1992 AGRICULTURE OUTLOOK & POLICY ISSUES

Agricultural Economics Department

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1992
AGRICULTURE
OUTLOOK
&
POLICY ISSUES

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Department
Coordinated by
Lynn H. Lutgen
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Introduction

The UNL Department of Agricultural Economics has many friends and supporters who are particularly interested in Nebraska’s agricultural economy and rural society. Often, their interest is in the future, not the past. The Department’s Outlook Program, which includes this publication, is intended to help address this need by highlighting some of the likely happenings in 1992 and beyond.

Not all issues of future importance are covered in this publication, nor do we guarantee our “predictions” to come true! Predicting the future is risky business — especially in today’s ever-changing political, social, and economic climate. However, we do hope this publication will stimulate original thought and discussion, and will generate additional crystal balls by the readership.

Today’s agriculturalist and rural citizen must be concerned about a much broader complex of issues than in the past. Similarly, if the Department of Agricultural Economics is to remain relevant, it must have the capability to address a broader array of issues. We believe this publication is evidence of such a capability.

This is the first attempt by the Department to systematically organize and develop an Outlook Program. The person who has provided overall leadership for this inaugural effort is Dr. Lynn Lutgen and his strong commitment and hard work have been especially important. As Dr. Lutgen and I reflect on this experimental program and its future, we need to be guided by your feedback. Please share your thoughts, comments, and suggestions with us. Thank you for your interest.

Sam Cordes, Department Head
Outlook for the General Economy

A. L. (Roy) Frederick

The general economy has sputtered along without clear direction for most of the past 18 months. While officially in a recession in late 1990 and early 1991, the economy has made an uneven and unconvincing attempt at recovery in recent months.

Cautious consumers are precluding a fast return to economic growth. It shows up in generally weak retail sales, especially for big-ticket items, such as automobiles. Housing starts, at a current pace of one million per year, also have sagged from an annual level near 1.6 million during the first half of 1990.

The general economy is important to agriculture for several reasons. On the negative side, while consumers must eat regardless of the economy, high-valued food products may encounter more consumer resistance during stagnant economic periods. But on the positive side, a less-than-vibrant economy often tempers inflation and interest rates. On balance, an occasional modest recession in the general economy probably is more helpful than harmful to agricultural producers.

Both short- and long-term interest rates have been at their lowest levels in a decade during the second half of 1991. The Federal Reserve Board, which controls the nation’s money supply, may take additional action to reduce interest rates in early 1992 if the economy remains weak. (The holiday shopping season will be a good test for the economy.) Subtle or not-so-subtle political pressures may enter into the picture as well, given that 1992 is an election year.

At some point, consumers will perceive low interest rates as a bargain too good to pass by and begin making purchases of big-ticket items once again. The economy will then begin to grow, and the Fed, ever fearful of inflation, will not wait long to dampen growth of the money supply. The bottom line is that interest rates (both short- and long-term) are likely to be about one percentage point higher in the last quarter of 1992 than for the same period in 1991.

If the Fed successfully negotiates the interest-rate high wire, inflation should be modest throughout 1992. Average inflation for the year should be no higher than four percent, and it may turn out to be closer to three percent.

Interest rates and inflation also are important on the international front because they are key factors in determining the dollar’s value relative to other currencies. Other things equal, the higher inflation-adjusted interest rates are, the higher the exchange value of the dollar. And from the standpoint of trade, a high value for the dollar encourages imports but discourages exports.

Overall, the dollar’s exchange value increased about 10 percent during the first half of 1991, but lost about half of the earlier gain after July 1. Some further softening is expected during the first half of 1992, a good tonic for U.S. agricultural exports.
Free Trade With Mexico: A Plus for Nebraska Agriculture?

E. Wesley F. Peterson and Nancy H. Cottrell

In June 1991, officials from the United States, Canada, and Mexico undertook negotiations to create a North American Free Trade Agreement (NAFTA). The United States and Canada have had a free trade agreement since 1989 — so the current negotiations focus primarily on the liberalization of Mexican trade with the United States and Canada. When countries establish a free trade area, they agree to eliminate as many of the impediments to the free exchange of goods and services as is politically feasible. These impediments include tariffs (a tax on imported goods) and quantitative restrictions on imports, as well as barriers related to different technical standards such as environmental or phytosanitary laws. The creation of NAFTA would mean reducing or eliminating a wide range of trade barriers currently used in the three countries to protect producers or consumers. This would alter market prices leading to adjustments in production, consumption and trade.

Agriculture provides an excellent illustration of the possible effects of establishing a NAFTA. Mexico has historically protected grain producers by providing high guaranteed prices and limiting the amounts that could be imported. A state enterprise, known as CONASUPO, has been responsible for supporting prices and handling most of the grain imports. The creation of NAFTA means that the policy mechanisms used by CONASUPO to maintain high producer prices would be eliminated. This could lead to much lower prices for such commodities as corn, wheat, and sorghum. The lower prices would encourage consumption and act as a disincentive to Mexican producers, leading to large increases in grain imports — most of which would come from the United States.

Preliminary results from a current research project at the University of Nebraska-Lincoln indicate that Mexican grain imports may be from 35 percent to 70 percent greater with a NAFTA than without. Such an increase in grain sales to Mexico benefits Nebraska, a major producer of corn, wheat, and sorghum. While total grain sales to Mexico will almost certainly increase, the future for particular kinds of grain depends on more than the price changes that would follow the creation of NAFTA. For example, corn is used primarily for human consumption in Mexico and there are laws restricting its use as a livestock feed in most parts of the country. These restrictions have led to rapid growth in Mexican imports of sorghum for use in livestock rations. Mexico currently buys about 27 percent of all U.S. sorghum exports. If the ban on feeding corn is lifted, it is possible that sorghum imports will actually decline as livestock feeders switch to corn. Of course, such changes also mean substantial increases in U.S. corn exports to Mexico.

Overall, the creation of a NAFTA would appear to be of great benefit to Nebraska grain producers although the specific effects may vary by commodity.

The situation is the reverse for such horticultural products as tomatoes. For these crops, the United States restricts imports to protect growers in Florida and California. If Mexico eliminates barriers to grain imports, the United States will also have to eliminate the import barriers used to protect U.S. growers of tomatoes and other vegetables and fruits. Consumers in the United States would benefit from the lower prices for horticultural products although some U.S. producers could be adversely affected.

For the most part, the impacts of NAFTA on Nebraska and U.S. agriculture will occur slowly as the new provisions are phased in. The longer term affects of NAFTA are likely to include more rapid income growth in Mexico and this could have a greater effect on demand for Nebraska agricultural products than the short-term adjustments in prices. Most observers believe that growth in per capita incomes in less developed countries, including Mexico, is the key to increased U.S. agricultural exports.
Ag Finance & Credit Outlook

Larry L. Bitney

The financial situation for Nebraska farmers and ranchers may be at another crossroads. There are signs that we may be at a turning point in the recovery from the farm financial crisis of the early and mid 1980s.

Balance Sheet Indicators

Balance sheet data for the Nebraska farm sector indicates that debt as a percent of assets peaked at 31 percent in 1985 and then declined to 17 percent as of December 31, 1989. The decline ended in 1990, with a rise back to 18.2 percent. Total farm debt in Nebraska continued to decline, however, from $9.6 billion in 1983, to $6.3 billion in 1990.

A quarterly survey in the Kansas City Federal Reserve district, which includes Nebraska, indicated that farm real estate values leveled off in the second quarter of this year after four years of steady gains. The same survey showed that farm loan repayment rates at banks were lower for the third consecutive quarter. A corresponding increase in requests for loan renewals and extensions occurred in the second quarter of this year.

Credit Situation

The supply of loanable funds appears adequate, and interest rates will most likely continue at relatively low levels. Loan-deposit ratios, a measure of the reserve of loanable funds at commercial banks, also remain at relatively low levels. Citing the same survey by staff of the Kansas City Federal Reserve Bank, the average loan-deposit ratio of district agricultural banks rose slightly in the second quarter of this year, to 52 percent. Eighty percent of the bankers reported that they would prefer it to be higher, and were actively seeking good agricultural loans.

Income

Net farm income in Nebraska will likely be lower this year (1991) than in 1990. Last year was the fourth year in a row that net farm income exceeded $2 billion in Nebraska. By way of comparison, it was one-half billion in 1983.

State net farm income in 1992 will likely continue downward with the driving force being lower livestock prices. Income from cattle, which accounts for about 50 percent of our gross farm receipts will no doubt be lower. Hogs, which account for 8 percent of our gross receipts may experience prices as much as 10 percent lower than in 1991.

Impact on Individual Producers

Variation by area, by enterprises, and by financial situation will likely result in varying experiences for individual producers in 1992. There are a group of producers who have come out of the '80s "lean and mean". Data from a group of farms enrolled in the Nebraska Farm Business Association demonstrates the point. In 1982 this group of farms, on the average, were spending 37 percent of their gross receipts for depreciation and interest. In 1990, this percentage had dropped to 18 percent. While interest rates were lower, the producers had also lowered their relative debt levels. In addition, they had not reinvested in machinery at the late '70s, early '80s level, thus keeping their depreciation expense low. During the nine-year period from 1982 through 1990, their operating expenses other than interest stayed about level at 55 percent of gross receipts. This reflects their attention to efficiency, and cost containment strategies.

The producers described above have positioned themselves to be very competitive, and they will be able to deal with a downturn in farm income. On the other side of the coin, producers who have not made significant financial progress in the last four years, or who have made financial commitments based on the income levels of the last four years, may be facing financial problems in 1992.
Outlook for Input Costs for 1992

H. Doug Jose

Early indications point toward relatively stable input prices for both crops and livestock for 1992. With inflation running at about 4 percent we can expect some modest price increases in the agricultural sector. There is a good possibility that interest, fuel and feed costs could be lower in 1992 resulting in total production costs that are stable to marginally higher in 1992.

Interest Rates

Declining interest rates will probably bottom out in 1992 reducing financing costs. If, for example, operating expenses for irrigated corn are $150 per acre, a decline in interest rates by one percentage point where the operating expenses are financed for eight months results in a saving of $1.00 per acre ($150 x .01 x 8/12 = $1.00). The impact for livestock producers could even be greater. For a 500 lb. feeder animal purchased for $.90 per lb., a drop in interest rates of one percentage point for a 280-day feeding period results in a cost reduction of $2.83 per animal.

Fuel Costs

The past 15 months have been a real roller coaster for fuel prices. The end of hostilities in the Middle East and OPEC’s plans to increase output will keep fuel costs steady to slightly lower in 1992.

