 million tons from last season 2nd largest exports ever of 7.75 million tons.

Exports of whole soybeans are also expected to remain strong. The current WASDE projection places total annual exports for the 2001-02 marketing year at 990 million bushels. This would be the 2nd largest export of U.S. soybeans in history and only fractionally smaller than last year's 1 billion bushels export level. This level of U.S. exports assumes that Brazil will produce a crop of 39 mmt (1.433 billion bushels). Brazilian production for the 2001 crop year is now listed at a record setting 37.5 mmt. USDA forecast the Argentine soybean crop for the 2002 at 26 mmt (955 million bushels) which equals the record they established this past spring.

The major importers of whole soybeans are expected to remain the EU-15 — 17.7 mmt, China, — 14 mmt, and Japan 4.85 mmt. The major soybean oil importers should be China and Pakistan, while the EU-15 is expected to be the dominant world soybean meal importer.

Price Prospects

USDA currently forecast a U.S. soybean crop size of 2.834 billion bushels for the 2001-02 marketing year, a new record compared to last year's production of 2.77 billion bushels. They also are

forecasting a total use of 2.823 billion bushels which exactly equals the record use from last season. The net result of all the September WASDE data is contained in the projected ending stock number for next August 31 — 255 million bushels vs. this year's figure of 240 million bushels.

With total use over 2.8 billion bushels a stock/use ratio of 9 percent is not burdensome. Notice the key words — total use over 2.8 billion bushels. USDA is also assuming that South American soybean production, which is not yet planted, will be up only 1.5 mmt (55 million bushels) in Brazil with no increase in Argentina.

There is still much uncertainty in the soybean price outlook. U.S. crop size is still unknown, South America planting decisions await and the export demand picture is just beginning to unfold. In September the USDA projected a season's average price for the entire 2001-02 soybean marketing year to fall within a range of \$4.40 to \$ 5.40 per bushel. Average soybean prices for the past two crop years have been \$4.63 for 1999-00 and \$4.55 for the just concluded 2000-01 season. USDA is saying from just slightly worse than the past two years to significantly better.

With prices well below loan rates there seem to be few choices. Farmers who have the space to hold both corn and soybeans may chose to put the soybeans under loan and use the 60 day "lock-in" procedure to try and capture a net price above the loan rate. If storage space is a problem the market is dictating corn storage over soybeans. Soybeans could be priced and the LDP set on the same day to insure receipt of the loan rate for a total price and do nothing else. Farmers who want to gamble that prices are headed higher (U.S. or South America crops smaller) may want to replace sold soybeans with the purchase of call options.

Given the earlier comments about the market having to bid for corn acres next spring, farmers should not lose sight of the marketing jog that awaits for expected 2002 soybean production.

Wheat

Soybeans are not the only U.S. crop to be impacted by the 1996 farm bill. The 1996 law eliminated target prices and allowed nearly complete freedom in planting decisions. The target price for wheat in the U.S. had been \$4.00 per bushel, or higher, since 1982. Under current law the closest thing to the old target price is the marketing assistance loan rate. The national average loan rate for wheat is \$2.58 per bushel. World and U.S. wheat crops have been abundant since 1997 and prices have been low. U.S. wheat prices have been in the range of \$2.50 to \$2.60 per bushel since the 1998 harvest. Acreage devoted to wheat production (acres harvested) in the U.S. has declined from 62.9 million to an estimated harvest of 49.3 million acres in 2001.

Total disappearance of U.S. produced wheat has been in the range of 2.3 to 2.4 billion bushels since the 1988 wheat marketing year. In general, human food use has grown at a very modest, but stable rate over that time period. Per capita consumption has not changed much, there has not been a lot of new bread products, while the population has continued to increase. Livestock feed use of wheat is very minor

and depends on the price and availability of corn, sorghum and poor quality wheat. It is the export market that has been very disappointing.

U.S. wheat exports have been fairly flat at roughly 1.05 billion bushels for the past five years. USDA is forecasting exports to reach only that level in the 2001-02 wheat marketing season. This poor export performance is projected in spite of the fact that world wheat production and ending stocks are projected to drop for a third consecutive year.

The conservative wheat export forecast for the U.S. is due in part to larger crops being forecast in Russia, Ukraine, Syria, India and Brazil. This will allow several countries to make modest exports and reduce the need for imports from countries such as Brazil.

USDA is projecting a price range of \$2.70 to \$3.10 for a season average for the entire 2001-02 wheat marketing year. This compares to \$2.62, \$2.48, and \$2.65 for the past three U.S. wheat marketing season's average prices.

The U.S. wheat marketing year starts in June. Weekly export sales and shipment data to-date have been below the levels needed to justify USDA's projection of total annual exports of 1.05 billion bushels. This well known data and the pressure of corn and soybean harvest are putting pressure on wheat prices. It will be difficult for wheat prices to stage any meaningful rally until there is evidence that some one wants to buy U.S. wheat.

Farmers need to carefully monitor winter wheat planting and emergence conditions. USDA has projected a very modest wheat carryover for next summer of only 632 million bushels. If the new crop has any problems or if exports were to pick up wheat prices should rally modestly from currently depressed levels. There should be some marketing opportunities between now and late winter for next year production.

Dairy Situation and Outlook: Fall 2001

Leigh Maynard

Overview

Current conditions are very favorable for dairy producers, with surprisingly high milk prices and milk-feed ratios well above average. Anticipate falling prices, however, from November through Spring, 2002, as producers use profits to expand, milk per cow resumes its upward trend, and the economy slows. The existing pricing system favors Kentucky, where most milk goes to high-value fluid uses. Kentucky has access to good forages, is less affected by environmental regulations than Western dairy states, and is positioned near large population centers. Threats include a huge cost disadvantage relative to Western producers, and extremely low average milk per cow. Little leeway exists for additional government support, but private risk management opportunities exist, and new products show promise in enhancing dairy demand.

The Current Situation: High Farm-Level Prices and Lower than Average Costs

The dairy market staged a surprising recovery in 2001. Most forecasters expected the industry to be plagued with over-capacity until well into the year, extending the low prices of 2000. However, unfavorable springtime weather in the West, high replacement heifer prices, and cow number reductions cut supply more than expected. The “year without a spring flush” left cheese and butter plants competing with each other for scarce milk supplies, and for the first time in at least 14 years, Class III and Class IV milk prices rose each month from January through June. Class I milk is used for fluid purposes, Class III milk is used for cheese, and Class IV milk is used for butter and non-fat dry milk powder.

Understanding what drives Kentucky’s farm-level milk prices requires a little background information. Since January, 2000, monthly Class I prices are determined by the higher of the Class III or Class IV price. The Class IV price has been higher during all months except July and August, 2001. The futures market predicts that the Class III price will be higher through November, then the Class IV price will take over again as the Class I driver. Why is this important? Most of Kentucky belongs to two Federal Milk Marketing Orders that have a very high Class I utilization rate (the percentage of production used for fluid milk), typically in the 60-75 percent range. So, the largest butter (and for a few months, cheese) producing regions have a big influence on the fate of Kentucky’s dairy farmers. California is the main producer of butter and powder in the U.S., and California accounts for the majority of the cheese sales on which Class III prices are based. The bottom line is that California dairy production and the butter market are perhaps the two most important factors affecting Kentucky farm-level milk prices.

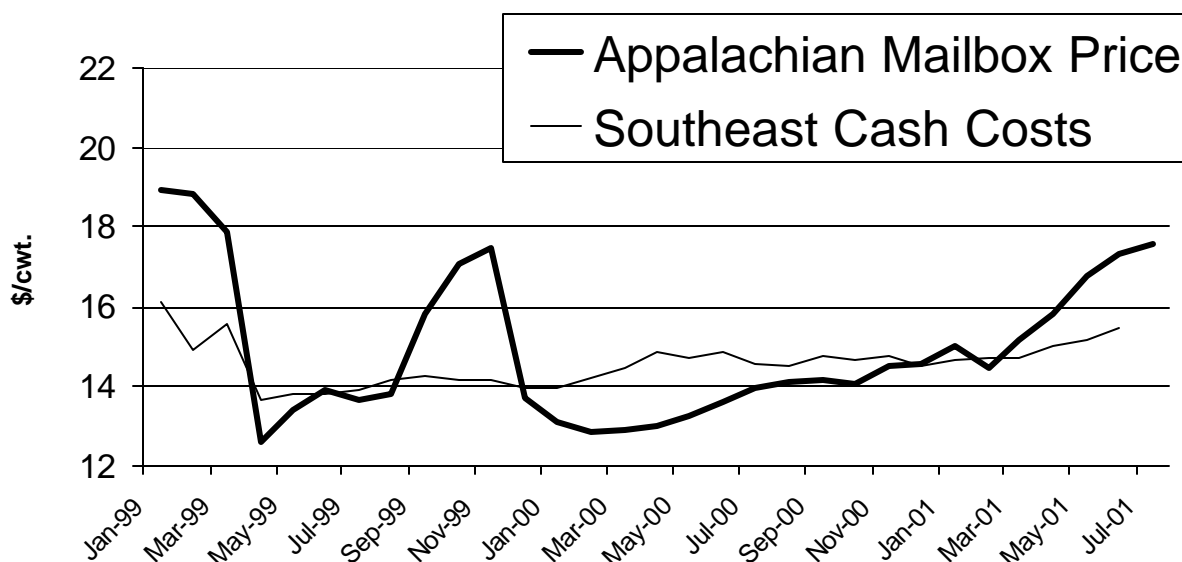
Western dairy expansion peaked in October, 2000, and the rate of increase has since slowed in response to low milk prices in 2000 and early 2001, as well as environmental constraints on new mega-dairies. However, the growth rate in cow numbers is still 3.7% over last year, and growth has resumed in milk per cow. Butter prices peaked at \$2.225 per pound on August 29th. While butter prices are expected to remain well above average, they will probably decline for the rest of the year due to seasonal

increases in milk production, adequate stocks, and declining consumer confidence.

Cheese prices are also high but expected to decline for the remainder of the year. American cheese production was lower than the 1998-2000 trend for the first seven months of 2001. Cooler weather is now helping milk volumes recover, and correction of a USDA reporting error now reveals that cheese stocks are probably adequate for the holiday buying season. Both of these supply side factors will depress prices, and the prospect of a slipping economy may depress prices from the demand side. A positive demand-side factor is the seasonal increase in cheese usage during the school year.

2001 is a much better-than-average year for Kentucky farm-level milk prices. Mailbox prices have been climbing steadily since March, 2000. The average in the Appalachian marketing order for the first seven months of 2001 was \$16.03/cwt., which is 21 percent higher than 2000 and 3 percent higher than 1999 mailbox prices for the January-July period. The Appalachian marketing order covers most of Kentucky, including Adair County. Mailbox prices in the Southeast marketing order, which includes Barren County, average \$0.68/cwt. lower than the Appalachian order.

Mailbox Prices Were Higher Than Cash Costs During 2001



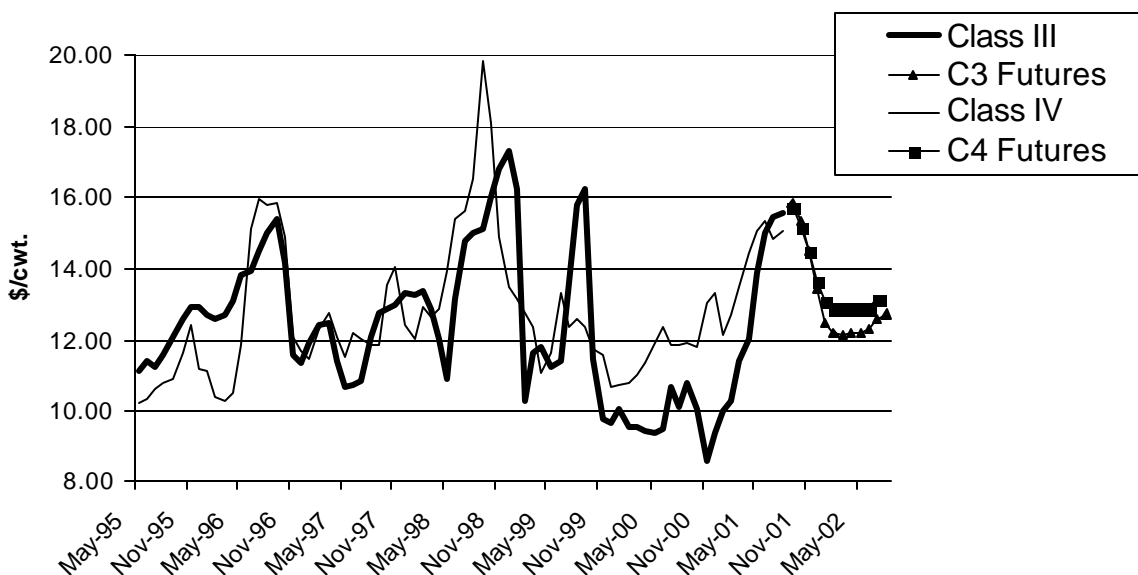
Not only are milk prices high in 2001, but the milk-feed price ratio is high. In every month since January, the milk-feed ratio has been above the 1985-2000 average. In June and July, the ratio was the highest it has ever been since at least 1985. This is a different situation than the period of record-high mailbox prices of late 1998, when costs were also high, and more closely resembles conditions in late 1999. Historically, the Southeast is second only to the Northeast in terms of average total cash expenses, but is competitive with the Upper Midwest and the Corn Belt in terms of average total economic costs, which include noncash expenses such as unpaid labor. The Pacific region has a huge cost advantage in both total cash expenses and total economic costs, explaining its increasingly dominant position in the dairy industry.