Fertilizer and Chemical Costs

Fertilizer prices are 4 percent higher than a year ago, based on USDA’s Prices Paid Indexes. Agricultural chemicals are about 10 percent higher. Increases for the 1992 crop year should be modest for both inputs - in the 3 to 5 percent range. The demand for both inputs is steady but should not exert any upward pressure on prices. By the same token, environmental concerns are real but will not reduce demand enough to force a price reduction.

Seed Costs

Seed prices in 1991 were about the same as in 1990. The prices set for 1992 are going to be influenced by the effect of the drought on seed production in the eastern corn belt. Look for a 5 to 10 percent increase next year.

Feed Costs

The index of prices paid for feed is now about 8 percent lower than it was for the average of 1990. As this article is prepared, corn prices are slightly higher than they were at the same time a year ago and soybean prices are down slightly. The outlook for feed costs remains optimistic from the feeders point of view. Hay prices are down significantly compared to a year ago - down by about 25 percent. The low milk price has limited the willingness of dairy farmers to pay more than $50 a ton for dairy quality hay. Ample quantities of relatively good hay will be available for cattle feeders at $50 or less per ton.

Custom Feeding

With a decline of finished cattle prices of 10 to 15 percent compared to a year ago, custom feeders are very competitive in an attempt to keep their lots operating at or near capacity. Yardage fees should remain very competitive around the $.25 per head per day rate.
A New Look in Farm Financial Statements?

Larry L. Bitney

The '90s may bring more uniformity in financial analysis of farms and ranches than we have seen in any previous decade. For Nebraska farmers and ranchers, this could mean that one set of financial statements would satisfy the needs of all of their lenders. At the U.S. ag sector level, access to national and international credit markets would be enhanced with a uniform system of financial reporting.

While this uniformity may not come about quickly or completely, there is momentum building for a significant move in this direction. A Farm Financial Standards Task Force was named in 1988 and was given the charge of establishing universally acceptable financial analysis and reporting guidelines for U.S. production agriculture. This national task force, made up of 50 persons representing various aspects of the agricultural finance industry, recently released its recommendations. The report is entitled, "Financial Guidelines for Agricultural Producers".

The task force's recommendations include: 1) Universal financial reports - which are suggested procedures and principles for constructing a balance sheet, income statement, statement of cash flows, and statement of owner equity; and 2) Universal financial criteria and measures - which are 16 suggested measures of financial performance, how to calculate them, and how to interpret them.

While the recommendations of the task force are guidelines, rather than rigid standards, they provide a set of universal measures and reporting formats. They provide a pattern for producers, lenders, financial analysts, and others to follow in analyzing the financial performance of farm and ranch businesses. They also provide a pattern for farm accounting computer software companies to use in the design of their reports. While there is nothing to force anyone to apply the "standards", it is hoped that having a pattern available will facilitate movement in that direction.

While there has been a talk of the need for more uniformity in farm financial analysis for many years, the formation of the national task force and the publication of their recommendations has brought us closer to the goal of uniformity than ever before. Three events probably prompted the formation of the task force: 1) The "farm financial crisis" of the 1980s, which heightened interest in farm and ranch financial management and pointed out the need for more accurate financial analysis and reporting; 2) The 1987 Agricultural Credit Act, which created "Farmer Mac", a secondary market for agricultural loans; and 3) The formation of the National commission on Agricultural Finance, appointed by President Reagan, which cited a need for standardization of agricultural credit analysis and farm financial statements.

Many farmers and ranchers will need to keep a bit more in the way of records to provide the information for the universal reports and measures. An accrual-based income statement is required, in addition to balance sheets to calculate measures of profitability, repayment capacity and financial efficiency. To insure that the financial measures are accurate and comparable from farm to farm, the task force also recommended methods of valuing assets, such as breeding cows and sealed grain. The producers' reward for this additional effort is an accurate appraisal of the financial condition and performance of their farm or ranch business, and the ability to compare theirs with the performance of similar farms or ranches.

Implementation of the task force recommendations is just beginning in Nebraska. Workshops on financial analysis, using the measures, are being held for agricultural lenders in Nebraska this fall. Providers of farm accounting and analysis services will be reviewing their procedures to see if they conform with the newly published guidelines. There will be educational programs for producers, conducted by the Extension Service and others. It will be interesting to see the degree of uniformity that results from this major effort.
Outlook for Corn in 1992

Lynn H. Lutgen

Corn producers will face a rather dull corn market during the fall of 1992. The corn market has gone through drought, frost, and potential Russian buying credits, leaving the market in a trading range of $2.40 - $2.55 Dec. futures. Corn producers should be able to look to the spring of 1992 for a good opportunity to finish selling 1991 crop and forward pricing opportunities for 1992 production. The most prominent negative feature that would restrict a potential spring rally is the low five percent set-a-side for the 1992 corn crop.

The corn market will be analyzing the following factors as we enter 1992.

The low projected carryover, even in the face of last October's report which increased production estimates from the September report by approximately 200 million bushels. The increase in production translated into a projected increase for September 1992 carryover from one billion bushels to 1.2 billion bushels. A projected carryover of 1.2 billion bushels is a marginal amount that will be subject to significant percentage changes with any increase in export demand. Any significant increase in projected demand, has the potential of causing wide fluctuations in the corn market.

The amount of credits and consequently the amount of grain exported to the Soviet Union will not only be monitored closely by the trade but could lower the carryover figure significantly, which will cause the market to rise.

The previous demand factor coupled with a supply control factor of another potential drought in 1992 will influence the spring market.

As the U.S. enters the winter months, much of the corn belt is under extreme drought conditions. The trade will continue to watch the amount of moisture received during the fall and winter months. If it is a dry winter the trade will react to the expectation of a potential drought that would lower 1992 production and lower the carryover for September 1993 in a very significant way since the present 1.2 billion bushels is considered marginal. With any significant change in either carryout, continual dry conditions, or a lower than expected planting intention report in March 1992, could send the May futures over the three dollar mark in the spring of 1992, up 35-40 cents from the October 1991 trading range. As one looks to sell either stored 1991 crop or forward price 1992 crop, the spring of 1992 will probably hold the best opportunity for prices. It should be noted that many times the rumor is worth more in dollars and cents than the fact.

If corn prices do increase substantially in the spring, our attitude will change and we will wonder how high the prices will go, and whether there will be a true summer drought. My best advice is, if you find a price in the spring you like, take it, and if prices should explode later on buy a call option against the corn already sold. Under this strategy you'll make the additional money on the price rise through the use of a call option rather than the corn itself.

<table>
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<th>1991/92 Projections October</th>
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Outlook for
Wheat in 1992

Lynn H. Lutgen

Dry fall planting conditions, low projected carryover and projected Soviet credits could lead to an extremely strong market in the spring of 1992.

Presently drought conditions prevail throughout most of the winter wheat growing areas leading to speculation on the amount planted, growing potential, and what acres might fall under the prevented planting provisions of the Farm Bill. USDA announced a five percent set-aside and 15 percent flexibility provision for the 1992 wheat program. USDA also declared that producers can "certify" their acreage base, not go into the wheat program and plant all the wheat acres to other crops, without losing base.

Projected carryover for July 1, 1992 is predicted to be between 440 million bushels to high of 553 million bushels which will be the lowest carryover in wheat since the 1970s.

Total production in the U.S. for 1991 was estimated at under 2 billion bushels on October 1, 1991, again one of the shortest crops in recent history.

There is still a lot of speculation on what level of credits the U.S. will grant the Soviet Union and its satellite countries. Most are speculating with the present mood in congress, the amount of credits will be substantial.

Other factors to consider when estimating prices are:

1. Canada's crop is larger than last year and it appears Canada will also be offering the Soviet credit but will tie it to their production.

2. China has been our number one or two customer in recent history, but even though we have recently offered China subsidized wheat, China's most favored nation status is in danger, due to human rights issues.

3. USDA has projected the Argentina crop to be 16 percent smaller than last year, but production in the EEC is predicted up, while production in Australia is predicted down.

The U.S. will no doubt face competition from the major wheat exporting countries.

As one dreams of all the grain we might ship the Soviets because of lower production etc., we must remember that shipping into the Soviet Union is tempered by infrastructure problems.

Regardless, it would appear that the market was placing floors under wheat prices during the fall of 1991 meaning there will be little downside price risk in early 1992, with major support around $3.50 Kansas City Dec. wheat. Consequently, we will probably see steady prices until we get a chance to see what credits will be given and what the projected planting will be.

After the first of the year wheat price could, given the low carryout, increase to $4.00 - $4.50 May Kansas City if the market receives any good export news by spring of 1992. If you have sold 1991 production you might consider buying some call options if the market should start to rally thereby increasing the price you received for the wheat that was sold last summer. The spring of 1992 May also be the time to forward price 1992 production.

U.S. Wheat Supply and Demand

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<th>Item</th>
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<tr>
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Outlook for Soybeans in 1992

Lynn H. Lutgen

The soybean situation faces uncertainty in the export picture, Brazilian competition and the impact of Soviet buying through the use of credits.

Before the October 1991 report, soybean producers could have developed marketing plans for 1991 crop based on a $5.75 average with a 75-cent deviation on both sides depending on ending production and projected carryover. Before the report, production was estimated at 1.817 with an accompanying carryout September 1992 of 250 million bushels. Therefore the chances of selling above the average were quite good. Conditions changed with the release of the Oct. report that increased production from 1.81 to 1.934 billion bushels which in turn increased the carryout to 300 million bushels. While 300 million bushels is not a huge carryover, it did increase the chances that the major portion of the movement in prices would be close to the $5.75 obtainable average or below.

Previously when we have witnessed this kind of year which caused large bushel changes from one government report to the next we have also seen changes continue throughout each USDA report. Therefore the producers should pay close attention to the final USDA January 1992 report in order to determine which side of the $5.75 average prices might trend on.

Another factor to watch in 1992 will be the amount of credits that could change the export and projected carryout picture. Foreign competition, especially Brazil and Argentina will affect world market prices. Brazil recently has, through government policy, been discouraging soybean production, but that appears to be changing and Argentina will probably decrease wheat production by 20 percent and most of those acres will switch to soybeans. In the past the EEC has purchased 45 to 50 percent of the world’s bean-related exports. With the increase in oilseed production that has been taken place in the EEC, U.S. producers should not look to the EEC to have much of an impact on lowering the United State’s 300 million bushels projected carryout.

Prices next spring will also depend on acres planted and potential drought conditions. We must remember we saw some corn acres switched to soybeans due to late planting conditions in the spring of 1991. Next spring we will most likely see those acres return to corn.

In trying to determine when to sell we must also remember the market is not giving us the “carry” needed to cover the five to eight cents per bushel per month its costing us to store. The producer would need at least a 40-cent rally to hold soybeans for five months.

A better strategy might be to sell the soybeans and after January 1992 then if prices rally because of USDA January reports, or less Brazilian planting, etc. and buy a call option. At the same time the producer should look for an opportunity to forward price 1992 crop on rallies above the $6.00 mark.

### U.S. Soybean Supply and Demand

<table>
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<tr>
<th>Item</th>
<th>1989/90</th>
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<th>1991/92 Projections October</th>
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<td><strong>Area</strong></td>
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<tr>
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<tr>
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<tr>
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Establishing a Marketing Outlook for Dry Edible Beans

Daryl E. Ellis and David S. Nuland

The marketing outlook of dry beans consist of several factors - carryover stocks, projected planting intentions, domestic use, anticipated exports, and seasonal price patterns. Unfortunately, no USDA reports are available showing carryover stocks, detailed planting intentions, or domestic use as found for the more common crops such as corn, soybeans, or wheat. To complicate the situation, USDA reports combine numerous classes of dry beans into acreage and production reports making it difficult to estimate expected supply by individual dry bean class. However, USDA recently began projecting acreage by class based on a mid-summer survey, well after planting has occurred.

Dry bean exports are quite variable depending on competition from foreign production, ability of the importing country to finance or obtain credit, availability of U.S. sponsored export enhancement programs, and unexpected world events. For example, before the invasion of Kuwait, August 1990, Iraq was the largest importer of Great Northern beans accounting for 24 percent of all U.S. Great Northern exports. All these factors make it difficult in developing a market outlook for dry edible beans.

Fortunately, general price movements within a marketing year can be explained with the use of seasonal price indexes. Seasonal price patterns arise from seasonality in demand, seasonality in supply, or combination of the two. Most agricultural products have some seasonality of supply and marketing due to physical/biological aspects of the production process. Seasonality in demand is often related to holidays and climate. Seasonal price patterns can change over time due to factors such as changes in production patterns, improved transportation, development of storage, and new foreign markets.

Seasonal price patterns are usually described using a monthly index. A monthly price index of 1.0 or 100 percent means the monthly price was equal to the annual average, and an index of 2.0 or 200 percent indicates the price for that month has two times the annual price.

There is a definite seasonal price pattern for corn and wheat in the Nebraska panhandle ranging from a seasonal low at harvest to seasonal high several months before harvest. In contrast, the average five year index for 1986-1990 crop marketing years show little seasonal price movement ranging from 90 percent to 115 percent of the average annual pinto prices. Price seasonality for Great Northern beans indicate even less of a seasonal price movement. Great Northern bean prices tend to peak immediately after harvest. The seasonal price movement among individual years was variable for both classes of dry beans.

![Grower Dry Bean Price Seasonality Five Year Index (1986-1990)](image-url)
Holding Grain for Economic Profit in the 1990s

James G. Kendrick

During the late 1970s, U.S. Agriculture was producing “once row to fence row,” experiencing record grain exports, a weak dollar and interest rates below the inflation rate. In the early 1980s, the Federal Reserve System pushed interest rates markedly upward. World financial markets reacted by driving the dollar to record highs, which collapsed exports. However, U.S. grain production remained high. The result was an expanding surplus that needed to be stored. To supplement government storage facilities, and to supplement producer incomes, the Farmer Owned Reserve (FOR) program was expanded. Producers were financially encouraged to build on-farm storage facilities and store part of the burdensome surpluses.

In those years, the wise manager harvested grain and placed it under Agricultural Stabilization and Conservation Service (ASCS) loans, storing the grain in government subsidized storage facilities until the grain was eligible to enter the government subsidized FOR program. Any other “marketing” strategy was likely to reduce farm income, although constantly selling grain to the U.S. government is not normally considered “marketing.”

Looking toward the 1990s, it is possible, perhaps probable, that U.S. grain producers will receive income more from the open market than from government programs. The open market for grains is global, can dramatically fluctuate as supply/demand conditions change in other nations, can reward skilled management, and economically punish those who fail to reevaluate continuously their marketing plans. As part of a total marketing plan, on-farm storage of grains is briefly examined here. Perhaps a change in definition would be helpful. Storage implies a long-term activity where short-term market changes are ignored. Storage, in this definition, is what governments do in establishing and maintaining a strategic reserve.

Holding implies something else—temporarily holding grain until market conditions are more favorable. During harvest, for example, a local elevator may be flooded with grain trucks trying to unload. Such conditions often result in a weak basis (lower price paid) as elevator management tries to signal producers that they don’t want more grain now. Holding grain in on-farm facilities under these conditions may be wise. As the grain elevator moves the harvest bulge forward in the marketing system to terminal markets, the local basis often strengthens (higher prices are paid to producers). Holding grain now is only profitable if the rise in price will be greater than the costs incurred. Holding costs include the depreciation on the holding facilities, variable costs (heating, air flow, etc.) to keep the grain in condition, plus the opportunity cost of money tied up in the unsold grain. Typical costs for short-term, on-farm, grain holding total about four cents per bushel per month for corn, six cents for wheat and eight cents for soybeans.

Repeating, to profit from on-farm grain holding, the price paid by the local elevator must rise more than the holding costs. To hold corn from mid-September until the end of February would cost about 22 cents per bushel (five and one-half months at four cents per bushel per month). For this “holding” to be profitable, the price paid by the local elevator must be expected to rise by more than 22 cents per bushel during the five and one-half months. Some of this price rise may come from a strengthening in the local basis, as noted earlier. Additional price increases may come from an increase in the futures price, which the local elevator uses in establishing the price paid to producers. If futures prices remain steady, or worse yet, fall during the holding period, expected holding profits can be turned into real losses.

Market analysis suggest that the recent trend is for corn
prices to fall nine cents per bushel during the five and one-half months after harvest, soybeans to fall 24 cents per bushel and wheat to rise two cents per bushel during the four and one-half months after harvest. If these past trends suggest the future, then the local basis must close significantly after harvest if holding grain is to be profitable.

Specifically, the corn basis must be expected to strengthen (close, tighten) by more than 31 cents from mid September until the end of February (22-cent holding cost plus the nine-cent recent historical decline in futures price); the soybean basis must strengthen by more than 68 cents per bushel (44-cent holding cost at 8 cents per bushel per month for five and one-half months plus the 24-cent per bushel recent historical decline in futures price); the wheat basis must strengthen by more than 25 cents per bushel during the four and one-half months after harvest (27-cent per bushel hold cost minus the recent historical rise of two cents per bushel during the mid July through the end of November period).

While such basis strengthening is possible (31 cents for corn, 68 cents for soybeans, 25 cents for wheat), recent history would suggest it is highly unlikely. Thus, as producers look more to the open market for marketing signals, the market has been signaling that on-farm holding of grain is not profitable. Perhaps the future will be different, but the wise manager will realistically evaluate any grain holding strategy each year rather than automatically placing grain into on-farm storage facilities just because “it would be a shame to let all that space go to waste.”
Farm Program Continues to Emphasize Flexibility While Tightening Up Payment Provisions

Roger A. Selley

The 1990 farm bill expanded several provisions of the 1985 act. Features that are still being implemented in 1992 include cropping flexibility, encouraging soil and water conservation, and stabilizing payment provisions.

The 1992 farm program will again include 15 percent normal flex acres (NFA) and 10 percent optional flex acres (OFA) for both wheat and feed grains. There will no longer be a winter wheat option, thereby requiring NFA on all wheat acres in 1992. As in 1991, the flex portion of a base can be planted to other program crops and a wide range of nonprogram crops and still conserve base. Also, as in 1991, the NFA is unpaid and the OFA will be eligible for deficiency payments only if planted to the program crop. In 1992, however, under the Integrated Farm Management Program option (IFM), producers that want to rotate wheat and feedgrains base acres with legumes and grasses will be able to do so without sacrificing potential for deficiency payments. The IFM provides flexibility while placing an emphasis upon conservation. For more details on IFM and a comparison with 0-92, see University of Nebraska Cooperative Extension Campaign Circular 362 or contact your local ASCS office.

At the same time the 1990 farm bill relaxes cropping restrictions, it limits the opportunity to increase program payments. For example, the only way a producer can build base is to drop out of all wheat and feedgrains programs and over-plant the historical crop base. Program yields were fixed under the 1985 bill, but combining a dryland farm with a farm already having an irrigated yield would result in all of the acreage eligible for irrigated payment if actually irrigated. In contrast, an irrigated acres maximum (IAM) has been established for all farms in 1991. The IAM is fixed and, therefore, limits the acres paid irrigated yield regardless of the number of acres irrigated.

Establishing an IAM has also resulted in payment yields that no longer depend upon whether the planted crop is irrigated. Program crop acres on a base that has been 100 percent irrigated in the past, for example, can now be grown as dryland and still receive an irrigated payment yield. On the other hand, base acres will receive a historical weighted yield (HWY) instead of separate irrigated and dryland yields. In those farms with an IAM less than the base and therefore the HWY is less than the irrigated yield, producing the program crop under irrigation will be less competitive with substitute or flex crops on OFA.

One issue for 1992 that remains unresolved as of this writing is corn and milo base. Under the 1990 farm bill the two bases were to be separate. The Secretary delayed implementation of that provision in 1991. Congress is currently considering amendments to the 1990 farm bill. If not amended, separate corn and milo bases are likely to be implemented in 1992 thereby reducing flexibility.

The acreage reduction program (set aside) for 1992 is five percent for wheat, corn, grain sorghum, and barley, reduced from 1991 levels of 15 percent for wheat and 7.5 percent for corn, grain sorghum, and barley. Oats continues with a zero percent set aside. Based upon earlier USDA estimates for a five percent set aside, 1992 corn production is projected at 8.44 billion bushels.
Slaughter Cattle Outlook

Allen C. Wellman

Large swings in choice slaughter steer prices took place in 1991. This is in sharp contrast to the rather orderly prices that occurred throughout 1990. Cattle on feed numbers through late fall generally ran above year ago levels. Many feedlots experienced large losses on cattle marketed in the summer and early fall. Prices rallied in the fourth quarter.

Supply Forecasts

In the months ahead, feedlot inventories will stay above year-ago levels. But marketings probably will be posting much more modest increases. Heavier marketing weights will continue to bolster beef production, however. The expected marketings USDA reported for the next quarter were 2 to 4 percent higher than last year’s. But, recent cattle-on-feed reports suggest the marketings in early 1992 could increase around 1 to 3 percent.