Outlook: Expanding Supply and Weakening Demand Will Lower Prices

Today's high prices are largely the result of a lagged supply response to last year's low prices. With replacement heifer prices running very high, many farms retained cows in late lactation, which dragged down milk per cow numbers. Farmers will respond to today's profitable conditions by expanding herds and improving productivity with fresh cows, tempered somewhat by the high replacement heifer prices. Unfavorable weather and the tail end of a decade-long economic boom were supportive price factors that may be absent in the coming year. Butter stocks are above year-ago levels, cheese stocks are higher than previously thought, and recession with its accompanying decline in food-away-from-home expenditures appears increasingly likely.

Milk prices have a history of climbing for several months, then falling hard in one or two months. Recent examples are the \$2.52/cwt. drop in the Basic Formula Price (essentially the Class III price) between October and November, 1996, the \$6.00/cwt. crash between January and February, 1999, and the \$4.77 collapse between September and October, 1999.

Class III and IV Milk Prices Since 1995, with Futures Market Forecasts



Dairy economists and futures markets have done a poor job of predicting the magnitude of milk price changes more than two months in advance. The current price trajectory resembles that of late 1996, late 1998, and late 1999. In each case, futures markets underestimated the eventual drop in prices until the futures contracts were within one or two months of expiring. As of this writing (September 25th), the futures markets are predicting that 2002 Class III prices will decline to about \$12/cwt. Prices fell well below \$12/cwt. during the 1996, 1998, and 1999 collapses.

This dairy economist has learned that predicting distant milk prices is often futile, but recent history clearly shows that Kentucky dairy farmers should have a plan to deal with the possibility that Class III

prices will fall well below \$12/cwt. between January and May, 2002.

Opportunities for Dairy Farmers to Manage Price Risk

While the previous paragraph was being written, the November Class III futures contract lost \$0.50/cwt. in value, and the early spring contracts dropped just below \$12/cwt. This illustrates the volatile nature of milk prices. Following reductions in federal price support levels and greater exposure to global competitive forces, price risk grew substantially in recent years. Buying put options is perhaps the simplest, safest way for individual producers to avoid income loss from falling prices.

Options are like “price insurance”. For example, today a farmer might pay a premium of \$0.40/cwt. to buy a \$12 December Class III milk put option. If the December Class III milk price ends up being \$11/cwt., the option will be worth \$1/cwt. ($\$12 - \11) when it expires. The farmer then collects a net gain of \$0.60/cwt. ($\$1.00 - \0.40) that helps offset the low mailbox price in December. In this example, the farmer has effectively bought a Class III price floor of \$11.60/cwt. ($\$12.00 - \0.40). If the farmer’s December mailbox price is typically \$2.00 above the Class III price, the farmer expects to earn a mailbox price of at least \$13.60/cwt. ($\$11.60 + \2.00), no matter how low Class III prices fall between now and December.

Buying put options limits a farmer’s downside risk, but still allows the farmer to benefit from high prices. This risk management strategy does not require any changes in the dairy’s operation, there is no risk of spending more on risk management than the premium paid up front, and it does not require any action or monitoring after the option is purchased. A farmer only needs to set up a hedging account with a qualified broker, and then call the broker with instructions whenever she wants to buy an option.

USDA’s Risk Management Agency offered the Dairy Option Pilot Program in 12 Kentucky counties in 2001. The program provides an introductory training session, and then pays 80 percent of the premiums for options purchased during the next four months. Its purpose is to provide such generous subsidies that farmers will try using options and eventually become self-sufficient in price risk management, rather than relying on Market Loss Assistance Payments.

Only 4.5 percent of the eligible farmers participated in the training sessions, and a much smaller number have actually purchased an option through the program, despite the almost ideal hedging conditions in 2001. Why? Some common reasons seem to be: (1) options are unfamiliar and learning about them is intimidating, (2) the broker relationship is intimidating, (3) the correlation between Class III prices and mailbox prices is not well documented, possibly rendering hedging ineffective, (4) the science and art of choosing when to hedge is viewed as risky in itself, and (5) sticker shock at the premium levels. Research is underway at UK to resolve uncertainty about dairy hedging effectiveness and to identify effective yet manageable dairy hedging strategies.

New Kentucky Farm Business Analysis Results

The annual Kentucky Farm Business Management (KFBM) Dairy Enterprise Analysis is a key tool

in identifying sources of competitive strength. The 2000 results, prepared by Colby Blair, Darwin Foley, and Jack McAllister, were just released. The 31 dairy farms in the program averaged 143 cows that averaged 16,763 pounds per cow per year. The 2000 average in the top-20 dairy states (of which Kentucky is a member) was 18,532 pounds per cow. The 2000 Kentucky average was only 12,803 pounds per cow. While some operations are competitive using a low productivity/low cost strategy, net returns were strongly correlated with milk per cow. In general, the KFBM sample typifies the segment of Kentucky's dairy industry that is most likely to remain competitive in the face of ongoing industry consolidation.

Given that 2000 was plagued by record-low prices, it is encouraging that the average net returns over all costs were only \$0.51/cwt. in the red, and 41 percent of the herds actually had positive net returns. The most profitable operations tended to make their money through higher milk per cow, marketing more beef, and lower non-feed cash costs. The middle third of operations in terms of profitability showed greater feed cost efficiency, but spent considerably more per cwt. on livestock supplies and hired labor. Farms with 101-150 cows tended to be the most profitable. The average total cost of producing milk was \$14.44/cwt.

Policy Issues and Market Developments Affecting Dairy in 2002

Other important issues to watch are the progress of the 2002 Farm Bill, continuing industry consolidation, and some exciting new product trends. While the terrorist attacks of September 11th did not immediately impact dairy markets much, they delayed legislative work on the 2002 Farm Bill. Despite this, the House is expected to begin considering its version of the Farm Bill in early October. Most observers think the Farm Bill will not be completed until 2002, with implementation beginning in 2003. Expected dairy components include an extension of the current support price structure. New budget priorities and WTO constraints on farm subsidies may limit the bill's generosity to dairy farmers. The Northeast Dairy Compact will likely expire without renewal on September 30th, after which the battle for re-authorization will commence.

Consolidation continues at all levels of the dairy market. At last count, Kentucky contains 1,898 dairy farms, compared to 2,731 in 1995. Unfortunately, no data exist to differentiate between those who were forced out by market conditions and those who would have retired anyway. The recent wave of cooperative mergers has left a much smaller number of players, especially in any given region. The merger of Suiza Foods and Dean Foods created a single firm with national processing capacity and a 30 percent fluid milk market share, with greater potential for anti-competitive behavior. The cheese market is dominated by Kraft and a handful of other firms, and the retail grocery sector now contains firms with national and international market coverage. One long-term effect of consolidation will be reduced reliance on open markets, and greater use of contracts, strategic alliances, and other forms of vertical integration that allow more reliable sourcing and tighter control over product attributes.

Fluid milk processors are re-positioning milk as a competitive beverage, with important potential benefits to both the dairy industry and the public. Flavored milk in single-serve re-sealable PET bottles has been highly successful in school vending machines, and extended shelf-life technologies broaden its appeal.

Flavored milk accounted for only three percent of retail milk sales in 2000, but it is driving sales growth. While chocolate milk dominates the segment, suppliers offer flavors as diverse as strawberry banana, French toast, and even pumpkin pie(!).

Livestock Market Situation and Price Forecasts

A. Lee Meyer

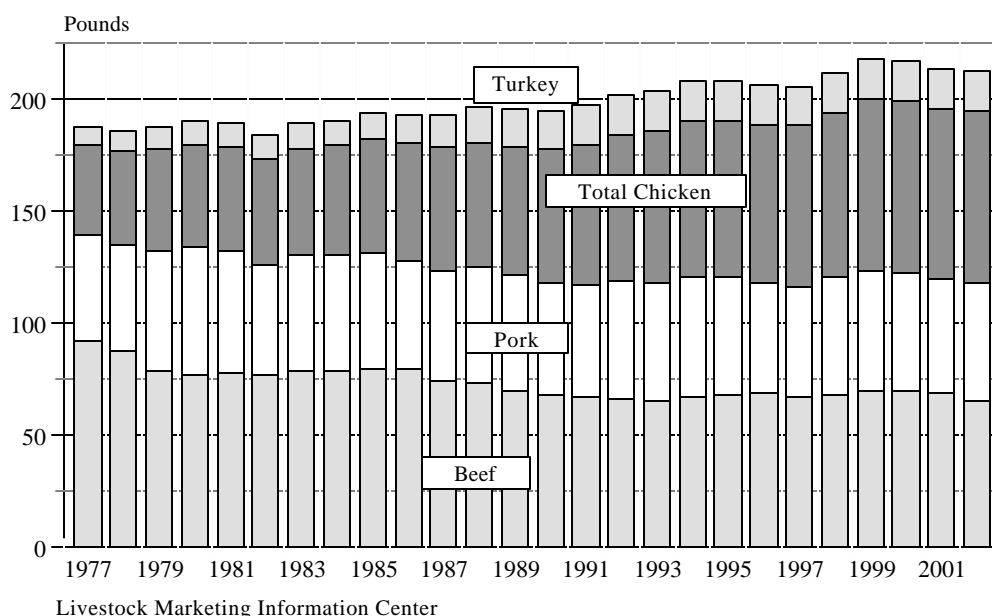
Across the board, Kentucky livestock producers have been making profits over the past year. According to USDA figures, the breakeven price for a farrow to finish hog operation was about \$37 per cwt. in mid 2000, and it has changed very little since then. With selling prices for hogs in the mid \$40s (\$43/cwt. in August, 2000, \$47 in August, 2001), hog production has been profitable. This is the third consecutive year of profits in the hog industry. While such breakeven standards are not available for calf production, the high calf price has been good for cow-calf operations. For most of the past two years, the Kentucky average price for 400 -500 lb. steers has been over \$1/lb.

Weakness in the U.S. economy will hurt the livestock industry. Consumer incomes have been a strong factor behind increases in meat demand in recent years (since 1998 for pork, since 1999 for beef). The September 11 attack and aftermath is adding to economic weakness. It is too early to forecast the extent of the impact on the meat industry and how it will affect particular segments, such as at-home compared to away-from-home consumption.

Meat consumption

Total per capita meat consumption for 2001 is forecast by the USDA to be about 216 pounds, down about 3 pounds from 2000's level and four pounds under the 1999 record. However, it will still be at the fourth highest level of all time. The 2001 decline came from small drops in beef, pork and poultry. For

U.S. Red Meat and Poultry Consumption (Per Capita, Retail Weight, Annual)



2002, further small declines are expected, however the causes will be different. Increases are expected in

both pork and poultry, but those are expected to be more than offset by a 3 pound per person drop in beef consumption.

With the changing economy, expenditures are difficult to forecast. Personal spending on meat as a percent of disposable income hit an all time low of 2% in 1995. It has since risen to about 2.5% because of higher prices and greater consumption. Beef prices are beginning to decline even with slightly less beef on the market, a preliminary indication of a weakening of demand.

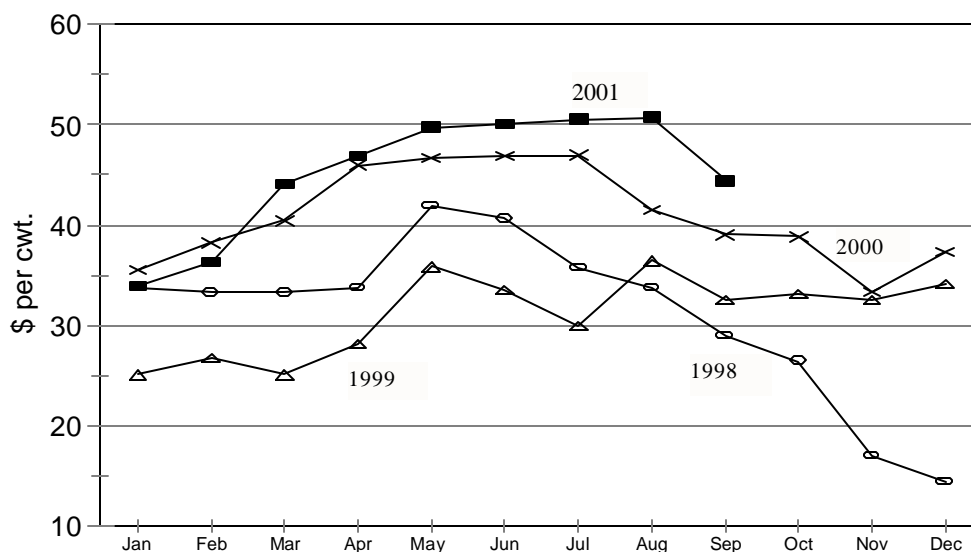
Hog Market May See More Production, Lower Prices

According to the University of Missouri, hog production has been profitable in 17 of the past 19 months, a trend which typically leads to expansion. While there are some indications that a modest expansion may be starting, it is unlikely to have a major market impact before the second half of 2002.