If fed steer and heifer slaughter does average 1 to 2 percent higher than year earlier levels, it will probably be offset somewhat by continued reductions in cow slaughter.

Cattle feeders will make placement decisions based on feeder cattle prices, feed grain prices and their market expectations. The number of cattle placed on feed the first half of the year will depend a lot on the close out numbers received in late 1991.

Demand Prospects

Retail beef prices continued to run near the top of the range during recent weeks. It appears margins in the wholesale to retail channels are wider than normal. If margins return to historical relationships, then the consumer should see somewhat lower beef prices in the meat counter or the cattle feeder should experience higher cash prices.

Beef demand from an analyst’s view is hard to quantify. Some recent studies suggest some stabilizing of demand in the last one to two years. Most cattle feeders would argue that price adjustments, at all levels above the feedlot, still are very slow to respond when prices fall and adjust too quickly when prices rise.

Marketing Plan

Cattle feeders need to formulate a written marketing plan for 1992. Price risk management strategies should be in place to handle the total range of possible market outcomes. Managing price risk in 1992 appears essential after the losses experienced in 1991.

Price Forecasts

Early 1992 prices are likely to be down significantly from early 1991 levels. Prices averaged near $80 per cwt. in the first quarter of 1991.

Prices in the second quarter could about equal prices of a year earlier. Obviously this assumes feeders are moving cattle to market as they make weight and grade. Excessive weights can quickly add pounds to beef production and pressure cash prices.

Prices the second half of the year can average near 1991 levels if marketings are orderly. Price pressures can occur quickly, so holding actions should be avoided. Cattle cycle theory suggests price trends may be adjusting downward in 1992. Gradual price declines from recent levels should be planned for by mid-year. Prices somewhat lower than second half 1991 levels might materialize if more negative than positive factors are affecting the cattle market. Astute marketers will seize forward pricing opportunities, at anytime in the first half of the year, to ease a sharper than expected market decline.
Feeder Cattle Outlook

Allen C. Wellman

The U.S. total cattle inventory is experiencing modest growth at this time. It appears that the cattle herd could grow another 8 to 10 percent before the mid-1990s.

Projections put 1992's January 1 cow herd close to 4.5 million head, up 1.6 percent from a year earlier and the largest since 1986. This larger cow herd suggests further growth for the calf crop.

Forecasts are calling for declining feeder cattle and calf prices in 1992. Still, returns to cow-calf operations probably will be sufficient to support further expansion in the cow herd and the overall inventory.

Feeder Cattle Supplies

Although total feeder cattle numbers are above last year's, they are still small by historical standards. Estimates of residual supplies of feeder cattle over 500 pounds were 1 percent larger than the year ago count.

Residual supplies of calves under 500 pounds also were about 1 percent larger.

Until recently, strong competition for these relatively tight supplies has allowed feeder cattle and calves to command large price premiums over fed cattle prices. In the months ahead, however, lower fed cattle prices, rising feed costs and negative feeding margins likely will erode the premiums.

Feeder cattle supplies will continue to be bolstered somewhat by imports from Canada and Mexico. This year's total feeder cattle imports may approach 1.5 million head. This would be equivalent to about five percent of U.S. steer and heifer slaughter—a small part of the total numbers, but these imports do add to available supplies.

Range, Forage and Feed Conditions

Feed grain price levels continue to be important to feeder cattle and calf price levels. Historically rising corn prices will temper bids for feeder cattle and calves. The reverse is true if feed grain prices should decline. An example for 700-800 pound feeder steers, each 10 cents per bushel increase in corn prices raises the projected break even selling price by about 40 cents per cwt. Or, to keep break evens unchanged, feedlot operators would lower the amount paid for feeder steers by about 60 cents per cwt.

Range and pasture conditions in many cattle raising areas were above average in 1991. Although some deteriorations in pasture indexes did occur late in 1991, it appears that favorable forage supplies exist over a large part of the plains and western states. Feeder cattle and calves appear to be in strong heads so distress sales are likely to be few and far between.

Prices

Prices for yearling steers in late 1991 were 5 to 8 percent lower than at the same time in 1990. Seasonal price strength over the winter could carry yearling prices back up to near year-ago levels if fed cattle prices rally. But if my prediction about downtrending fed cattle prices through much of 1992 are correct, then this will take feeder cattle prices lower, too. During the last half of 1992, heavy feeder steer prices may trade $6 to $10 lower than their recent highs.

Prices for 500-600 pound steer calves also will likely be treading downward throughout 1992, but probably somewhat more noticeably during the second half of the year. Prices on heavy calves late in 1991 were averaging near $95 per cwt., in some cases slightly lower. Early 1992 seasonal strength may carry prices a little higher but steer calves are likely to be under price pressure if fed cattle prices fail to respond over the winter. Prices for 500-600 pound steer calves during the last half of 1992 are likely to average lower than prices recorded during late 1991.

Unexpected lower feed grain prices or stronger than expected fed cattle prices could change the outlook for feeder cattle and calves throughout the last half of 1992.

Feeder cattle and calf producers should be dusting off their marketing plans in 1992. Some selective forward pricing could help soften the expected decline in prices over the next two to four years.
Hog and pig reports indicate an expansion in hog numbers is underway. Cash slaughter hog prices in 1991, at Omaha ranged from the mid-$50s in the summer to the mid-$30s in the fall. Most hog producers were good marketers in 1991, it appeared the threat of expanding supplies and lower prices kept weights in check and pork production expansion was slower than expected.

**Supply Forecasts**

Recent hog and pig reports suggest that inventories will be increasing throughout 1992. Estimates are that hog numbers could increase 5 to 8 percent. Obviously producer intentions are just that—intentions—the actual amount of the increase will not be known until the hogs actually are slaughtered. During the second half of 1991 hog slaughter and pork production consistently ran lower than most predictions. It is possible that the expansion in 1992 will be slower than many analysts suggest. On the other hand, historically the USDA reports tend to underestimate the inventory increases during the expansion phase of the hog cycle. The opposite appears to be true during the liquidation phase, often the expected reductions, the expected rate of decline, are over estimated. My guess is that the expansion now taking place will be more modest than expected. Also, hopefully, the external factors that can influence the market will be largely positive and therefore price supportive.

Hog cycle theory suggests that hog inventories started their growth in the spring of 1990. The last four cycles averaged about 18 months from the low supply period to the high supply period. The shortest period of time before expansion was completed and liquidation started was 12 months. The longest period was 27 months. It appears the current hog cycle supply direction change will occur sometime in 1992. It appears this supply cycle will be more like the longer of the last four, unless abrupt changes take place in early 1992.

One last supply comment, varying amounts of hogs and pork are exported from Canada into the U.S. Recently supplies have been higher, but with lower current and expected price levels, supplies probably will tend to run in the bottom half of the last five-year range.

**Demand Prospects**

Pork demand appears to have improved somewhat in the last one to three years. Total per capita meat supplies are a record large but pork demand appears to be holding steady. Pork industry spokespeople are suggesting that opportunities exist for expanding the market for pork. Some of this expansion can take place in the U.S., but foreign market expansion holds the most promise.

**Price Forecast**

Cash hog prices are expected to trade well below year-ago levels throughout most of the first half of 1992. Omaha prices averaged in the low $50s in the first quarter of 1991 and the mid $50s during the second quarter. Likely the lowest prices in the current hog cycle will occur in the second quarter of 1992.

Price outlook for the second half of the year will depend on producer supply decisions made in the first half of the year. If hog supplies start a slow decline by next fall then prices should slowly start moving upward.

Hog producers should watch feed and protein prices closely. Some protection of feed costs may be necessary if weather conditions do not favor an average corn and soybean crop in 1992.

**Marketing Plan**

Declining price periods often provide opportunity for some selective hedging of hogs being or to be produced. Producers with written marketing plans should do some selective hedging if personal price targets are reached. Remember the top managers year after year achieve average selling prices that are $3-5 higher than the reported average cash prices reported at your local market or Omaha.
Animal Rights

George H. Pfeiffer

Issues of animal welfare and animal rights have become an important consideration in the use of animals for many purposes in recent years. State legislatures and the U.S. Congress have debated and on occasion passed laws relating to the confinement of cattle, swine and poultry, the use of animals for research and product testing, and in sports, exhibitions, and entertainment. Groups with interests in animal welfare and animal rights have become powerful and well funded lobbying forces with a cadre of sympathetic legislators willing to champion their causes.

It is a mistake to categorize the animal rights-animal welfare lobby as a monolithic entity. Animal welfare groups have generally been concerned with animal well-being in terms of proper care, nutrition, prevention of unnecessary suffering and humane slaughter. Animal welfare groups have not generally questioned the legitimacy of using animals to meet human needs and wants as long as such uses are carried out humanly and that animals are cared for properly. Most farmers and ranchers are sympathetic to the basic goals of animal welfare, although differences may exist about what constitutes proper care and humane treatment.

Animal rights groups differ from animal welfare interests in their perception of what is appropriate use of animals. Animal rightists generally hold that humans have no right of domination over animals. They believe that anything done to or with animals that society would object to being done to or with other humans is morally reprehensible. Thus, virtually any use of animals is not condoned.

The public, in general, has largely supported the efforts of animal welfare groups while simultaneously believing that farmers and ranchers conscientiously protect the welfare of the animals they own. At the same time, animal rights groups have capitalized on real and fictitious cases where the welfare of animals has been egregiously violated to raise funds to promote the animal rights efforts. The animal agriculture community has done a poor job of distinguishing between supporting animal welfare and supporting animal rights groups opposed to any and all uses of animals.

Public policy on the proper use of animals will be ultimately determined by public perception rather than reality. All sides in the debate have blemishes that opposing sides have uncovered. The issues surrounding the handling of sick, injured, “downer” animals by stockyards clearly made agriculture appear insensitive and uncaring. Videotapes of research animals being unnecessarily abused by handlers has painted all such uses as cruel and abusive. At the same time, animal rights activists have contributed to their image of unreasonable fanaticism.

Attacks on research laboratories using animals and veterinary schools, picketing of fairs and exhibitions and following a vegetarian lifestyle have contributed to this image. The more recent pie-throwing incident in Iowa and the publication of advertising which compared animal slaughter with serial murders in Milwaukee hardly enhanced the reputation of animal rights groups as reasonable people with positions to be taken seriously.