Recapping recent history, after the price disaster of 1998, when a 10% increase in production led to prices below \$20/cwt. the industry has rebounded. Demand strength has been an important factor, with trade also helpful. In 1995, U.S. pork industry exports exceeded imports for the first time in decades. Since then, it has continued to have a net positive trade balance of about 2% of domestic production.

The best evidence of demand strength is that even with some increase in production, prices have strengthened considerably over the past three years. In 1998, consumption was 52.5 lbs. per person and the average price was \$32/cwt. 2000's consumption was 52.4, yet the average price moved up 37% to \$44/cwt. While domestic demand has probably stabilized, an increase in exports will have left U.S. per capita consumption 3% lower than the 2000 level and has led to slightly higher prices.

Hog Prices (220-250 Lbs., Live Weight)



If demand remains stable, production levels will be the key factor in price determination. Given the continued profitability of the industry, modest expansion of 2% to 4% is expected. The price impact will

be a \$3 to \$5/cwt. price decline resulting in an average price for 2002 in the low \$40s (about \$58 on a carcass weight basis). If economic weakness leads to demand drops, prices for market hogs could be considerably lower, perhaps in the \$33 to \$38 range for the year. With breakeven prices in the upper \$30s, producers would face modest losses for the first time in about two years.

While spring 2002 hog prices had been forecast in the mid \$40s, those expectations have been tempered. The most likely scenario are prices in the upper \$30s during the winter, rising into the low \$40s during the late spring and up into the mid \$40s for the summer. If expansion has resulted in more pork, late 2002 hog prices could drop into the mid to low \$30/cwt. area.

Beef Demand and the Cattle Cycle are the Keys to the Cattle Market

During both 1999 and 2000, beef consumption rose and cattle prices also rose. This is the definition of an increase in demand and is a key to a profitable industry. A modest decline in cattle slaughter for this year has helped increase prices further, especially in the first part of 2001. A 5% drop in slaughter led to an increase in slaughter cattle prices up to \$79/cwt. Prices have declined in the second part of the year and will probably be near the low \$70s, about the same as in 2000. Feeder cattle prices have followed the same trend, settling at 2000 levels.

Since early September, Kentucky feeder cattle prices have declined by \$7 per cwt. With all of the attention the economy is receiving, it appears that demand weakness has moved through the beef industry. And while there is some truth in that reasoning, the fact is that a very similar price drop occurred in feeder markets in 2000. From early August to mid September, 2000, the Kentucky average price for 400 to 500 pound feeder steers dropped from \$107 per cwt. to \$97 per cwt. The lesson is that there are many factors affecting the market and they must be carefully analyzed before changing production and marketing strategies.

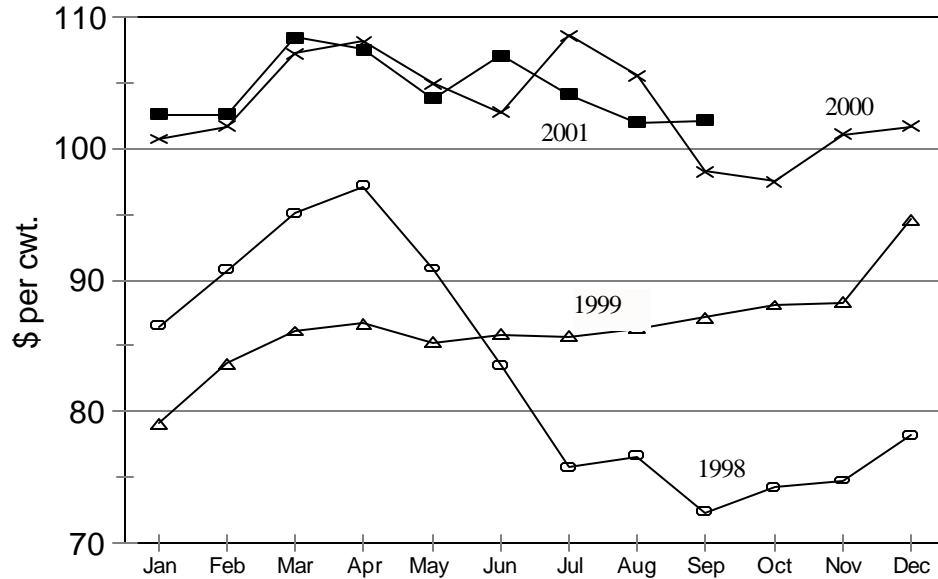
The weak economy is affecting demand, but it is too early to know the extent of the weakness. As an independent factor, this demand weakness would lead to lower prices. However, declines in beef production may offset the weakness in buying and help hold prices up.

The September USDA Cattle on Feed report includes two key factors affecting the market. The first is that the number of cattle on feed is up 5%, an indicator that beef production over the next few months is likely to increase. The result will be weaker slaughter cattle prices, with declines into the upper or even mid \$60s for finished cattle. The positive factor for the longer run is that placements during August were 10% under the 2000 level and 9% below August of 1999. If the decline in placements continues, beef production for 2002 will decline by 2% to 4% and slaughter cattle prices will average in the mid to upper \$70s. Strength of demand will determine whether this potentially strong market actually occurs.

Strong slaughter cattle prices, with cheap feed, leads to strong feeder cattle prices - which is the expectation for 2002. Again, assuming that demand does not crash dramatically, with building in modest weakness in demand, Kentucky feeder cattle prices are likely to rise slightly in 2002.

Backgrounding opportunities for Kentucky operations have been profitable and this trend is likely to continue. In the winter of 2000-01, a simple buy/sell margin of 400 lb. calves in the fall compared to the price of 700 pound yearling steers in the spring was about -\$14/cwt. This buy/sell margin level is about typical and is the most likely scenario for the 2001-02 backgrounding season. A simple budget with 400 pound calves purchased at \$100/cwt. has breakeven price of \$73 per cwt. , expected to give net returns over cash costs of \$40 to \$50 per head.

Feeder Steer Prices (400-500 Lbs, Liveweight)



While demand will be the driving force for next several months, the cattle cycle will be the key factor over the next two to four years. Based on the USDA Cattle Inventory Report, the number of cattle in the U.S. continues to decline slowly. The number of cattle, beef cows and beef replacement heifers are all down. The number of beef cows is at its lowest level since 1991. Fewer cattle, less beef, stronger prices is the process that has helped the industry in the past three years. Rebuilding of the cow herd has not begun - yet. Current weakness in cattle prices may discourage some cow herd managers. Others will look at lower feeder heifer prices and decide to hold heifers for breeding now that they are worth less. As heifers are held away from feedlots, beef production will decline and cattle prices will remain strong until the calves from the expanded herd reach the market. Given the current rate of expansion, this is not expected until 2004 or 2005.

Broiler Industry - More Expansion Expected

The broiler industry has had a history of 2% to 3% annual expansion. With little increase in production, strong exports, per capita chicken consumption actually is declining in 2001 from 77 to 76 pounds. The 12 city, wholesale price level has risen about \$.03 per pound, and will probably end the year near \$.60 per pound.

Based on chick placements, broiler production is expected to increase, probably 2% to 3% for the rest of 2001. If the trend in strong exports continues, the increase in production will be sent to other countries and U.S. consumption will stay flat. As a result, wholesale broiler prices are likely to average in the upper \$50s to low \$60s for 2002.

The 2001 Kentucky Land Value Situation and Outlook

Richard L. Trimble

United States Land Values

Farm real estate values, including land and buildings, across the United States continued to increase during 2000. As of January 1, 2001, the average value of all farm real estate across the nation was \$1,130 per acre. This is an increase of \$50 per acre or 4.6% in total value since January 1, 2000. This increase in agricultural land values continues an increasing trend that began in 1987, following the end of the Farm Financial Crisis. This 4.6% increase is considerably greater than the 2.9% increase that occurred during 1999.

Regionally, agricultural land values increased from 1.4% to 8.2% during 2000. The Southeast and Appalachian regions demonstrated the largest increases of 8.2% and 8.0%, respectively. All regions continued to experience increases with record high values being observed in all but the Southern and Northern Plains areas. Urban influences in the Northeast Region helped to push land values to the highest average regional value of \$2,640 per acre. The Mountain region continues to have the lowest average land value of \$486 per acre followed closely by the Northern and Southern Plains with average values of \$547 and \$640 per acre, a result of the influence of extensive pasture and rangeland characteristic of the regions.

Kentucky Agricultural Land Values

During 2000 Kentucky farm real estate values, including land and buildings, increased from \$1,600 to \$1,770 per acre. This is an annual increase of 10.6% which is more than twice the 4.6% increase for the United States. Only Wisconsin, North Carolina, and Georgia experienced gains greater than those occurring in Kentucky with increases of 17.6%, 12.0% and 11.7%, respectively.

Kentucky farm real estate values have steadily increased for the past 14 years. Since reaching a low of \$878 per acre in 1987 they have steadily increased to the current level of \$1,770 per acre. This represents an increase of more than 102% since the most recent low was established in 1987.

As indicated in Table 1, the change in Kentucky land values is the greatest in the region including the seven states that surround it. Only Missouri, with an increase of 10.4%, demonstrated an increase comparable to that experienced in the Commonwealth. Most of the other surrounding states demonstrated more moderate increases ranging from 2.9% in Illinois to 6.1% in West Virginia. No surrounding states experienced a decrease in agricultural land values as did Illinois, Indiana, and West Virginia during 1999. These changes in farm land values seem inconsistent with current agricultural economic conditions which are characterized by relatively low commodity prices. Undoubtedly, it is a reflection of the urban or non-farm demand for land for metropolitan expansion and recreational uses.

Table 1. Average Per Acre Value of Farm Real Estate, Kentucky, Surrounding States, and 48 States, 1994-2001.¹

State	1994	1995	1996	1997	1998	1999	2000	2001	Change 00-01 Percent
Kentucky	1,140	1,250	1,300	1,350	1,450	1,530	1,600	1,770	10.6
Illinois	1,670	1,820	1,900	1,980	2,130	2,250	2,380	2,450	2.9
Indiana	1,500	1,620	1,740	1,870	2,060	2,220	2,350	2,450	4.3
Missouri	825	880	950	1,010	1,070	1,130	1,250	1,380	10.4
Ohio	1,560	1,750	1,820	1,890	2,040	2,220	2,300	2,400	4.3
Tennessee	1,250	1,340	1,530	1,650	1,810	1,950	2,150	2,240	4.2
Virginia	1,590	1,720	1,840	1,880	1,920	2,040	2,200	2,300	4.5
West Virginia	869	920	980	1,050	1,090	1,070	1,150	1,220	6.1
48 States	798	844	887	926	974	1,020	1,080	1,130	4.6

¹ Value of farmland and buildings as of January 1. Source: National Agricultural Statistics Service, USDA, Washington, D.C.

It may also be a reflection of the current situation in the general economy which has been characterized by low interest rates and a stock market that has been performing poorly. These factors may be influencing investors to consider farm land investment as an alternative to the stock market. In addition, current government farm programs and emergency aid may be providing farm business managers with sufficient liquidity to encourage land purchase for expansion purposes.

To augment the Kentucky real estate value data provided by the National Agricultural Statistics Service (NASS), a survey of Kentucky County Extension Agents was conducted as part of the Economic Subject Matter training meetings during October, 2000. The statewide survey involved all Agents participating in five training sessions and resulted in 59 useable responses. For reporting purposes, the state was divided into three regions, East (counties east of I-75) with 21 counties reporting, Central (counties between the Green River Parkway and I-75) with 21 counties reporting, West (counties west of the Green River Parkway) with 17 counties reporting. The results of this survey are presented in Table 2.

A comparison of the estimates provided by the NASS and the Kentucky survey indicates that the Agent Survey estimate of farm real estate values are considerably higher than those provided by the NASS. In making such comparisons one must realize that the Agent Survey is not scientific in nature, as is the NASS estimate. However, the survey results do provide a regional breakdown to make them

somewhat more useable at the local level.

Table 2. Average Price of Kentucky Agricultural Land and Expected Rate of Price Change Over Next 12 Months, October, 2000.¹

	State	East Kentucky	Central Kentucky	West Kentucky
Average Price of Ag. Land and Buildings	\$2,266	\$2,524	\$2,086	\$2,169
Expected Change in Next Year	3.1%	3.5%	5.4%	-0.3%
Average Price of Crop Land (bare land)	\$1,903	\$2,124	\$1,824	\$1,729
Expected Change in Next Year	2.8%	3.8%	4.2%	-0.2%
Average Price of Pasture Land	\$1,439	\$1,721	\$1,524	\$985
Expected Change in Next Year	5.3%	4.3%	6.1%	5.7%

¹ *Source: Survey of participants in Economic Subject Matter Training Meetings, October, 2000.*

The Kentucky Survey estimated the average value of farm real estate, including land and buildings, to be \$2,266 per acre whereas the NASS estimate was \$1,770 per acre. However, when you compare the average value of crop land at \$1,903 per acre or pasture land at \$1,439 per acre, the values become more comparable. Further, when you look at a regional breakdown of the survey data, the values reported in the West Kentucky region are quite comparable to the values reported by the NASS. Across all types of land, West Kentucky has considerably lower land values than do the other areas of the state.

The regional breakdown of land values certainly suggests that there is a large urban influence on agricultural real estate values in the Commonwealth since the urban centers of Northern Kentucky, Louisville, and Lexington are located in the Central and Eastern areas of the state. Another reflection of the non-farm influence on agricultural land values is indicated by Agents expectations about future changes in land values. West Kentucky Agents indicated an expectation that both the value of Agricultural and Crop Land would decrease in the coming year, reflecting the low grain prices that have been prevalent for the last few years. Only Pasture Land was expected to increase in value reflecting the relatively good beef prices that have been enjoyed by beef producers recently.

Kentucky Land Rental Rates

Land ownership is not the only method by which producers can acquire control of this important input to the agricultural production process. Another important method of getting use of land

is by leasing or renting. Both land owners and tenants are interested in current developments that have taken place in the land rental market.

Crop land cash rental rates for Kentucky and surrounding states are presented in Table 3. Kentucky crop land cash rents decreased \$2.00 per acre during 2000, going from \$74.00 to \$72.00 per acre. Rental rates were unchanged in most of the states surrounding the Commonwealth. Only Missouri and Ohio experienced increased land rental rates while Tennessee demonstrated a slight decrease.

Table 3. Crop Land Cash Rental Rates, Kentucky and Surrounding States, 1997-2001.¹

State	Cash Rent (\$ per acre)					Rent to Value (in %)				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Kentucky	70.00	65.00	70.00	74.00	72.00	4.8	4.2	4.3	4.9	4.1
Illinois	109.00	111.00	111.00	119.00	119.00	4.9	4.7	5.1	5.3	4.9
Indiana	97.30	98.00	99.00	100.00	100.00	4.9	4.5	4.7	4.5	4.1
Missouri	56.00	57.00	59.00	62.00	65.00	5.5	5.3	5.4	5.0	4.7
Ohio	72.50	73.20	73.70	74.00	76.00	3.4	3.2	3.5	3.3	3.2
Tennessee	56.50	57.00	62.00	60.00	59.50	3.4	3.2	3.3	2.9	2.7
Virginia	36.50	35.00	35.70	36.50	36.50	1.8	1.7	1.8	1.7	1.6
West Virginia	32.00	29.00	28.00	26.00	26.00	3.2	2.7	2.5	2.5	2.1

¹ Source: National Agricultural Statistics Service, USDA, Washington, D.C.

Table 3 also presents the calculated rent-to-value ratios for the eight states. This ratio or percentage is often used to compare land cash rental rates to real estate values across regions. All eight states in the region experienced reduced rent-to-value ratios during 2000. These lower ratios across the region are undoubtedly a reflection of current low grain prices and expectations that they will continue in the near future. These changes are much more consistent with existing and expected agricultural economic conditions than are the observed changes in agricultural land values.

Table 4 reports results of the Agent's Survey concerning cash rental rates for agricultural land. As with the comparison to NASS estimates of real estate values mentioned earlier, the reported values differ to some extent. However, the difference was not great. The Agents Survey estimated a crop land cash rental rate of \$66.63 per acre whereas the NASS estimate was \$72.00 per acre. A comparison of the rental rates by region indicates that West Kentucky has by far the highest crop land cash rental rate of \$81.25 per acre while Central Kentucky's rate was \$65.24, and East Kentucky's

rate was \$55.84 per acre. The higher rate in West Kentucky reflects the greater agricultural productivity of land in this part of the Commonwealth.

Table 4. Typical Kentucky Crop and Pasture Land Cash Rental Rates, Rent as Percent of Value, and Expected Change in Rental Rates Over Next 12 Months, October, 2000.¹

	State	East Kentucky	Central Kentucky	West Kentucky
Typical Crop Land Cash Rental Rate per Acre	\$66.63	\$55.84	\$65.24	\$81.25
Rent as Percent of Value	4.1%	3.9%	3.8%	4.7%
Expected Change Over Next Year (in Percent)	1.5%	0.4%	1.4%	3.0%
Typical Pasture Land Cash Rental Rate per Acre	\$30.04	\$28.75	\$29.60	\$32.33
Rent as Percent of Value	2.6%	2.7%	2.0%	3.2%
Expected Change Over Next Year (in Percent)	3.0%	2.6%	2.9%	3.6%

¹ *Source: Survey of participants in Economic Subject Matter Training Meetings, October, 2000.*

Table 4 also reports the expected change in rental rates for the next year. The Agents in all areas expected crop land cash rental rates to increase. However, the Agents in West Kentucky expected a much larger increase of 3.0% than did Agents in the Central (at 1.4%) and Eastern Kentucky (at 0.4%). These differences in expectations may simply be a reflection of the difference in the type of farming operations characteristic of the regions of the state.

Table 4 also reports Agents' estimates of pasture land cash rental rates which NASS no longer reports for Kentucky. These values are quite similar across the Commonwealth at about the estimate for the whole Commonwealth of \$30.04 per acre. The results concerning expected changes in the future are also quite similar. But, the expected increase in pasture land rental rates in Central and Eastern Kentucky are considerably greater than are those for crop land. These expectations undoubtedly reflect the improved price situation the beef industry has been experiencing.

Crop share rental arrangements are also a common method of obtaining control of crop land in Kentucky. Table 5 presents results of the Agents Survey which indicate that 33% of the land rented in Kentucky is rented on a crop share basis while 67% is rented on a cash basis. This breakdown shows a small increase in the use of cash rental agreements from 1998 and 1999 when cash rent was prevalent in 56% of rental agreements. However, the breakdown by regions of the state has changed markedly. Agents in West Kentucky estimated that only 38% of land was cash rented in 1998, by 1999 this had increased to 58%. In 2000 the use of cash rental agreements had decreased to 54% in West

Kentucky. But, it had increased markedly in East Kentucky, going from 48% in 1999 to 67% in 2000. A similar change had occurred in Central Kentucky where the use of cash rent increased from 63% in 1999 to 76% in 2000.

Table 5. Commonly Used Kentucky Crop Land Rental Arrangements, October, 2000.¹

	State	East Kentucky	Central Kentucky	West Kentucky
Cash Rental	67%	67%	76%	54%
Crop Share Agreement	33%	33%	24%	46%
Most Common Crop Sharing Arrangements:				
50/50	47%	86%	42%	6%
40/60	17%	14%	29%	6%
33/67	12%	0%	0%	41%
25/75	24%	0%	29%	47%

¹ Source: Survey of participants in Economic Subject Matter Training Meetings, October, 2000.

Table 5 also presents a breakdown of the most commonly used type of crop sharing arrangements across the Commonwealth. The 50/50 crop sharing agreement is by far the most common. However, there is a vast difference between regions of the state. The Central and Eastern regions of the state use the 50/50 agreement to a much greater extent than it is used in West Kentucky. The 25/75 and 33/67 agreements seem to be in much greater use in West Kentucky than is the 50/50 arrangement.

Kentucky Agent Survey Results for 1996-2000

The annual survey of Agents described earlier has been going on since 1996. We have been able to collect annual estimates from Agents over five years. The results of the five years are reported in Tables 6 and 7. Table 6 reports the average value of Kentucky agricultural land over the five years (1996-2000) on both a statewide and regional basis. There were a few unexpected results reported over the five years.

First among these unexpected results is the apparent decline in the average price of Agricultural Land and Buildings from 1999 to 2000. This decline was consistent in both East and Central Kentucky. The only region reporting an increase was West Kentucky, which had reported a decrease in values from 1998 to 1999. These differences may be a result of the greater influence of the agricultural economics situation in West Kentucky and the greater urban influence in the other two regions. A further influence that may be reflected here might be the greater liquidity of farmers resulting from government programs providing emergency aid. A major surprise might involve the Agent Survey report concerning the change in the value of pasture land from 1999 to 2000. All estimates of pasture land values declined except for a slight increase in Central Kentucky. This seems inconsistent with the relatively good economic conditions being enjoyed by the beef industry with good product prices and

low feed prices.

Table 6. Average Price of Kentucky Agricultural Land, 1996-2000.¹

	Average Price of Ag Land & Buildings	Average Price of Crop Land	Average Price of Pasture Land
State of Kentucky:			
1996	\$1,651	\$1,608	\$1,014
1997	\$1,699	\$1,753	\$1,025
1998	\$2,022	\$1,971	\$1,212
1999	\$2,389	\$2,162	\$1,609
2000	\$2,266	\$1,903	\$1,439
East Kentucky:			
1996	\$1,300	\$1,358	\$684
1997	\$1,586	\$1,621	\$879
1998	\$2,044	\$1,714	\$1,168
1999	\$2,885	\$2,508	\$1,976
2000	\$2,524	\$2,124	\$1,721
Central Kentucky:			
1996	\$2,032	\$1,875	\$1,382
1997	\$1,883	\$1,804	\$1,363
1998	\$2,183	\$2,505	\$1,415
1999	\$2,203	\$1,969	\$1,500
2000	\$2,086	\$1,824	\$1,524
West Kentucky:			
1996	\$1,544	\$1,606	\$838
1997	\$1,677	\$1,923	\$871
1998	\$1,739	\$1,743	\$992
1999	\$1,687	\$1,801	\$1,034
2000	\$2,169	\$1,729	\$985

¹ Source: Survey of participants in Economic Subject Matter Training Meetings, October, 1996-2000.

Table 7 reports Kentucky crop and pasture land cash rental rates for 1996-2000. This table shows much greater variability in cash rental rates than one typically sees in results on a statewide basis. Looking at the results on a statewide basis, the cash land rental rates for both crop and pasture land appears to alternate between increases and decreases from year-to-year. These results seem to be at odds with the results reported by NASS over the period (see Table 3). However, this difference is most likely a result of differences in the timing of the estimates rather than actual differences in results. The one result in Table 7 that is consistent with economic expectations is the reported decline in cash rental rates for crop land in West Kentucky from \$90.54 per acre in 1997 to \$81.25 per acre in 2000. This downward trend seems to reflect the ongoing period of depressed crop prices during this period.

Kentucky Farm Real Estate Outlook

The outlook for farm real estate values in Kentucky seems clear, just as it has for the past few years. Most agricultural commodity prices, except beef, are relatively low across the board and have been for a number of years. This would suggest that agricultural real estate values should not increase. But, this has seemingly been the situation for a number of years and Kentucky farm real estate values

have been increasing for 14 years. The increase of 10.6% experienced during 2000 was quite large! It has become obvious that economic conditions in Agriculture are not the major driving force behind increasing farm land values. It is a combination of factors; including low interest rates, non-farm demand for land for housing and recreational uses, as well as government emergency and disaster aid programs that provide farm business liquidity, as well as farmer demand for land for expansion. Combining all these factors seem to point to an ever increasing value of agricultural real estate. The booming non-farm economy with low unemployment seems to have provided strong support for agricultural land values as traditionally non-farm folks start looking to enjoy the benefits of land ownership. However, the recent cooling of the general economy combined with the results of the terrorist related disasters that took place on September 11, 2001 may bring the booming economy to a drastic halt. Should that happen, much of the non-farm demand for agricultural land may evaporate. Further, major changes in the economy may result in different farm policies which do not include the same disaster and emergency aid programs that have been in place for the past few years. Should these changes take place, Kentucky farm real estate values will not continue to increase as they have in the very recent past.

Table 7. Typical Kentucky Crop and Pasture Land Cash Rental Rates, 1996-2000.¹

	Crop Land	P a s t u r e Land
State of Kentucky:		
1996	\$62.65	\$24.44
1997	\$60.24	\$23.88
1998	\$66.40	\$36.15
1999	\$57.54	\$25.11
2000	\$66.63	\$30.04
East Kentucky:		
1996	\$47.11	\$18.97
1997	\$40.75	\$19.43
1998	\$55.96	\$31.94
1999	\$53.33	\$24.54
2000	\$55.84	\$28.75
Central Kentucky:		
1996	\$51.82	\$23.66
1997	\$60.00	\$24.88
1998	\$64.41	\$35.88
1999	\$50.00	\$25.38
2000	\$65.24	\$29.60
West Kentucky:		
1996	\$84.25	\$27.41
1997	\$90.54	\$30.91
1998	\$88.21	\$44.62
1999	\$83.18	\$25.83
2000	\$81.25	\$32.33

¹ Source: Survey of participants in Economic Subject Matter Training Meetings, October, 1996-2000.