Agriculture must realize that perception rather than reality often drives public policy and that “rightness” or “wrongness” may be determined by perceptions rather than by scientific fact or proof. The radical changes in animal care systems that have occurred in Europe resulted from public perception of what is “right” rather than from evidence that such animals are demonstrably “happier” than animals raised under other systems. Agriculture must strive for both the perception and the reality of being above reproach if it to avoid intrusive and burdensome rules governing the care and use of animals.

Agriculture must take animal welfare and animal rights seriously. Public pressure in some European countries has led to requirements such as prohibitions against keeping chickens in cages, and requiring that dairy cows be allowed to graze green grass. Public misperceptions in this country could lead to the same kinds of laws.
Agricultural Water Supplies

Raymond J. Supalla

Groundwater and surface water resources are important to Nebraska’s irrigation farmers, but other producers are also affected by a continuing public effort to maintain high quality water. Society demands that available water supplies be allocated fairly between competing uses and that water quality be protected by everyone who directly or indirectly affects the water resource. In recent months much has happened to affect surface and groundwater availability for agriculture.

Surface water supplies have been short in many areas of the state in 1991. Lake McConaughy is at its lowest level since the 1950’s. Irrigators and recreation interests are battling for water from the Harlan County reservoir, which is at its lowest level since first filling in 1957. Also, for the first time in history, the Nebraska Department of Water Resources has had to shut down Nebraska irrigation diversions from the Blue River Basin to provide Kansas with the water supplies they are legally entitled to. These problems and others will only be solved through better weather and good public policy. You can’t do much about the weather, but public policies can be enhanced through effective citizen participation in the policy process. In the months ahead, the Corps of Engineers and the Bureau of Reclamation will be addressing the Harlan County shortage, and management of Lake McConaughy will continue to be addressed by the Public Power Districts and others in proceedings before the Federal Energy Regulatory Commission.

A more general surface water issue concerns the recent passage of the Gjedson Amendment by the U.S. House of Representatives. This bill would require irrigators who produce subsidized crops to pay the full cost of federally subsidized water for any new federal water project, or for any new water supply contracts. This proposal, if it becomes law, has the potential to substantially affect the cost of federally supplied water for irrigation in the future.

Nebraska groundwater supplies have also been stressed. Since October of 1990 over 300 new wells have been drilled in Nebraska and nearly 400 previously inactive wells have been brought on line to supplement diminished water supplies from other sources. The additional pumping due to increased wells and low rainfall has led to a renewal of significant groundwater declines, with the most severe declines occurring in southwestern and south central Nebraska. Groundwater declines have been slowed through implementation of withdrawal restrictions by the Upper Republican NRD in Southwestern Nebraska. Three other NRD’s (Central Platte, Upper Big Blue and Little Blue) have control areas established and plans in place to reduce groundwater withdrawals if the decline problem worsens.

In 1992 it is unlikely that additional actions will need to be taken to slow the rate of groundwater decline. If the dry weather and irrigation growth continues, however, producers in the affected areas should expect additional management guidelines and/or irrigation restrictions sometime during the 1990s.
Water and environmental issues continue to challenge Nebraska policy makers. Emerging water and environmental issues include: whether Nebraska will assume control of the federal pesticide user certification and enforcement program; enactment of legislation beginning to legally integrate surface water and groundwater; and resolution of the FERC relicensing of Lake McConaughy.

**FIFRA Assumption**

Under the Federal Insecticide, Fungicide & Rodenticide Act (FIFRA), users of "restricted use" pesticides (including farmers) must be certified before they can legally purchase and apply such pesticides. Pesticides may be applied only according to label directions. Nebraska is the only state which has not assumed administration of the FIFRA user certification and enforcement program from EPA. Instead, EPA contracts with the UNL Extension Service to provide user certification training. EPA also enforces pesticide use regulations in Nebraska. Both programs are administered in Nebraska at EPA expense.

In states which administer FIFRA themselves, program funding is provided in part from EPA, with state matching funding coming from some combination of state general funds and taxes on fertilizer and pesticides. In Iowa, for example, fertilizer taxes of approximately 2 percent and pesticide taxes of 0.3 percent fund a variety of ground water quality programs.

Legislation for Nebraska to administer FIFRA has proposed for several years but never been enacted, due in part to agricultural industry opposition.

Nebraska's continuing refusal to administer the FIFRA user certification and enforcement programs could lead to pesticides contaminating Nebraska groundwater not being available for use in the state. Under EPA's *Pesticides in Ground Water Strategy*, the EPA will require states to prepare state management plans to restrict pesticide use to prevent ground water contamination. More strict regulations will be required when pesticides are detected in groundwater, and use bans will likely be required before drinking water limits for a particular pesticide are exceeded.

The EPA has indicated that if a state does not prepare and implement an acceptable state management plan, the EPA will ban any pesticides contaminating groundwater in that state. Nebraska would not be eligible to prepare a state management plan until it assumes administration of the FIFRA user certification and enforcement program.

Enactment of legislation assumes the FIFRA program, LB349, will be debated in the 1992 legislative session. State pesticide management plan legislation will be a legislative issue in future years.

**Surface-Groundwater Integration**

In Nebraska, pits located within 50 feet of a stream are treated as direct diversions of water from the stream, but wells located within 50 feet of a stream are not. Nebraska is the only western state that legally ignores the physical interrelationship between surface water and ground water. Consequently, municipal well fields located near the Platte River are not protected by surface water rights.

LB306, introduced by municipal interests, would make all groundwater located within one mile of a stream legally part of the stream. The bill would also allow municipalities to obtain surface water rights for wells located within a mile of the stream. Such wells would be treated as surface water appropriations, which means that newer appropriations would be subject to the municipal groundwater appropriations.

LB306 implies that all wells near a stream (not just municipal wells) may someday be con-
sidered part of the stream and treated as surface water appropriations, subject to the “first in time, first in right” rule. This raises the possibility that wells “tributary to a stream” could be required to stop pumping (or more likely to provide substitute water) during low flow periods.

LB306 has been advanced out of committee onto the floor of the legislature, the first time this issue has reached the entire Legislature. The bill will be debated during the 1992 legislative session. Enactment of LB306 or similar legislation would be a profound change in Nebraska water law.

**FERC Relicensing**

Hydropower projects must obtain operating permits from the Federal Energy Regulatory Commission (FERC). The federal power license for Lake McConaughy expired in 1987. The power districts that operate Lake McConaughy are now applying for a new 50-year operating license.

Lake McConaughy sits above the federally designated critical habitat for the endangered whooping crane and other endangered species in the central Platte River. Congress amended the Federal Power Act in 1986 to require FERC to give environmental values equal consideration with power production and irrigation. Thus, in the Lake McConaughy relicensing, the issue is not whether some water must reallocated by FERC from power and irrigation to wildlife protection, but how much.

Reductions in irrigation water supply will probably be met through lining irrigation canals and by improving on-farm irrigation efficiency.
Groundwater Quality Management and Research Issues in Nebraska

Timothy A. Park and Raymond J. Supalla

Groundwater quality has emerged as a critical natural resource issue in Nebraska. Growing accumulations of nitrates and agricultural pesticides in groundwater have led to local, state, and federal activity to address the problem. The policy challenge is to find economical ways to reduce agriculture’s contribution to groundwater pollution.

The groundwater quality problem is being pursued locally through management plans developed by Natural Resource Districts (NRDs). The Central Plate and the Tri-Basin NRDs have implemented relatively aggressive management plans which combine education, information reporting and regulations to address the issue. Specific requirements depend upon the severity of the problem. As a problem develops producers are first required to soil test and report fertilizer practices. If the problem worsens, however, both management plans require best management practices associated with nitrogen fertilization.

A similar approach is being taken by the Nebraska Department of Environmental Control (NDEC). NDEC has the authority to establish Special Protection Areas (SPAs) where groundwater pollution is a problem. The main factor considered in designating priority sites for SPA include population, pollution potential, existing water quality, and the availability of alternative sources of drinking water.

The first SPA in Nebraska was a 32-square mile area in southern Nuckolls County in December 1989. The NDEC confirmed the presence of high nitrate-nitrogen levels in well samples around Superior and Hardy. The study found nitrogen fertilizers applied to irrigated farmland were an important source of the nitrate pollution.

The SPA program develops an action plan which will stabilize or reduce contamination levels and prevent the increase and spread of contamination. Action plans include public educational programs and protective measures. Protective measures may include mandatory participation in educational programs, requiring water users to implement best management practices, or other reasonable requirements to address the contamination.

Phase I of the Superior SPA involves farmer participation in certification in fertilizer application practices. Farmers are also required to develop demonstration fields using best management practices, irrigation techniques and techniques for protecting groundwater.

Those in agricultural research and education, including the USDA and the University of Nebraska, have also responded to emerging groundwater quality problems. Using funds available through President Bush’s water quality initiative and Nebraska’s research initiatives, an aggressive research and education program designed to reduce pollution from agricultural activities. Nebraska is participating in at least eight groundwater quality projects in cooperation with USDA, including the Mid Nebraska Water Quality Demonstration Project located in South Central Nebraska, a Hydrologic Unit Area study located in Nuckolls County, and a Management System Evaluation Area (MSEA) program near Shelton.

Agricultural interests hope that this aggressive research and education will be successful enough to avoid extensive direct regulation, but at this point the jury is out. However, it is clear that in the near future there will be aggressive attempts to get producers to voluntarily use more environmentally sensitive irrigation, fertilization and pesticide management practices.
Will 1991 Drought Effects Lead to Increase in Nebraska’s Irrigated Acres?

Leslie F. Sheffield

As we look to 1992, with the extremely dry summer and early fall in 1991 over much of Nebraska, it would appear that the number of irrigation wells and irrigated acres likely will increase. Just how much of an increase will occur is not yet certain.

Some forecasts show that we may be entering a protracted drought period in the 1990s. While no one can say with any degree of certainty how long or how severe drought conditions may be, there have been some ominous forecasts about three major drought cycles: a 100-year cycle, a 170-year cycle, and a 510-year cycle all coinciding in the early 1990s based on some tree ring studies dating back to 400 A.D. by the late Dr. Raymond Wheeler, of Kansas University.

By bending his linear bar graph into a circle, Wheeler came up with a “Global Drought Clock.” Wheeler said over 40 years ago that we would be heading into an extremely dry global weather pattern from 1985 through the year 2000. He pointed out that all three of the major drought cycles are scheduled to coincide in this time frame. He noted that this has happened only twice before in the last 1,500 years. The two previous occurrences were between 950 and 975 A.D. and again between 1250 and 1475 A.D.