Status of Kentucky Aquaculture

William A. Wurts

Channel Catfish

Prior to 1995 there were fewer than 30 acres of “commercial” channel catfish farming, approximately 30,000 lb, in west KY. By 1998, acreage had increased to approximately 50 acres with an estimated 100,000 lb of catfish produced. In 2001, acreage increased to 200 acres and around 1,000,000 lb. Currently there are an additional 200 acres under construction that will bring catfish acreage and production to 400 acres and 2,000,000 lb, respectively, by autumn of 2002. The rapid growth from 1998 to 2002 can be linked to the creation of the Purchase Area Aquaculture Cooperative. Further expansion of commercial catfish farming in west KY will be dependent on the ability to develop and expand new markets.

There is little data available to quantify small-scale (1-3 acre ponds) home use catfish production in KY, but a very rough estimate would be 1,000-2,000 acres and 1,000,000 to 3,000,000 million pounds. Home-use farmers can produce fillets for personal consumption at a price of \$2.00/lb, versus retail prices at grocery stores of \$4.50/lb.

Market Conditions

Wholesale, live-weight prices for channel catfish have been slightly below \$0.70/lb for the past few months of 2001. Competition from lower-priced imports of Vietnamese catfish has softened wholesale prices nationally and in KY. It is estimated that these imports have captured 10% of the national market. Mississippi catfish farmers are claiming unfair competition and are lobbying for stricter labeling laws. However, they concede that they are supplying only 85% of current consumer demand for farm-raised channel catfish.

Resources

There are areas of Kentucky, e.g. the Purchase Area (20,000 acres), which are suitable for large-scale, commercial aquaculture (5,000 lb/ac). However, the vast majority of Kentucky farmers have limited availability of resources that can be allocated to catfish production. The key resources being water availability, land, capital, and/or time. Most of these people can not afford to quit the day job. Nonetheless, many of these individuals are interested in or have become involved in aquaculture. They are looking for additional farm enterprises that can be accomplished with minimal inputs, that is, a 5-gallon bucket and a pickup truck.

Small Scale Catfish Production

Small-scale, channel catfish farming can be conducted in small or large ponds filled with water from rain or wells. Ponds as small as 0.25 acre or as large as 20 acres are suitable. However, ponds in the 1- to 5-acre range are more practical. Stocking rates of 1,500 fish/ac can provide yields as high as 2,200 to 2,500 lb/ac annually. Custom feeding tables and lower stocking densities eliminate the added costs of aeration equipment and pond-side electricity.

Additionally, greater individual weight gains are achieved stocking 1,500 catfish fingerlings/ac. Some farmers spawn fingerlings and produce food-size fish in the same pond, year after year.

While wholesale or bulk sales of catfish are not practical for a small-scale producer, local retail sales and niche markets are more readily accessed by the 1- to 5-acre catfish farm. Live sales, retail markets and sales to live-haulers, paylakes, and recreational pond owners provide higher prices per pound than can be achieved selling to processing plants and wholesale buyers. Subtracting the cost of feed and fingerlings, retail sales (\$1.25-1.50/lb) in the surrounding area and nearby counties could provide cash returns as high as \$2,000/ac. However, these markets are small and easily saturated if more than a few producers locate in close proximity or within the same community. Small-scale, catfish production offers Kentucky's farm families quality food at wholesale prices, a source of supplemental income, and a means of diversifying farm enterprises.

Rainbow Trout

Trout farming is a well-established industry in KY. Statewide production has stabilized at approximately 400,000 lb/year. Potential for expansion is minimal as most of the suitable resources (high volume freshwater springs) for trout production have already been developed.

Freshwater Shrimp

By the end of 2000, there were approximately 20-30 acres of ponds devoted to freshwater shrimp production. While there is no current data for 2001, it is likely that there are now 50 acres in production. Production levels appear have become fairly stable at 900-1000 lb/ac. While there are no set pricing structures for freshwater shrimp, \$5.50/lb would be a reasonable wholesale value for heads-on, 13 count shrimp (13 shrimp/lb) in 2001. Pond-side retail sales have commanded prices of \$8.50 to \$10.00/lb. However, this represents a price of \$17.00 to \$20.00/lb for tail meat. It is likely that these retail markets could saturate easily. Retail prices of \$6.75/lb can generate per acre profits as high as \$2,000/acre.

Expansion of shrimp production in KY has been limited by the availability of juvenile shrimp for stocking. However, during the past year or two, several new hatcheries and nurseries have been developed in KY and TN. Future wholesale pricing and market saturation could affect market expansion.

Other Species

There are several additional species with future potential for KY. These include paddlefish, hybrid striped bass, largemouth bass, and Australian redclaw crayfish (freshwater lobsters). However, there are difficulties to overcome before large-scale commercial production can begin. Problems include market development, availability of juveniles for stocking, potential disease susceptibility, and/or well-established production technologies.

Freshwater Shrimp

Gross Revenue

	Yield 1000 pounds	Selling Price \$6.75/lb	Gross Revenue \$ 6,750	<i>Your Farm</i>
<i>Your Farm</i>				

Variable Operating Costs

	Units	Type	Cost per Unit	Cost		
Stocking Costs	16,000	prawns	\$ 0.10	1600		
Feed	40	50# bags	14.50	580		
Hired labor	32	hours	8.00	256		
Marketing Charge				405		
Other Operating Costs				486		
Total Variable Costs					\$ 3,327	
Interest on variable cost	6 months @ 10%				146	
Return Over Variable Costs					3,277	

Fixed Costs		Total Per Acre	Annualized			
Short Term - 5 yrs		\$ 355	\$ 71			
Long Term - 10 yrs		7,210	721			
Total Fixed Costs					\$ 792	
Return to Land, Capital & Management					2,485	

Operator Labor		43 hours	\$ 8.00	\$ 344		
Return to Land & Capital					\$ 2,141	

Notes: Based on per acre production

Additional References

Woods, Timothy, James Murdock, and Seth Riggins, Freshwater Shrimp Enterprise Cost and Return Estimates for Kentucky, Dept Ag Econ, UK, Ag Econ Extension Publication 98-05, December 1998.

Montanez, J.L., James Dillard, and Marty Fuller, Economic Analysis of Production of Freshwater Shrimp, Mississippi State Experiment Station Bulletin 985, October 1992.

Freshwater Shrimp

Production Cost = \$4,609/ac
 Stocking rate = 16,000 shrimp/ac

Profit/ac at different prices and production levels:

600 lb/ac @ \$5.50/lb = $\frac{\$ 3,300/\text{ac}}{\$ 4,600/\text{ac}}$

loss: (\$ 1,300/ac)

600 lb/ac @ \$6.75/lb = $\frac{\$ 4,050/\text{ac}}{\$ 4,600/\text{ac}}$

loss: (\$ 550/ac)

1,000 lb/ac @ \$5.50/lb = $\frac{\$ 5,500/\text{ac}}{\$ 4,600/\text{ac}}$

gain: + \$ 900/ac

1,000 lb/ac @ \$6.75/lb = $\frac{\$ 6,750/\text{ac}}{\$ 4,600/\text{ac}}$

gain: + \$ 2,150/ac

Break Even Price for Freshwater Shrimp Production	
lb/ac	\$/lb
600	7.68
700	6.58
800	5.76
900	5.12
1,000	4.61

Tobacco Quota Buyout Update

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.¹

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. 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 (see table for potential funding sources).

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.

¹ See Summary of the President's Tobacco Commission Report located at <http://www.uky.edu/Agriculture/TobaccoEcon/policy.html> or <http://www.fsa.usda.gov/tobcom/FRFiles/FinalReport.htm> for more details.

- 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.

Potential Funding Sources

Funding Option	Comments
Excise Tax	<ul style="list-style-type: none"> • This option is generally supported by health groups, opposed by tobacco companies, and has mixed support among farm organizations. In reality this option faces major political challenges in current Washington D.C. environment. • Each 5 cent/pack excise tax increase generates around \$1 billion of additional excise tax revenue annually. Accounting for consumption declines it would take approximately 17 years to funds a \$15 billion buyout with a 5 cent tax. Alternatively a 15 cent tax increase would generate around \$15 billion in approximately 5 years. However, as with any excise tax proposal additional “add-ons” could evolve and no guarantee that tobacco farmers would be appropriated the funds.
Federal Funds	<ul style="list-style-type: none"> • While tobacco farmers have been receiving federal funds recently (i.e., T-LAP), additional federal funds from the existing tax base is very unlikely to occur in current political environment. • Interesting to note though that next year’s farm bill may contain a quota buyout for peanuts.
Phase I Funds	<ul style="list-style-type: none"> • Political challenging (perhaps impossible) to coordinate within and across tobacco states
Phase II Funds	<ul style="list-style-type: none"> • Political challenging to coordinate within and across tobacco states. • Currently unadjusted funds totaling \$4.1 billion of the original \$5.15 billion remain in the fund to be distributed over the next 10 years.
Additional Company Funds	<ul style="list-style-type: none"> • For what in return? Lowering U.S. leaf prices would provide cost savings for leaf buyers, but the price reduction would likely have to be significant to generate noticeable economic benefits to the companies. This option would likely have to be “packaged” with other items such as other program changes, dropping federal and anti-trust suits, marketing changes, and possible support for regulatory changes. • Each 10 cent/lb reduction in U.S. tobacco prices yields an annual tobacco company leaf cost savings of approximately \$100 million annually. Thus, a 20 cent/lb reduction would only generate a U.S. cost savings of \$1 billion over 5 years. Additional leaf cost savings would accrue overseas as world tobacco prices fall in response to lower U.S. prices.
Lawsuits	<ul style="list-style-type: none"> • Funds could evolve from either the current federal lawsuit or the grower antitrust suit – both of which remain uncertain at this time.

Consumer Willingness to Pay for Local Meat Products

Kenneth H. Burdine, Leigh Maynard, and Lee Meyer

Locally produced meat products are considered by many as a potential source of income for Kentucky farmers. When the practical aspects of the enterprise are analyzed, it becomes clear that Kentucky farmers cannot produce and deliver commodity meat products as inexpensively as other states. The smaller, independently owned processors in Kentucky have higher per pound operating costs than large plants typical of the meat industry. Therefore, the profitability of a local meat system is dependent on the willingness of consumers to pay a premium for the types of products delivered. Are consumers willing to pay more? This question was investigated by a research project of the “direct/local meat marketing” effort in the College of Agriculture and the results are presented in this paper.

Two surveys were used to evaluate consumer willingness to pay. The first survey was conducted in conjunction with a taste panel held at the University of Kentucky. All participants were UK employees, and most were employees of the College of Agriculture. A second “willingness to pay” survey was conducted at the Kentucky State Fair. This survey yielded a more random sample of consumers, but was not as in depth.

Sixty-one individuals took part in the consumer taste panel at UK. They were asked to complete a four-page survey before moving into the tasting lab. Willingness to pay questions were asked for alternative ground beef, steak, and sausage products.

Participants were told the price of the grocery store product and asked if they would pay a price 40% higher for the same product that was produced and processed in Kentucky. This question was asked separately for all four products. Next, participants were asked the same four questions, but with a 20% price premium. Finally, they were asked which product they would choose if there were no price difference.

When asked about willingness to pay a 40% premium, consumers were least willing to buy ground beef and most willing to purchase sausage. When the price premium was decreased to 20%, ground beef became the product that consumers were most willing to buy, while they were least willing to buy steak. Finally, it was not surprising that almost all consumers chose local products when they were not asked to pay a premium. The results from these twelve questions are summarized below.

Percent of Respondents Who Would Purchase Local Products

% Premium	40%	20%	None
Ground Beef	15.0%	63.9%	100.0%
Steak	20.0%	51.7%	98.3%
Sausage	34.4%	52.5%	100.0%

A similar survey was conducted at the Kentucky State Fair. This survey was intended to reach a larger and more representative group of consumers. At the state fair, questions again focused on willingness to pay for local ground beef, steak, and sausage. Participants were again told the price of grocery store product and asked what they would pay for the same product that was produced and processed in Kentucky. However, price choices ranged from no premium to a 50% premium in 10% intervals.

Results from this survey were quite varied. For low premiums, consumers were most willing to pay for steaks. As premiums grew, consumers were more willing to pay for ground beef and sausage. There was little interest in purchasing locally produced meat produced once the premium exceeded 30%. These results are summarized below.

Percent of Consumers Willing to Pay Various Premiums for Local Meat Products

% Premium	50%	40%	30%	20%	10%	None
Ground Beef	2.6%	2.6%	10.4%	17.4%	27.8%	39.1%
Ribeye Steak	0.9%	2.7%	1.8%	14.2%	37.2%	43.4%
Sausage	1.8%	0%	7.2%	19.8%	26.1%	45%

In this survey, results suggested that older people were more willing to pay for Kentucky products than were younger people. It was also learned that income was not a very important factor in determining the willingness to pay, but was more of a factor for steaks than for ground beef or sausage. It was also not surprising that people who were willing to pay premiums for one product were more willing to pay a premium for another product.

Based on results from these two studies, it is clear that consumers are price sensitive as they consider purchasing local meat products. However, there may be significant groups of consumers who are willing to pay moderate premiums (20%) for Kentucky products. Research is needed on production costs to determine if we can profitably produce within a 20% premium and market research should be conducted to identify specific types of products for which consumers are interested. By targeting our marketing efforts, we can put more dollars into the pockets of our farmers and keep a significant amount of money in the local economy.

The 2002 Farm Bill: Summary of Industry Group Recommendations for Dairy Policy

Sanjeev Kumar, Mary Marchant, and Leigh Maynard

The U.S. dairy industry faces a market environment featuring volatile prices, a widening gap between low-cost and high-cost producers, adversarial regional competition, and increased exposure to global market forces. Lobbying efforts to influence dairy policy in the 2002 Farm Bill are intense, and will impact Kentucky's position within the dairy industry. This paper lists dairy groups' recommendations for the 2002 Farm Bill and describes potential implications. Recommendations were presented at a House subcommittee hearing in May, 2001. The dairy industry is hardly a unified lobby; some of the recommendations are win-lose propositions pitting producers against processors, and producers in one region against those in other regions.

Domestic Policies

The dairy industry wants a more comprehensive dairy policy than prescribed under the 1996 FAIR Act. Most groups favor a national policy devoid of regional distortions. Domestic programs directly affecting the industry include the Dairy Price Support Program, market loss assistance payments, the Dairy Export Incentive Program, the Dairy Promotion and Research Program, and the Northeast Dairy Compact.

The industry is unanimous in support of extending the price support program at \$9.90/cwt. The National Milk Producers Federation lobbied for a safety net comprised of three elements: extend the price support program at \$9.90/cwt. through 2008, maintain the Commodity Credit Corporation (CCC) purchase price for nonfat dry milk at approximately \$1.00 per pound (it was lowered to \$0.90 on May 31, 2001) while leaving the butter-powder tilt unchanged, and establish a supplemental payment program to ensure a price floor of \$11.08/cwt. for Class III and Class IV milk. However, many groups oppose direct payments to producers. Average production costs are lower than \$11.08 in the Pacific region, raising the potential for unbridled supply growth.

Regarding price risk management, the International Dairy Foods Association (IDFA) favors permanent forward contracting for all parties regulated under federal orders. IDFA supports expanding opportunities for producers and processors to manage milk price risks through market tools such as forward contracting and futures markets.

The industry is split on the issue of dairy compacts. The Associated Milk Producers opposes dairy compacts for creating "trade barriers within the country," and helping farmers in some regions at the expense of others. The main objective of compacts is to legislate higher prices for dairy farmers, but the benefit most lobbyists emphasize is compacts' role in stabilizing the marketplace. The American Farm Bureau Federation and Southeast Milk, Inc. argue that compacts reduce price volatility and assure fair prices; processors, retailers and consumers provide the revenue in place of government payments. A recent University of Connecticut study estimated a consumer price impact of only 4.5 cents per gallon, and a recent Government Accounting Office

study found minimal impacts of the Northeast Dairy Compact on farm prices in other regions.

The industry cautiously supports the government's concern regarding environmental protection, but favors easing environmental regulations. The Texas Association of Dairymen and the Dairy Producers of New Mexico argue that compliance with strict regulations has become difficult and often unviable, especially for small operations.

Trade Policies

The industry favors tying access to U.S. markets to the level of partners' trade distorting activities, and argues for quotas and higher tariffs to restrict imports, but advocates maintaining domestic programs irrespective of subsidies and treatment under WTO rules. In particular, the industry wants European Union export subsidies to be addressed in future trade negotiations. Dairy groups recommended funding programs totaling \$283 million to monitor trade compliance and develop export markets.

Milk Protein Concentrate (MPC) imports are a pressing issue. MPC is an almost perfect substitute for nonfat dry milk, and MPC imports have grown over 600 percent in recent years as a way to circumvent GATT Tariff Rate Quota and other trade restrictions on nonfat dry milk. Regulating MPC and casein imports would also reduce CCC purchases.

The industry favors amendments to assess imports at the same checkoff rates as domestic products to supplement farmer-funded promotion programs and deny imports an undue advantage. The industry unanimously favors an extension of the Dairy Export Incentive Program (DEIP) beyond year 2002. The DEIP allows U.S. dairy products to meet competition from subsidizing countries, especially the European Union. Implementation of the GATT trade agreement imposed limits on DEIP bonuses by the United States.

Farm Bill Status After September 11th

The terrorist attacks on September 11th immediately re-ordered the government's priorities. After a temporary delay, the House version of the Farm Bill may be debated in early October. Farm groups support rapid passage of a bill, fearing that delay will result in lower benefits to farmers. Not only is the Senate version of the bill likely to be less generous than the House version, the Bush administration appears reluctant to emphasize farm spending at this time. Sen. Lugar, the ranking member of the Senate Ag. Committee, appears especially unwilling to consider a Farm Bill that does not address public (as opposed to just farmer) interests, and wants to delay debate until the administration provides more details on funds available for agriculture.

As of late September, strong support remains for extending the current price support structure, but its impact on the budget and WTO limitations will leave little room for additional dairy spending. The Northeast Dairy Compact will likely expire on September 30th. While proponents will continue the fight for re-authorization, the nation's new priorities and the prospect of recession may limit compacts' appeal to lawmakers.

Year 2000 Enterprise Analysis Data for Selected Crops

Kentucky Farm Business Management Program

Craig D. Gibson

It is apparent from these data that governmental program payments continue to be very important. Even with consideration given to Loan Deficiency Payments (LDPs), data averages suggest other program payments (i.e., production flexibility payments, market loss assistance payments, and oilseed payments) are necessary for producers to realize positive returns when measured by management returns.

Yields were generally higher for producers in 2000. Except yellow corn, every other crop achieved yields that were higher than respective five-year averages. Single crop and double crop soybeans showed the largest improvements over the five-year averages. However, each had 1999 yields substantially below normal.

Table 1 provides a snapshot of five major crops grown by Kentucky grain producers. Detailed information for these five crops and a few others are provided at the end of this paper. Short term decisions are often based upon expected returns over variable costs. White corn showed the greatest returns over variable costs (i.e., \$198.83), followed by wheat/double crop soybeans (i.e., $\$81.93 + 92.36 = \174.29), yellow corn (i.e., \$165.18), and single crop soybeans (i.e., \$155.91). The realized advantage in white corn during year 2000 most likely stems from two considerations. One consideration is that markets often offer white corn prices at a “premium” to yellow corn prices. Thus, if white corn yields are comparable to yellow corn, a larger gross return is likely. Secondly, white corn is often grown under a production contract. Contract producers seemingly feel more comfortable aggressively establishing a forward price “earlier” in the growing season. Under traditional and recent price cycles, “early” sellers have realized higher average selling prices. Higher selling prices result in larger gross incomes, all other variables constant.

In contrast to 1999, the wheat/double crop soybean returns over variable costs leaped ahead of yellow corn and soybeans. The major reason was much improved yields realized in both crops. Wheat yields were 2.4 bushels per acre better than the five-year average (64 vs. 61.6). Double crop soybeans were 3.7 bushels per acre better than the five-year average (30 vs. 26.3). Using per bushel returns of \$2.89 and \$6.05 for wheat and double crop soybeans, respectively, the improved yields contributed \$29.32 per acre to gross returns.

Rankings of the selected cropping activities change when evaluating the cropping activities based on returns over Nonland Costs. Producers should use returns over Nonland Costs when evaluating cropping activities over a period that is longer than one or two years. Table 1 shows that white corn had the greatest returns over nonland costs. Single crop soybeans was next. Yellow corn was third. Wheat/double crop soybeans were last. Other nonland costs include overhead costs such as depreciation, labor, insurance, interest, and other types of overhead costs. Although some of these expenses are not “cash” expenses annually (i.e., depreciation, unpaid labor, interest on equity capital, etc.), they do become a future cash expenditure. Note: Some budgets use family living expenditures in place of unpaid labor

expenses when calculating costs.

Land costs varied by crop. Land costs are not constant across the various activities as they are influenced by the mix of owned land, cash rented land, and crop shared land. Land costs were calculated by charging 4.5% of the land value for owned land (i.e., \$96.05), the average cash rent paid for cash rented land (i.e., \$83.33), and a “leasing cost” for the crop shared land based upon costs incurred by the tenant, for which no revenue is realized.

Kentucky grain farms with no livestock enterprises showed positive management returns of \$42.60 per operator acre for year 2000. However, Table 1 shows no cropping activity with positive management returns. Government subsidy payments in the form of production flexibility payments, market loss assistance payments, oilseed payments, and tobacco payments were not reflected in Table 1, but contributed a substantial amount toward generating positive management returns for the overall business. There were also other types of unallocated incomes that contributed toward making management returns positive (i.e., custom work, miscellaneous income, etc.). They varied immensely on an individual farm basis. Still, the serious question, given the results from individual cropping activities, is: “Where are we headed in the future . . . without government program payments?” These data suggest something will have to change!

Table 1. A Snapshot of Costs and Returns of Selected Crops.

Crops	Yellow Corn	White Corn	Single Crop Soybeans	Wheat	Double Crop Soybeans
Yields	123	115	44	64	30
Production Returns	\$273.00	\$310.00	\$219.00	\$157.00	\$153.00
LDPs	47.36	44.28	41.80	28.16	28.50
Total Returns	\$320.36	\$354.28	\$260.80	\$185.16	\$181.50
Non land Costs					
Variable Costs	\$155.19	\$155.44	\$104.89	\$103.23	\$89.14
Returns Over Variable Costs	\$165.16	\$198.83	\$155.91	\$81.93	\$92.36
Other Non land Cost	112.38	110.23	91.50	86.78	76.91
Returns Over Non land Costs	\$52.79	\$88.60	\$64.41	(\$4.84)	\$15.45
Land Costs	92.65	90.55	82.91	43.93	42.86
Total - All Costs	\$360.21	\$356.22	\$279.30	\$233.93	\$208.91
Management Returns	(\$39.86)	(\$1.95)	(\$18.50)	(\$48.77)	(\$27.41)

Table 2. A Detailed Look at Selected Kentucky Cropping Enterprises.

Crops	Yellow	White	Single Crop	Double Crop		Grain		
	<u>Corn</u>	<u>Corn</u>	<u>Soybeans</u>	<u>Wheat</u>	<u>Soybeans</u>	<u>Barley</u>	<u>Sorghum</u>	<u>Popcorn</u>
Percentage of Land Use	47.2%	2.1%	22.0%	22.4%	23.7%	1.50%	0.3%	1.3%
GROSS RETURNS (Per Acre)								
Production Returns	\$273.00	\$310.00	\$219.00	\$157.00	\$153.00	\$130.00	\$166.00	\$346.00
Loan Deficiency Payments	<u>47.36</u>	<u>44.28</u>	<u>41.80</u>	<u>28.16</u>	<u>28.50</u>	<u>6.40</u>	<u>20.46</u>	<u>0.00</u>
TOTAL RETURNS	\$320.36	\$354.28	\$260.80	\$185.16	\$181.50	\$136.40	\$186.46	\$346.00
(Per Unit)	2.60	3.08	5.93	2.89	6.05	1.53	2.00	0.09
NONLAND COSTS (Per Acre)								
Variable Costs								
Fertilizer	\$53.22	\$52.53	\$19.98	\$35.36	\$12.65	\$29.71	\$41.77	\$49.22
Pesticides	33.18	33.53	30.49	19.12	32.25	18.16	25.40	31.29
Seed	29.18	29.67	21.56	17.27	17.39	9.19	8.89	34.76
Drying	2.83	2.59	1.08	0.72	0.90	0.73	1.82	0.59
Machinery Repair	18.69	19.41	15.37	15.73	12.61	16.27	16.79	15.14
Fuel & Oil	9.58	9.32	8.64	8.97	7.03	9.57	8.47	9.08
Machine Hire	<u>8.52</u>	<u>8.39</u>	<u>7.76</u>	<u>6.05</u>	<u>6.30</u>	<u>5.91</u>	<u>7.22</u>	<u>8.43</u>
Total Variable	\$155.19	\$155.44	\$104.89	\$103.23	\$89.14	\$89.54	\$110.36	\$148.50
Other Nonland Costs								
Utilities	\$3.93	\$4.00	\$3.13	\$2.84	\$2.57	\$2.99	\$2.47	\$3.19
Labor - Paid	10.82	12.68	11.67	7.41	7.06	6.39	10.74	9.92
- Unpaid	15.94	14.56	15.14	11.09	10.86	10.84	15.98	16.71
Storage	1.26	0.98	0.18	0.20	0.19	0.21	0.14	0.17
Building Repairs	3.41	3.00	3.00	1.83	1.66	1.91	2.70	2.62
Building Depreciation	4.66	4.02	2.74	3.50	3.42	3.89	4.15	2.62
Light Vehicle Expense	0.24	0.21	0.19	0.13	0.13	0.15	0.13	0.18
Machinery Depreciation	21.00	20.79	17.45	21.80	16.20	23.08	16.03	19.29
Insurance	11.12	10.15	8.74	8.42	8.84	8.88	11.71	8.66
Miscellaneous	3.85	3.78	4.16	3.76	2.77	3.84	7.81	7.74
Nonland Interest	<u>36.15</u>	<u>36.07</u>	<u>25.09</u>	<u>25.80</u>	<u>23.21</u>	<u>26.98</u>	<u>31.90</u>	<u>35.38</u>
Total Other	\$112.38	\$110.23	\$91.50	\$86.78	\$76.91	\$89.18	\$103.75	\$106.47
Total Nonland Costs	\$267.57	\$265.67	\$196.39	\$190.00	\$166.05	\$178.72	\$214.11	\$254.97
LAND COSTS (Per Acre)								
Taxes	\$5.40	\$5.97	\$6.15	\$2.40	\$2.38	\$2.26	\$5.64	\$5.69
Adjusted Net Rent	<u>87.25</u>	<u>84.59</u>	<u>76.76</u>	<u>41.53</u>	<u>40.47</u>	<u>42.02</u>	<u>78.20</u>	<u>86.62</u>
Total Land Costs	\$92.65	\$90.55	\$82.91	\$43.93	\$42.86	\$44.28	\$83.84	\$92.31
TOTAL - ALL COSTS	\$360.21	\$356.22	\$279.30	\$233.93	\$208.91	\$223.00	\$297.96	\$347.28
MANAGEMENT RETURNS	(\$39.86)	(\$1.95)	(\$18.50)	(\$48.77)	(\$27.41)	(\$86.60)	(\$111.50)	(\$1.28)
Yield per Acre	123	115	44	64	30	89	93	3,785
Nonland Costs per Bushel	\$2.18	\$2.31	\$4.46	\$2.97	\$5.54	\$2.01	\$2.30	\$0.07
All Costs per Bushel	2.93	3.10	6.35	3.66	6.96	2.51	3.20	0.09
Average 5-Year Yield	125.5	111.5	35.4	61.6	26.3	83.3	84.8	3175.4
All Costs per Bushel	\$2.87	\$3.20	\$7.88	\$3.80	\$7.93	\$2.68	\$3.51	\$0.11