Whether or not the major drought cycle does take place, it is a fact that in much of Nebraska, farmers can’t depend on adequate precipitation in the right amounts at the right times during the crucial growth period for crops like corn. Table 1 provides data from the October 1, 1991 Crop Report issued by the Nebraska Agricultural Statistics on the importance of irrigation in the state’s estimated 1991 corn production.

As can be noted in Table 1, while only 68.4 per cent of the state’s total corn acres to be harvested for grain was irrigated in 1991, 80.1 per cent of the total estimated production will be harvested from irrigated acres. This will be Nebraska’s first billion bushel corn crop.

Table 2 provides data on the growth of irrigation in Nebraska from 1980 to 1990.

Based on recent conversations with some of the major irrigation well drilling firms in Nebraska, because of the drought which occurred in July through September 1991, many of them have a backlog of requests to drill new irrigation wells. With a relatively low rate of inflation because of the economic recession in the U.S. in 1991, it appears that most crop input costs for 1992 should remain fairly stable with only slight increases in the prices for most inputs.

Table 1: Estimated 1991 Irrigated & Non-Irrigated Corn Production
(Source: “Nebraska Agri-Facts,” issued by the Nebraska Agricultural Statistics Service, Lincoln, NE, November 1, 1991 Crop Report)

<table>
<thead>
<tr>
<th>Corn Harvested for Grain</th>
<th>Acres</th>
<th>% of Total Acres</th>
<th>Avg. Yield Bu./Acre</th>
<th>% of Total Production</th>
<th>Production Bushels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated</td>
<td>5,400,000</td>
<td>68.4</td>
<td>151.0</td>
<td>81.3</td>
<td>815,400,000</td>
</tr>
<tr>
<td>Non-Irrigated</td>
<td>2,500,000</td>
<td>31.7</td>
<td>75.2</td>
<td>18.7</td>
<td>187,900,000</td>
</tr>
<tr>
<td>Totals</td>
<td>7,900,000</td>
<td>100.0</td>
<td>127.0</td>
<td>100.0</td>
<td>1,003,300,000</td>
</tr>
<tr>
<td>Year</td>
<td>Number of Irrigation Wells*</td>
<td>Increase in Number of Wells</td>
<td>Number of Irrigated Acres</td>
<td>Increase from Previous Year</td>
<td>Percentage Increase from Previous Year</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------</td>
<td>----------------------------</td>
<td>---------------------------</td>
<td>------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>1980</td>
<td>63,821</td>
<td>1,990</td>
<td>7,200,000</td>
<td>250,000</td>
<td>3.60</td>
</tr>
<tr>
<td>1981</td>
<td>65,787</td>
<td>1,966</td>
<td>7,500,000</td>
<td>300,000</td>
<td>4.17</td>
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<tr>
<td>1982</td>
<td>68,348</td>
<td>2,561</td>
<td>7,600,000</td>
<td>100,000</td>
<td>1.33</td>
</tr>
<tr>
<td>1983</td>
<td>69,456</td>
<td>1,108</td>
<td>7,700,000</td>
<td>100,000</td>
<td>1.32</td>
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<td>1984</td>
<td>70,087</td>
<td>631</td>
<td>7,800,000</td>
<td>100,000</td>
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<tr>
<td>1985</td>
<td>70,701</td>
<td>614</td>
<td>7,900,000</td>
<td>100,000</td>
<td>1.28</td>
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<td>1986</td>
<td>70,985</td>
<td>284</td>
<td>7,900,000</td>
<td>None</td>
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<tr>
<td>1987</td>
<td>71,123</td>
<td>138</td>
<td>7,900,000</td>
<td>None</td>
<td>0.00</td>
</tr>
<tr>
<td>1988</td>
<td>71,316</td>
<td>193</td>
<td>7,900,000</td>
<td>None</td>
<td>0.00</td>
</tr>
<tr>
<td>1989</td>
<td>71,858</td>
<td>542</td>
<td>8,000,000</td>
<td>100,000</td>
<td>1.27</td>
</tr>
<tr>
<td>1990</td>
<td>72,852</td>
<td>994</td>
<td>8,000,000</td>
<td>None</td>
<td>0.00</td>
</tr>
<tr>
<td>1991</td>
<td>73,883</td>
<td>1,031</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>1992**</td>
<td>74,517</td>
<td>634</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

* As of January each year (Source: Nebraska Department of Water Resources)

** January 1 through September 30, 1991 (Nebraska Department of Water Resources)

NA = Not available
Groundwater Pollution and Domestic Water Supply Costs

Maurice Baker

Drinking water is a small but important part of the total water pumped in Nebraska. The University of Nebraska Water Center estimates almost all rural households and 84 percent of the state’s public water supplies pump their drinking water from this source. The U.S. Geological Survey estimated only about 6 to 7 percent of the groundwater pumped in 1987 was used for nonirrigation purposes. Obviously, only a small portion of this was for human consumption; however, the quality of this water is of prime importance.

Water containing more than 10 parts per million of nitrate nitrogen is unsafe for infants. It can rob them of oxygen causing “blue baby syndrome.” Long-term effects on adults from consuming high nitrate water is unknown. Research is examining whether it is changed into a carcinogenic form in the body.

Pesticides are detected in an increasing number of well samples. The health effects of consuming water with these are not fully understood.

With all of these concerns, a recent University of Nebraska survey found that most Nebraskans felt that the groundwater quality was good. Only 2 percent considered the quality to be poor and slightly more than 50 percent of the private well owners had their water tested.

When groundwater quality becomes a problem for human use and consumption, costs are incurred to correct them. A number of alternatives are being used in Nebraska.

Several public water supplies as well as private well owners have already drilled new wells because nitrate concentrations are above the acceptable levels. The costs of drilling new wells varies widely over the state because of differing depths of water. In the years ahead, we can expect more new wells being drilled in an attempt to maintain safe water supplies.

One municipality recently installed a water treatment facility to remove nitrates to provide the residents a safe water supply. If nitrate and other pollutants continue to increase, it will become more difficult to find new water sources below acceptable concentrations. Therefore, more treatment facilities will be required and little is known about the costs of these facilities.

Many households use bottled water because of concern about the safety of their water supply. This includes those receiving their water from public water supplies as well as those with privately owned wells. This creates not only out-of-pocket costs but also inconvenience associated with handling the bottles.

Still other households are installing water treatment equipment in their homes even though most Nebraskans believe we have a good quality water. The cost and effectiveness of these varies with the type of equipment installed.

Added costs for domestic water supplies are reflected in higher water rates as public supplies take actions to provide safe water supplies. Individual households also incur greater costs as they install treatment equipment, drill new wells, buy bottled water or take other corrective action. As nitrates and other pollutants increase in our ground water, consumers can expect these costs to increase.
Environmental Cleanup Liabilities for Farmers

J. David Aiken

Businesses and landowners generally are liable for all cleanup costs if their land is contaminated. Farmers, however, have received a limited cleanup liability exemption under the federal Superfund program. Farmers are not liable for the cleanup costs associated with ground water contamination resulting from field application of fertilizer or pesticides registered with EPA. In addition, all petroleum leaks or spills are dealt with through the state petroleum cleanup fund. However, farmers are liable for pollution resulting from ag chemical spills.

The American Bankers Association has estimated that cleanup of a single pesticide spill could cost $500,000. Such liability is retroactive, strict joint and several. Retroactive liability means that the farmer is liable for spills that occurred before the Superfund law took effect. Strict liability means that the farmer is liable without having to be proved negligent. Joint and several liability means that one party responsible for any contamination is liable for the entire cleanup costs even if that party’s contribution was minor.

Finally, the buyer of contaminated land can be liable for all the cleanup costs even if the buyer contributed nothing to the contamination unless the buyer qualifies for the innocent landowner defense. This has resulted in lenders being liable for cleanup costs for land they have acquired through foreclosure when the lender had nothing to do with the contamination.

Because of the potential liabilities in owning or acquiring property that may be contaminated, lenders and prudent real estate purchasers see that they qualify for the “innocent landowner defense” by having an “environmental audit” conducted on the property before they purchase the land or accept the land as loan collateral. A landowner qualifies for the innocent landowner defense and is not liable for contamination cleanup costs under Superfund if the contamination occurred before the landowner acquired the property and if the new owner made “commercially reasonable” inquiries (i.e. obtained an environmental audit) to determine whether the property was contaminated before acquisition. An environmental audit typically begins with the current owner filling out a questionnaire regarding e.g. chemical usage, storage, accidents, etc. If there appears to be some significant possibility of contamination on the site, the environmental audit may include taking soil and water samples to check for contamination. If contamination is found, either the seller will undertake cleanup actions, or the seller may purchase the property at a reduced price.

Little industrial property is purchased today without the buyer first conducting an environmental audit. This trend is beginning in agricultural real estate transactions as well. Avoiding potential contamination cleanup liability in real estate acquisitions through environmental audits is one of the major issues in current real estate law.

Another important issue is the availability of private insurance to insure against environmental cleanup liabilities. Around 1970 most business insurance policies were written with a standard pollution exclusion clause, such that only “sudden and accidental” pollution events were covered (i.e. spills were covered but leaks were not). In the early 1980s this pollution exclusion clause was broadened in many policies to exclude pollution liability altogether. The recent trend is for insurers to exclude environmental liability coverage from business insurance policies. Some companies offer environmental liability insurance as a separate policy with high premiums, although such coverage is getting more and more difficult to obtain. One reason for this is the open-ended nature of environmental liabilities, such as the cleanup costs of an agrichemical spill. Farmers should consult with their insurance agents to determine the extent if any of their environmental cleanup liability insurance coverage.
Conservation in the 1990 Food, Agriculture, Conservation, and Trade Act

Richard T. Clark

The 1990 Food, Agriculture, Conservation and Trade Act (FACTA) strengthened and added to conservation provisions of the 1985 Food Security Act (FSA).

Wetlands will be one of the more important topics in 1992 because farmers and ranchers who alter a wetland after December 23, 1985 may lose eligibility to most USDA programs which now include Agriculture and Great Plains Conservation Programs (ACP and GPCP). The U.S. Department of Agriculture, Army Corps of Engineers, U.S. Fish and Wildlife Service and Environmental Protection Agency are reviewing a unified wetlands manual. If that manual is adopted by all four agencies then farmers may be faced with only one wetland definition. Determinations of wetlands already made by USDA could conceivably be changed if the new manual significantly changes the definition. But, with the definition in the review manual it is likely that most lands currently identified as wetlands will remain so identified. Stay tuned as this is a volatile issue!