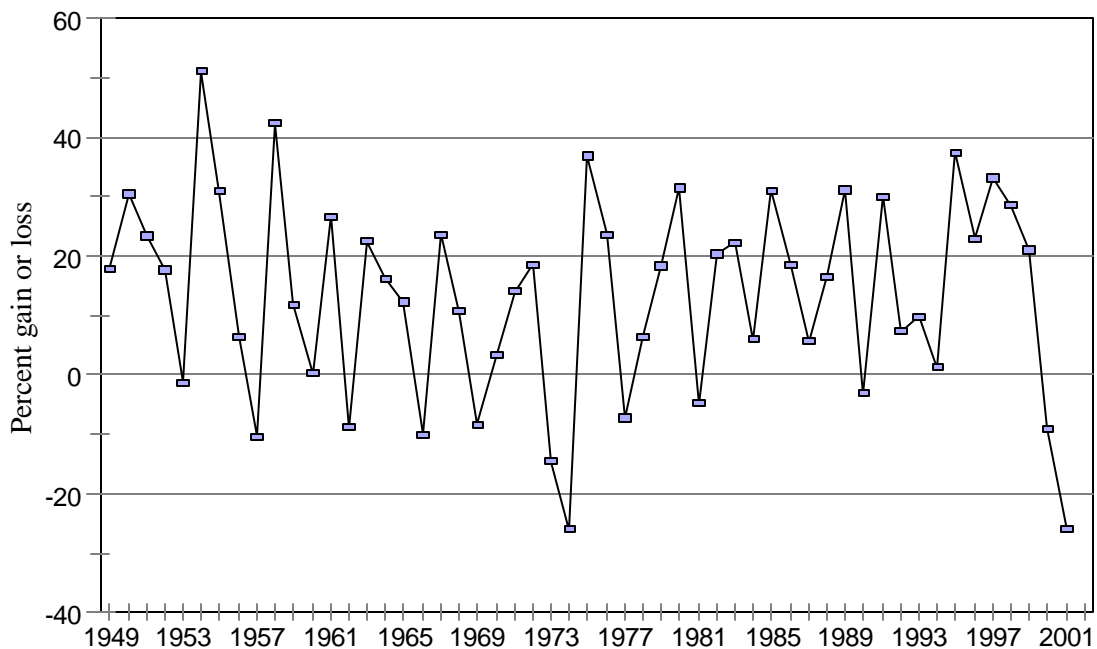
Recession, Terrorism, the S&P 500 and the Yield Curve

David L. Debertain

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.

However, the S&P 500 has been notoriously volatile over the past 50 years and longer as shown in this chart of returns for each year from 1949 to now.

Returns to the S&P 500, 1949-2001



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 about 12.3 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 into 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.

A Synopsis of Cow-Calf Operations in the Green River Area for Year 2000

Craig D. Gibson

With efforts placed on enhancing profitability in beef cow-calf operations, it seems that it warrants a review of the current situation. Measurements in production performance and economic variables among individual producers appear to show a large degree of variability. This variability suggests that all producers must look more closely at the production levels achieved (i.e., beef produced) and the associated cost structure of their beef operation.

Data was collected from 21 cow-calf beef operations in Henderson, Union, and Webster counties. We then divided the data into two groups. We defined one group as operations that sold calves at or shortly after weaning - calves sold. The second group was defined as operations that sold calves after weaning and after producers fed the calves under a backgrounding program - calves background. Table 1 summarizes the economic results.

Table 1 results are most likely very disappointing to the extent that neither group showed positive management returns. However, with "Other Costs" reaching more than \$45 per cwt. of beef produced, it is very difficult to expect positive returns. This raises an interesting question: "Do cow-calf operations expect to cover all costs, including unpaid labor and opportunity cost on investment (i.e., cash & non cash interest)?" Returns to unpaid labor and capital were \$18.88 and \$13.67 per cwt. for the calves sold and calves background groups, respectively. Are these sufficient returns? The answer depends upon indebtedness and family living requirements in relationship to the economic performance of the cow herd. Most of the farms used in this study rely upon other economic activities as the predominant source of earnings. Therefore, many operations are not as concerned with negative management returns. In addition, short term production activity decisions are based on covering variable costs (including feed costs). These returns measured \$33.78 and \$23.56 per cwt. for the calves sold and calves background groups, respectively. Obviously, the producer (management) provides answers the proposed questions.

One measure of the long term economic viability of cow-calf beef operations is management returns. With the average of each grouping showing negative returns, we must examine what steps producers may take to enhance returns. (Note: Of the 21 operations, the top one-third of the operations averaged management returns of \$-1.36 per cwt. of beef produced. The top five beef producers averaged management returns of \$1.48 per cwt.)

In general terms, the more highly profitable operations showed the following common characteristics for both groups:

- ! Lower non-feed costs . . . especially non-cash costs
- ! Lower death loss . . . especially breeding stock
- ! Lower Investment per Cow
- ! Higher returns per \$100 feed fed
- ! Less Hay Equivalents per Cow

Dependent upon whether the grouping was calves sold or calves background, additional variables also influenced management returns as follows:

Calves Sold

Higher Price Received
Higher Breeding Stock Survival
Higher Market Stock Survival
Fewer Pasture Days

Calves Background

Lower Feed Cost per Cwt.
Higher Calving Percentage
Lower Cash Costs
Greater Beef Produced per Cow

Due to space constraints, a description detailing the impact of these variables is not provided. In addition, due to limited observations and large variations found in these data, poor performances found within certain individual operations may skew these data results.

Table 2 provides additional economic and production variables. Herd size had little impact on profitability as measured by management returns. In contrast to the history of the operations, pounds of beef produced per cow is lower in 2000 than in 1999, and feed costs per cwt. produced is higher, as well as variable costs and other costs. Although the average selling price of market stock was higher in year 2000, average gross returns were lower due to higher death loss and accrual adjustments for changes in beginning and ending inventory values.

Clearly, the average of the calves sold group were more profitable than the calves background group in year 2000. If backgrounding calves is a profitable activity, this should not have been the case. However, the data presented are simply averages of producers. There were individual calves background operations as profitable than the average of the calves sold grouping. This suggests that individual producers must evaluate their own herd's performance concerning both production and economic influences as each relates to resources available and management capability.

We have never relied upon one year's performance to find truly outstanding overall performance. Data trends are more reliable for this purpose. Although annual or periodic review of performance is necessary in determining progress toward achieving efficient production and/or profitability, reliability of data is not exact and is insufficient to judge continued successful performance based upon one year's data.

Efforts placed on enhancing profitability in beef cow-calf operations will not succeed without records and/or record analysis on a continual basis. If management returns are the measurement tool, year 2000 data suggests we need much improvement. Certain individuals realized success in 2000. Others did not. Each beef producer needs to determine what the current situation is so as to determine what is needed for a successful future.

Table 1. Cost and Returns of Beef Cow-Calf Operations for 2000.

	<u>Calves Sold</u>		<u>Calves Background</u>	
	<u>Per Cow</u>	<u>Per Cwt.</u>	<u>Per Cow</u>	<u>Per Cwt.</u>
Number of Operations		10		11
GROSS RETURNS	\$430.59	\$79.62	\$438.98	\$72.83
Less Feed Costs:				
Home-grown Feed	\$160.31	\$29.75	\$193.78	\$33.27
Purchased Hay & Other	7.66	1.31	16.94	2.56
Purchased Concentrates	<u>28.27</u>	<u>4.95</u>	<u>25.75</u>	<u>4.15</u>
Total Feed Costs	\$196.23	\$36.01	\$236.47	\$39.98
Returns Over Feed Costs	\$234.36	\$43.61	\$202.51	\$32.85
Variable Costs				
Livestock Supplies	\$9.12	\$1.67	\$7.19	\$1.10
Veterinary Expenses	11.28	1.92	18.64	2.91
Machinery Repair	18.11	3.34	20.35	3.34
Fuel & Oil	15.10	2.81	11.28	1.90
Machine Hire	<u>0.59</u>	<u>0.11</u>	<u>0.30</u>	<u>0.05</u>
Total Variable Costs	\$54.20	\$9.84	\$57.77	\$9.29
Returns Over Feed & Variable Costs	\$180.16	\$33.78	\$144.74	\$23.56
Other Costs				
Utilities	\$5.76	\$1.04	\$3.05	\$0.47
Labor - Paid	25.86	4.51	17.44	2.85
- Unpaid	55.92	10.60	76.20	13.26
Building Repairs	9.67	1.89	9.04	1.53
Building Depreciation	8.78	1.68	4.64	0.83
Light Vehicle Expense	1.46	0.29	3.26	0.52
Machinery Depreciation	16.26	2.92	10.32	1.68
Insurance, Prop Taxes, Misc.	13.79	2.57	11.92	2.00
Cash & Non Cash Interest	<u>108.25</u>	<u>20.53</u>	<u>120.05</u>	<u>20.50</u>
Total Other Costs	\$245.75	\$46.02	\$255.92	\$43.65
TOTAL - ALL COSTS	\$496.18	\$91.87	\$550.16	\$92.92
MANAGEMENT RETURNS	(\$65.59)	(\$12.25)	(\$111.18)	(\$20.09)

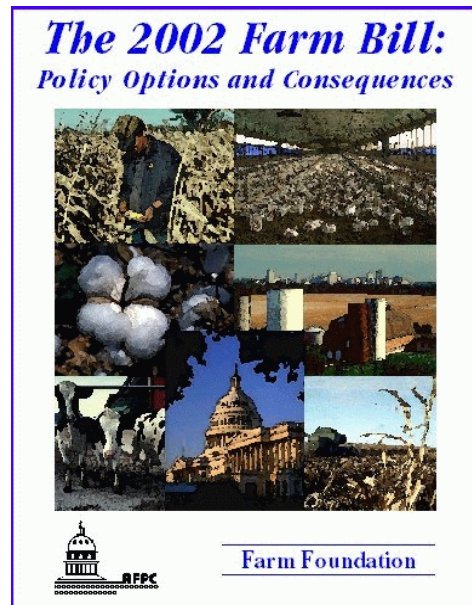
Table 2. Other Economic and Production Variables for Beef Cow-Calf Operations in 2000.

	Calves Sold	Calves Background
Other Economic Variables		
Returns per \$100 Feed Fed	\$224.49	\$191.12
Price Received Per Cwt. (Market)	86.24	82.62
Price Received Per Cwt. (Breeding)	41.63	42.74
Cost Structure as a % of Gross Income		
Feed	45.2%	54.9%
Variable Costs	12.4%	12.8%
Other Costs	57.8%	59.9%
Capital Investment per Cow		
Livestock	\$810	\$1,013
Non-Livestock	<u>455</u>	<u>365</u>
Total Investment	\$1,266	\$1,378
Rate Earned on Investment	3.37%	0.64%
Other Production Variables		
Average Number of Cows	78.0	64.7
Pounds of Beef Produced per Cow	556.3	604.3
Reproduction:		
Number of Calves Born	80.5	63.0
Percent Calving	103.2%	97.7%
Number of Breeding Stock Sold	7.7	6.4
Percent Cull Rate	9.87%	11.61%
Death Loss:		
Number of Market Stock Deaths	3.2	4.4
Market Survival Rate	92.3%	92.1%
Number of Breeding Stock Deaths	2.0	1.4
Breeding Survival Rate	97.97%	98.49%
Total Death Loss-% of Production	4.8%	4.8%
Feed Fed per Cwt. of Production		
Total Concentrates	83.4	126.8
Hay & Dry Forage	585.8	832.1
Corn Silage	330.1	180.3
Pasture Days per Animal Unit	225.5	204.3
Hay Equivalent per Cow	5.5	5.9
Labor Summary		
Months per Cow	0.042	0.047
Hours per Cow	8.68	9.78
Beef Production per Worker per Year	162,306	161,300

A 2002 Farm Bill Information Source

Daniel Green and Will Snell

The Farm Foundation and the USDA have provided *The 2002 Farm Bill: Policy Options and Consequences*, a collection of papers discussing issues related to the 2002 Farm Bill. This publication includes a discussion of the important programs and policies being considered for the 2002 Farm Bill as well as potential consequences of various policy options. Printed copies of the publication are available from Farm Foundation and the full report is available electronically from their website.



The 2002 Farm Bill: Policy Options and Consequences

Edited by Joe L. Outlaw and Edward G. Smith
Publication No. 2001-01
Oak Brook, IL: Farm Foundation,
September 2001

Available online at:

<http://www.farmfoundation.org/projects/01-33.htm>

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Kentucky Center for Cooperative Development Update

Lionel Williamson

The Kentucky Center for Cooperative Development (KCCD) is a partnership including the University of Kentucky College of Agriculture, Kentucky Department of Agriculture, Commodity Growers Cooperative, Center for Sustainable Systems, Burley Tobacco Cooperative, and the USDA Rural Development. This partnership provides development and maintenance support to cooperatives in the state of Kentucky through outreach and education. The Center is currently funded by an USDA Rural Cooperative Business Grant.

KCCD Mission:

The Kentucky Center for Cooperative Development will provide educational, technical, and financial resources for groups and organizations seeking to enhance opportunities through cooperatives.

Current Funding and Activities

The Kentucky Center for Cooperative Development is currently funded through two USDA Rural Cooperative Business Grants. The first grant, in the amount of \$193,000, was awarded in October 1999 and ended on September 30, 2001. The second grant, which became effective in October 2000, will continue until September 2002. The award for the second grant is \$190,000. In addition to USDA grants, the Center has also received funding from the Kentucky Agricultural Development Board. The amount awarded is slightly over \$200,000 annually.

Through the grant program and funds from the Agricultural Development Board, KCCD is able to conduct the following activities:

- Coordinate cooperative development efforts
- Provide technical support in cooperative development with information on capitalization, financing, legal and accounting issues
- Assemble educational materials from other Cooperative Development Centers
- Conduct board member and management training sessions
- Assist in writing cooperative articles of incorporation and bylaws
- Develop resources and education on cooperative issues and trends

The grant program also employs one full-time coordinator to communicate with KCCD partnership, state cooperatives, and national leaders in cooperative development. Due to the drastic increase in cooperatives over the last year, KCCD is working feverishly to provide the quality support and education to each and every cooperative.

Feasibility study money is also a concern for KCCD. Due to the increase in farmer groups interested in forming cooperatives, traditional assistance available for conducting feasibility studies is diminishing, leaving some groups without needed feasibility studies and business plans. Such funds are now available,

on a matching basis, through the Kentucky Center for Agricultural Development and Entrepreneurship.

Many cooperatives need legal and accounting assistance. New cooperatives need to understand cooperative laws in regards to business structure, marketing contracts, insurance, dividends, and legal responsibilities of the board and manager. Additionally, cooperatives need to comprehensively understand tax laws, accounting issues, and cash flow. KCCD does not have expertise in the legal and accounting arenas. There are funds now available to retain such assistance as a part of the funding provided to the Center by the State Board.

KCCD is also in need to develop educational materials specific for Kentucky agriculture. Constructing viable educational materials takes many hours of time and resources. KCCD currently uses photocopied material from other Cooperative Centers and the USDA.

Additional regional and statewide board of directors and manager training need to be conducted. KCCD held one "Cooperative Winter School" training in January 2000, and is planning two training sessions in 2001 for all cooperatives interested in attending. More training is needed, particularly one-on-one training with experts in communication, finance, marketing, policy making, and strategic planning.

Long-term objectives

KCCD provides leadership for cooperative development efforts in Kentucky. The Center will continue to assist producers and others to capture profits through cooperative development. KCCD will serve as a resource to groups interested in forming cooperatives. KCCD will provide assistance in development of feasibility studies and business plans. KCCD also plans to provide training to cooperative managers, members, and board of directors. The Center will develop and maintain a resource center for cooperative educational material. KCCD will provide training to agency personnel in cooperative development. KCCD is now a nonprofit entity and is forming a broad base Board of Directors.

KCCD, through its Board of Directors, will implement the long-term objectives through the following processes:

- Hire Center Director to provide leadership to cooperative activities in Kentucky
- Provide comprehensive cooperative assistance through regional field staff
- Increase training for partnering agency staff, cooperative board members and managers
- Increase education opportunities for producer groups
- Provide long-term state and national policy development for cooperatives

Center's Human Resource Needs

Center Director: The Center Director will oversee the Cooperative Center programs. The Director will communicate with the Advisory Board, Agricultural Development Board, and educational/technical agencies regarding continuing Center programs. The director is responsible for reporting impacts, project updates and evaluation, and fiscal management. The Director will also work with the Agricultural

Development Board COO and staff to evaluate state Phase I cooperative projects and make recommendations to the ADB regarding funding.

West Kentucky Field Staff: Coordinates cooperative educational and technical support activities sponsored by the Center. Works with support agencies (USDA Rural Development, Kentucky Department of Agriculture, regional Universities) in the development and delivery of statewide and regional programming. Works with the Center director to link education programs and technical feasibility support from the Center. Reports to the Center Director.

East Kentucky Field Staff: Coordinates cooperative educational and technical supports activities sponsored by the Center. Works with support agencies (USDA Rural Development, Kentucky Department of Agriculture, regional Universities) in the development and delivery of statewide and regional programming. Works with the Center director to link education programs and technical feasibility support from the Center. Reports to the Center Director.

Administrative Assistant: Support staff person for the Center Director. Will also be used by regional field staff. Assists in coordinating meetings, coordinating training sessions, organizing training materials, facilitate general Center communications, help the director prepare periodic Center project reports, and help manage communication with Center clients and regional field staff. Gathers impact data from Center projects.

Service contracts and retainer: The educational activities sponsored by the Center will be done through service contracts with several educational institutions. Projects requiring accounting and legal assistance will be able to access a limited amount of consulting via retainer through the Center. Projects completed through the grant program that involve legal and/or technical aspects may require retaining special expertise to ensure the quality of project deliverables.

Steps involved in the cooperative development process:

1. KY Department of Agriculture Marketing Specialists, University of Kentucky Extension Specialists or the Cooperative Extension Service personnel throughout the Commonwealth receive Farmer requests for assistance in cooperative development or co-op management. KDA or UK personnel contact the KCCD director and ask for assistance. UK or KDA organizes an informational meeting for those requesting assistance.
2. KCCD responds to the request by sending a staff person to attend and speak at an informational meeting of producers. Group's ideas are explored at the meeting. If group's ideas remain in the form of a cooperative effort, KCCD will suggest they form a steering committee to further explore the possibilities.
3. KCCD assigns a staff person to work with the steering committee and formalize the investigative process into a feasibility study.
4. KCCD assists the steering committee to identify sources of assistance to conducting the study, identify qualified research firms, write a request for proposal document and apply for cost-share funds from the KCADE.

5. Interested producers and KCADE provide funds for a feasibility study.
6. KCCD staff person helps guide the steering committee through the feasibility study process. KCCD and the Steering Committee report regularly to funders and KCADE as to the progress of the study.
7. If feasibility is determined and the interested producers vote to pursue the identified opportunity, KCCD will provide educational assistance in the formation of Cooperative Articles of Incorporation, Bylaws, stock or non-stock and other structural issues. KCCD will also provide member and management education as needed. The co-op is incorporated at this time.
8. KCCD assigned staff member assists the group with the coordination of the business planning process. KCCD partnering agencies (KCADE, UK, KDA, and SBDC) will be surveyed for available assistance with the development of a business plan. Professional consultants may be needed as well. KCCD staff member will help steer the co-op interim board through the business planning process but will not develop or write the business plan for the co-op board. KCADE may be asked for financial assistance to help with the business planning expense if outside firms are required.
9. With the business plan complete the new co-op raises capital and begins operation once the financing is in place.
10. KCCD will provide ongoing educational, legal and accounting assistance to cooperatives by conducting workshops, winter schools and board/member training on an individual or group basis as needed and resources allow.
11. The KCCD Director will regularly submit articles to KY Agriculture publications to keep the public informed of cooperative development efforts and issues. KCCD will hold Board meetings on a regular basis to keep KCADE and other partnering agencies and organizations informed and involved agricultural cooperative development.

Issues and Challenges Facing Kentucky Businesses: Implications for Rural Communities

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Small businesses in Kentucky are facing numerous challenges as they try to develop their business and compete in a changing marketplace. Some scholars argue that a reshaping or restructuring of employment patterns is taking place. These patterns include short-term or seasonal, part-time, or multi-job income sources. Women's increased labor force participation, the professionalization of social relations, and lifestyle or quality of life issues that emphasize individualism, self-employment, and entrepreneurship are factors (Fuller & Bollman, 1992). Multi-job or pluriactivity is not uncommon in rural and agricultural communities. Many individuals have more than one structured business or more than one income generating stream within their business. Farm communities, such as the Amish and Mennonite communities have long engaged in patterns of work that included farm work and non-farm activities to generate income.

The trend toward pluriactivity may have ramifications for rural communities in particular, especially in light of change in rural economies and the restructuring of agriculture. Many businesses cite the use of technology and computers as a way to transcend geographic boundaries to target markets for their products and services. In fact, most businesses can not survive on local trade alone. Technological advances are making markets more open and competitive in rural areas. Some experts suggest the 'new economy' as described recently at a Kentucky League Cities conference, "The Morphing of Mainstreet", will need technological infrastructure and trained workers. Rural communities, on the other hand, offer many of the qualities such as quality of life issues, neighborliness, and lower cost of living that attract 'new economy' small businesses. This has important implications for Kentucky business owners since parts of Kentucky are experiencing "digital divide" (Smith-Mello, Childress, Watts & Watkins, 2000). This lack of access to information technology compounds economic problems already evident in these regions.

Two studies conducted by the Gatton College of Business and TVA Rural Studies at the University of Kentucky examined male and female-owned businesses (Allen, Berger, & Thompson, 1999, King, 2000). One study was a mailed survey that compared the demographic profile and experiences of male and female-owned businesses. The second study explored female owned businesses issues more in-depth through ten focus groups conducted throughout Kentucky. Business owners represented seven business sectors from agriculture to retail to manufacturing. Here are some highlights of the studies:

Most businesses were relatively small in terms of their number of employees. Both male and female owned business have very similar characteristics. Most businesses wanted to grow. Four major challenges were identified that were common to both male and female owned businesses. These were: Obtaining financing and access to capital; finding and keeping a skilled labor force; keeping up-to-date with technological changes and staying competitive in a changing marketplace.

Summary and Implications

Small businesses from agriculture to main street retailers are making important social and economic contributions to Kentucky communities. In spite of the challenges, nearly all of the business owners are optimistic about the opportunities. Technological advances are making markets more open and competitive

and are helping small businesses be more savvy in their day to day operations. Policy implications include addressing access to capital, creating technological infrastructure for rural communities, reducing governmental regulations, providing affordable health insurance, and addressing labor issues. Consolidation is occurring across all sectors of businesses from agriculture to funeral home businesses. The trend of consolidation has important ramifications for rural communities and small businesses. Business owners suggested that more needed to be done educationally to encourage the development of skills needed for starting a business. Banking and lending institutions may need to consider new products and promotional strategies to reach small business owners.

Extension outreach and research can play an important role in community and economic development. If strategically planned, networks and partnerships among and between institutions can be fostered. For example, as the focus groups were planned, key business institutional representatives were invited to participate, such as the Kentucky Small Business Development Center staff, Chamber of Commerce directors, and downtown development directors. New connections and perspectives on ways of doing business and networking were created between businesses, business support institutions, and the Cooperative Extension Service. Cooperative Extension Service programs in home-based business development, cooperative and value-added enterprise development can play an important role in small business development. Home based businesses are important entrees for women into small business.

More research needs to be conducted on small businesses, particularly the urban-rural interface influence on rural economic development. Many rural businesses are couple-owned, second career, or post retirement ventures, or multi-generationally owned businesses. Insights on small business and entrepreneurial activities in the changing rural economic landscape will be useful for extension workers, researchers, and policy makers.

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