During 1992 farmers will continue to implement their conservation plans on highly erodible land. How lenient USDA will be with a violator will depend on the seriousness of the violation. It is my guess that USDA will work with producers trying to implement their conservation plans. With FACTA, producers can be fined in-lieu of losing all benefits if they, in good faith, inadvertently violate the law. Fines can be between $500 and $5,000 provided the producer has not violated compliance provisions in the last five years. Whether or not a violation is in good faith and subject to a fine is decided by local ASCS county committees. Tenants who make an effort to develop a plan, but are prevented from doing so by the landlord no longer lose access to covered programs for all land they farm. Under FACTA the tenant would only lose eligibility on the farm where the landlord prevents compliance.

Another sign-up for Conservation Reserve Program (CRP) will occur June 15-26, 1992 for the 1993 crop year. Farmers wishing to enter land will need to bid carefully since acceptance criteria have changed significantly. Most bids not only will be checked for reasonableness with respect to local rental rates but also will be ranked against all other bids for environmental benefits. Criteria now favor land that could affect water quality. Certain practices require 15 or 30 year conservation easements. These easements require title searches which must be arranged for by the producer but will be paid for by ASCS provided the charges for the search are within limits common to the area. Easements ensure that land will remain in the chosen practice for the specified number of years. They do not grant public access to the land. Easement bids must only be reasonable with respect to local rental rates for comparable land to be accepted.

A new program, Integrated Farm Management Option, permits producers to plant resource conserving crops (RCC) in their rotations and still be eligible for deficiency payments if the RCC is grown on payment acres. Sign-up for that program runs concurrent with regular commodity programs. A Water Quality Incentives Program was also authorized and will probably become available in 1992. Producers will be paid a per acre incentive to develop and follow a water quality plan for their operation. A Wetlands Reserve Program was authorized but is yet to be funded. It would operate similar to the CRP only on cropped wetlands and wetland already converted to cropland. A pesticide recording requirement which will likely be implemented in 1992 was also part of the 1990 FACTA. It generally requires producers to keep records of when, where, and how much a restricted use pesticide was applied. Records must be maintained for two years and made available to public health agencies upon request. Other conservation related actions were authorized in FACTA but many have yet to be funded or implemented.
Community Viability and Waste Management Issues

Paul H. Gessaman

In most census periods since the turn of the century, Nebraska's rural population has declined. The rate of rural population loss increased during the 1980s, with 83 of 93 counties having population declines during the decade though the state had a small overall gain in population (0.5 percent). Effects of "boom and bust" during the last two decades continue to be evident throughout rural Nebraska.

Community Responses

More than 65 communities have responded to current adversity by conducting community or economic development planning programs. Many others have participated in community motivation or leadership development programs.

In many locations, residents have caught a new vision of the future and made a renewed commitment to community well-being. Action groups are at work fostering economic development, improving employment opportunities, and enhancing the quality of rural life. These constructive changes require long-term commitments of local resources, help from local and non-local sources, and a willingness to reach beyond the boundaries of the traditional rural community. Solutions to problem situations often require the efforts of two or more local jurisdictions.

Under LB 840 of 1991, Nebraska municipalities have an additional potential source of funds for local economic development. After completing several preparatory actions, a village or city can hold a referendum seeking approval of expenditures of tax funds for local economic development. Safeguards are provided in rules that must be followed during and after a favorable referendum. While it has not yet been used, LB 840 will provide a significant source of new funding for economic development.

Solid Waste Management

Nebraska communities will face important solid waste management challenges during the next few years. Both state and federal governments are seeking reductions in environmental risks associated with solid waste disposal. Measures to prevent damage to the environment will affect everyone through increased costs, and through changes in products, packaging, and solid waste disposal.

Of Nebraska's more than 260 known solid waste disposal sites, 35 meet present licensing standards. Newly approved EPA regulations for landfills (Subtitle D Regulations) will upgrade solid waste disposal requirements during a two-year transitional period. The nature of Subtitle D effects on Nebraska's licensed landfills are not yet evident.

Nebraska already has started action to close unlicensed disposal sites through adoption of LB 67 of 1991. It requires licensing or closure of all unlicensed landfills by 1995. As present disposal sites are closed, an alternative solid waste disposal system for the state must be developed.

Draft versions of State Solid Waste Management Plan reports suggest transition to an integrated waste management system with regional state-of-the-art landfills. Waste reduction through more selective purchasing by consumers, composting of organic wastes, and recovery of resources through recycling will make regional landfills more feasible and will make landfill operations more easily managed. Establishing regional landfills will require formation of regional networks of local governments, functioning regional management systems, numerous collection and transfer operations, and a coordinated system of transportation services. There will be numerous challenges. The payoff will be high as the state acts to maintain the quality of its environment.
Agricultural Employment Trends in Nebraska

Raymond E. Massey

Of the approximately 60,000 farm operators in Nebraska, over 40 percent of them reported that they hired an employee at some time in the year. Although family members continue to provide the major portion of agricultural labor, hired farmworkers contribute relatively more now, 36 percent in 1987 compared to 22 percent in 1945 (Oliveria).1

Several factors are working together to make farm labor management increasingly important to Nebraska producers. The demographic characteristics of the state and rural areas are increasing demand for agricultural employees while decreasing the traditional supply of agricultural employees. Mobility of the work force allows for greater competition from nonagricultural employers for traditionally farm workers. Increased government willingness to treat agricultural employers the same as non-agricultural employers, contrary to historical preferences given to agriculture, are causing increased record-keeping and managerial work. The increasing number of farms which are organized as corporations demands that even the owner-operator be subject to labor regulations.

Declining population in the rural areas and fewer, larger farms means there are fewer youths who have been raised on farms and are familiar with the job skills necessary for production agriculture. The future supply of farm workers will most likely need to come from nonagricultural sectors. The training needs for these employees will be significant since current production practices require biological and mechanical expertise. Producers who have not previously had to formally train their employees will find themselves needing skills necessary to train and manage a skilled work force.

Recruiting employees from nonagricultural sectors will put agricultural employers in direct competition with other businesses, such as construction and services, for these employees. Agricultural wages and benefits will need to compete with wages and benefits paid in other business. Benefits such as health insurance and paid vacations currently offered to skilled workers in industry will be required in agriculture. Producers may need to begin promoting the non-monetary aspects of living in the country and working with nature as real benefits of farm employment.

In the past, agriculture was given a favored position in labor laws passed by the government. Labor laws, for the most part, did not apply; safety regulations were not as strict or routinely enforced; tax withholding and other governmental reporting requirements of most businesses did not apply. Recently however laws have been passed which are reducing this favored status. Agriculture will increasingly be treated as any other business with regard to governmental regulation.

The percentage of farms organizing as corporations is making employment issues more critical to agriculture. Corporations carry with them employee regulations which further diminish the difference between agricultural and non-agricultural employment practices. In farm corporations where the owners are perhaps the principle employees they still must be treated as employees, subject to governmental regulation and able to garner privileges such as fringe benefit programs.

Awareness of employee management problems and opportunities is becoming critical for agricultural employees who may not have even considered themselves employers and have tended to emphasize production over management responsibilities.

Employment Characteristics of Nebraska Households

Duane A. Olsen and Bruce Johnson

Nebraska's economic growth and development depends upon a good workforce. However, market forces produce changes in both the supply and demand for labor that have impact upon that workforce. To help employers, employees, and communities keep up with these changes, Nebraska households have been surveyed to identify the characteristics of their employment.

Nearly 1,000 households across the state provided employment information in the 1980 UNL Nebraska Annual Social Indicators Survey. These responses described household workforce participation, incidence of self-employment levels, benefit packages and job improvement efforts. Comparisons between metropolitan and non-metropolitan areas were made (metro area households referred to those found in Nebraska communities with a population of 10,000 or more).

Among nonretired households, half reported that one household member works full-time, while another forty percent reported two or more members with full-time jobs. In more than 70 percent of the married households, both spouses were employed.

As expected, household members' workforce participation cose with annual household income. In households with less than $20,000 income, only 17 percent reported two or more member's working full-time jobs, compared with 44 percent of those with $20,000 to $39,999 income and 56 percent of the households with $40,000 or more annual income.

In most Nebraska households, the primary income earner is working for someone else. But, the level of self-employment varies between metro and nonmetro areas. In about 16 percent of the metro households the primary income earner was self-employed compared with 38 percent in the nonmetro households.

Labor market characteristics can also be linked to employee benefit packages. Four out of five metro households had access to group health insurance through their employment; for nonmetro areas the incidence was less than two thirds. Similarly, access to employer-provided paid vacation, sick leave, and retirement programs was available to just over half of the nonmetro households as compared with at least 70 percent of the metro households.

In 1990, about 20 percent of the primary income earners were actively seeking better paying jobs or jobs that better matched their qualifications. The portion was somewhat higher among metro households. While Nebraska has had one of the nation's lowest levels of unemployment in recent times, this suggests a significant portion of our workforce may be described as underemployed.

We expect these workforce characteristics to shape future employment patterns. More Nebraska households will likely have two or more members employed. The incidence of self-employment will decline; but even when a household member is self-employed, another member of the household will often be employed full time—in part to gain employment benefit packages. More nonmetro households will use these same methods to gain access to these benefits. Finally, the availability of employment opportunities which match job responsibilities to skill levels will be an element of growing importance in rural economic development.
Telecommunications in Rural Nebraska: What’s in Store for 1992?

John C. Allen

Elderly rural Nebraska residents may soon have better telephone access for emergency medical help, and all rural residents will possibly have increased areas for local calling if the Nebraska Public Services (PSC) recommendations to the state legislature are supported. What was once a luxury has now become a necessity and the telephone lines which once carried only voices now carry data for up to the minute market changes, orders for small rural businesses, classes for rural schools, and medical information for the rural elderly. Considerable discussion about the future of Nebraska’s rural communities focuses on the use of telecommunications.

Changes in many aspects of rural Nebraska continue to reflect the importance of a high quality telecommunications infrastructure as one component for stabilizing rural communities and the businesses, schools, and farms that exist within them. These trends include:

- Declines in rural population in many counties within the state. As of 1990, population was reduced in all but 10 counties. A 22 percent increase between 1970 and 1990 occurred in the state’s population of persons aged 65 years and over with rural counties having a higher proportion of their population over age 65.

- Changes in education of rural youth. In the 1980-81 school year, there were 1,244 operating school districts in the state. In the 1990-91 school year, that number dropped to 1,018.

- The use of small personal computers in agriculture has increased the use of telecommunications for everyday farming activities.

Recent recommendations by the Nebraska Public Service Commission (PSC) have focused on maintaining citizen rights and increasing services to rural customers. The 1991 recommendations to modify the Telecommunications Act of 1986 (LB 835) to the state legislature focused on several important changes which impact rural community residents. One of the most important recommendations suggests that the state create a life-line fund for low income residents in the state. This program would provide low income residents with funds which would allow them to have ties to medical service personnel and other emergency services. Given the changes in demographics in the state, this recommendation has serious implications. With an increase in the number of people age 65 and older living in rural areas throughout the state, access to emergency medical help has the potential to allow older residents to stay in their homes longer without having to relocate to more urban areas where the services have traditionally been more readily available.

The implications for 1992 indicate that laws regulating telecommunications may continue to have long-term influences on the ability of agricultural producers to use new information technologies and for the rural communities within the state to maintain economic and social viability.
Land Value
Outlook — 1992

Glenn Helmers, Bruce Johnson, and Darnell Smith

For nearly two decades agricultural land values in Nebraska and other major farm states have shown "roller coaster" patterns. A pronounced increase of average values occurred during the 1970s and into the early 1980s, only to be followed by a major devaluation over the next six years. By the end of that decade, agricultural real estate throughout Nebraska was valued at about 40 percent of its peak-year value. Since 1987, land values have partially rebounded - largely reflecting several strong income years for production agriculture. During 1990 and 1991, moderating gains and even relative stability have prevailed.

The market for agricultural land is different from other agricultural markets because it is predominately based on the long-term earnings of land. These expectations change, as has been observed in the wide swings in Nebraska land values over the past 15 years. Crop yields, commodity prices, and production cost are the major variables affecting land returns (hence land values) and when long-term changes in these variables are likely, land value changes follow. There are other complex economic forces also affecting land values such as interest rates, inflation, tax provisions, relative investment risk, credit conditions, etc. which add additional uncertainty.

We have constructed an analytical model of Nebraska's agricultural land market which explains past land values using cash rental rates in estimating those values. Cash rental rates are an expectation of the long-run earnings for land. We have used this model to project land values for 1992 assuming cash rental values are unchanged compared to 1991.

Our estimate of the average per acre irrigated land value for 1992 is $1,146 per acre, up 3 percent from $1,115 in 1991. This is a continuation of an upward trend for the past five years. Should return expectations (cash rents) increase by 5 percent over 1991 our projected value is $1,217 (a 9 percent increase). Conversely a 5 percent decrease in 1992 rents would lead to expected 1992 average land values of $1,079, a 3 percent decline. In general, we expect irrigated land values to increase slightly for 1992, reflecting higher cash grain prices.

Stable cash rents for dry-land cropland into 1992 would lead to an expected value increase of 9 percent for 1992 to $740 per acre compared to $680 in 1991. However, moisture deficit conditions plague much of the state and lower income expectations are more likely. A 10 percent decline in cash rents for 1992 compared to 1991 would lead to an estimated 1992 dryland cropland value of $671 per acre (a 1 percent decrease).

Grazing land values have increased sharply in the past few years - a reflection of the profitable cattle economy. Our model, however, would suggest that the recent value increases may be a partial overshoot and some downward adjustment may be forthcoming. Even if cash returns on grazing land would remain stable into 1992, a 10 percent decline in 1992 values is projected; average value would drop from $156 per acre to $140 per acre. And if cash rents were to drop 5 percent, our projected value decrease would be nearly 19 percent.

In the above discussion we pointed out how 1992 land value estimates change depending on cash rental rate changes in 1992. For perspective, once for irrigated land and twice for
grazing land in the last 15 years did average cash rental rates drop by more than 10 percent in a year's time. On the upside, annual cash rental rate increases of more than 10 percent occurred once for irrigated land and three times for both dry-land cropland and grazing land in the last 15 years.

In summary, the outlook for land returns in 1992 is mixed. On the positive side are lower interest rates and the potential for increased crop prices. However, continuing dry conditions could reduce crop yields in 1992 and add increased irrigation costs. Also, livestock sector income is expected to be reduced in 1992.

These estimates of land values are based on long-run expectations of returns. While land returns in 1992 are important, the long-run expectations of land returns is the primary force affecting land values. Considerable change in expectations can occur with respect to the future role of commodity programs, export demands, grain stocks, weather, cattle price trends, and production costs. So caution should be exercised with these forecasts. There is obviously considerable uncertainty regarding farm sector earnings for 1992 and beyond. Further, the market information series which we used in making these projections is not as complete as we would like. Hence, investors and sellers need to carefully consider the economic situation in 1992 and adjust their land value expectations accordingly.
Nebraska’s Tax Situation and Outlook

A.L. (Roy) Frederick

Nebraska’s property tax system has been ailing for most of the past decade. Legal challenges—first, to the valuation of agricultural land and, more recently, personal property—have left a sickly, if not deathly ill patient. The Legislature has been trying to prescribe the right medicine, but it’s not been easy because the nature of the illness apparently is yet to be fully diagnosed by the Nebraska Supreme Court.

At issue is the uniformity clause of the Nebraska Constitution, specifically Article VII, Section 1. One line in that section reads as follows: “Taxes shall be levied by valuation uniformly and proportionately upon all tangible property and franchises, except that the Legislature may provide for a different method of taxing motor vehicles....”

In the early 1980s, owners of commercial real estate in Buffalo County successfully challenged the property tax levy on their property by asserting that agricultural land in the same taxing district was valued at a lower proportion of its actual market value than their commercial property. The Supreme Court agreed. But it took several subsequent actions by the courts, the Legislature and the state’s voters to exempt agricultural and horticultural land from the uniformity clause in 1990.

At present, the future of personal property taxation is as uncertain as ag land valuation and taxation was in the 1982-1990 period. The Supreme Court seems to be insisting that the uniformity clause applies to all personal property. But what is uncertain is whether property taxes on real estate can continue to be levied and collected if all personal property is exempted from taxation, as is the case in 1991. Eventually, it’s likely that the Legislature will determine that voters should decide whether to retain the uniformity clause on personal property.

No one can be certain of the outcome of such an election. One statewide poll in late August, 1991, indicated that Nebraska voters were split almost evenly on the question of retaining the uniformity clause as it’s presently written. If it’s retained, there seems to be little doubt that agricultural machinery, livestock and inventories will be taxed in the future. And even if voters approve separate categorization of personal property, the Legislature may decide to alter the exemptions that have been in place since the 1970s. In the give-and-take of legislative compromise, it may be necessary, for example, to place agricultural machinery back on the tax rolls if business equipment is to be taxed.

Federal laws, such as the “4-R” Act, which applies to railroad equipment, may also push the Legislature in the direction of taxing ag machinery.

On the other hand, if no personal property taxes are to be levied in the future, the revenue will need to be replaced from another source. One possibility, if the Supreme Court allows, is to continue with a package of revenue enhancers similar to those in effect for 1991, e.g., a surtax on depreciation credit, which is expected to cost Nebraska agriculture about $12 million this year. Another possibility is to extend the state sales tax base to some services. Agriculture probably would not escape unscathed in that case, either.

In short, it seems likely that agriculture will pay taxes on a larger base in the future. While not 100 percent certain, this strongly implies higher taxes, as well. Producers, individually and through appropriate organizations, are encouraged to make their views known as developments occur over the next few months.
“Farmers and ranchers are price takers (not price makers). As a result they, more than others, experience the impacts of changing economic conditions which impact agricultural markets.” That is a traditional but overly simplified view of how agricultural markets function. More realistically, the closer agribusiness firms are to farmers and ranchers, the more likely they are to experience the same price, income, and financial consequences which affect producers. The experience of agribusiness firms which dealt directly with producers during the past 10 years illustrates this point. The financial stress experienced by agricultural producers in the early 1980s had direct consequences for agribusiness retailers in rural communities. For example, fertilizer sales declined, sales of new farm equipment dropped dramatically, as did the sales of new pick-up trucks and automobiles. Construction of new farm homes came to a halt. Rural bank failures approached record levels. Accounts receivable for fertilizer, feed, and ag. chemical dealers rose sharply as did bad debt write-offs.

The 1985 Food and Security Act and programs to restructure farm debt caused the second half of the 1980s to be more tolerable. Target prices, deficiency payments, CRP programs, and CCC grain storage payments benefitted both farmers and agribusiness retailers. Long-term debt was reduced by producers and agribusiness retailers. In fact, record or near record earnings were realized in the Nebraska retail grain and farm supply industry during 1987 and 1988, largely due to grain storage income.

By the late 1980s, the farm economy had begun to change again. Drought conditions which became progressively worse in Nebraska by 1989 caused grain prices to improve and government payments to decline. It also began the liquidation of CCC grain storage stocks and associated storage income. By late 1990, grain storage had all but disappeared and Nebraska grain elevators were divided into the “haves” and the “have-nots.” The “haves” include those elevators which were able to successfully substitute merchandising margins for lost grain storage income, including elevators which realized only incidental storage income in the 1980s. Location, trainload rail rates, market intelligence and capable merchandisers were key distinguishing characteristics. Lacking these advantages, the “have-nots” are struggling to cover operating expenses.

The outlook for 1992 suggests further reductions in average earnings for the retail grain and farm supply industry. Lack of moisture in July and August 1991 has led to a short fall harvest, particularly in dryland areas of the state. A sharp reduction in fed cattle prices and fewer government checks in the mailbox have combined to further limit cash flow of farm customers. Retailers are experiencing increases in accounts receivable financing and slower payments. Some inland grain terminal facilities have been closed in response to lack of demand for storage space, including seven elevators owned by Union Equity Cooperative Exchange, headquartered in Enid, Oklahoma (none of the seven are located in Nebraska).

Competitive pressures in the industry coupled with a preoccupation over market share has led to minimal pricing margins on farm supplies including feed, fertilizer and ag chemicals. In some trade areas pricing margins on grain are approaching zero, with merchandisers hoping to recover five cents per bushel or more through basis improvement on hedged positions. During 1992, the industry will need to address the realignment of farm supply margins to match the cost of doing business. This is an aftermath of post grain-storage income which has not yet been dealt with.

Low pricing margins, access to competitive grain merchandising, short crops, and resulting financial stress will continue to drive the retail grain
Joint ventures, marketing agencies in common, franchising, leases, rental agreements and management contracts are strategies which will be explored as ways of addressing the challenges of 1992 while maintaining the identity of locally owned agribusiness firms. Change is a part of the competitive business environment. Rural communities and their agribusiness firms are increasingly vulnerable to these changes. The trend toward fewer but larger retail agribusiness firms parallels the trend of fewer but larger farms and ranches. The trends are a response to the same set of conditions.
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