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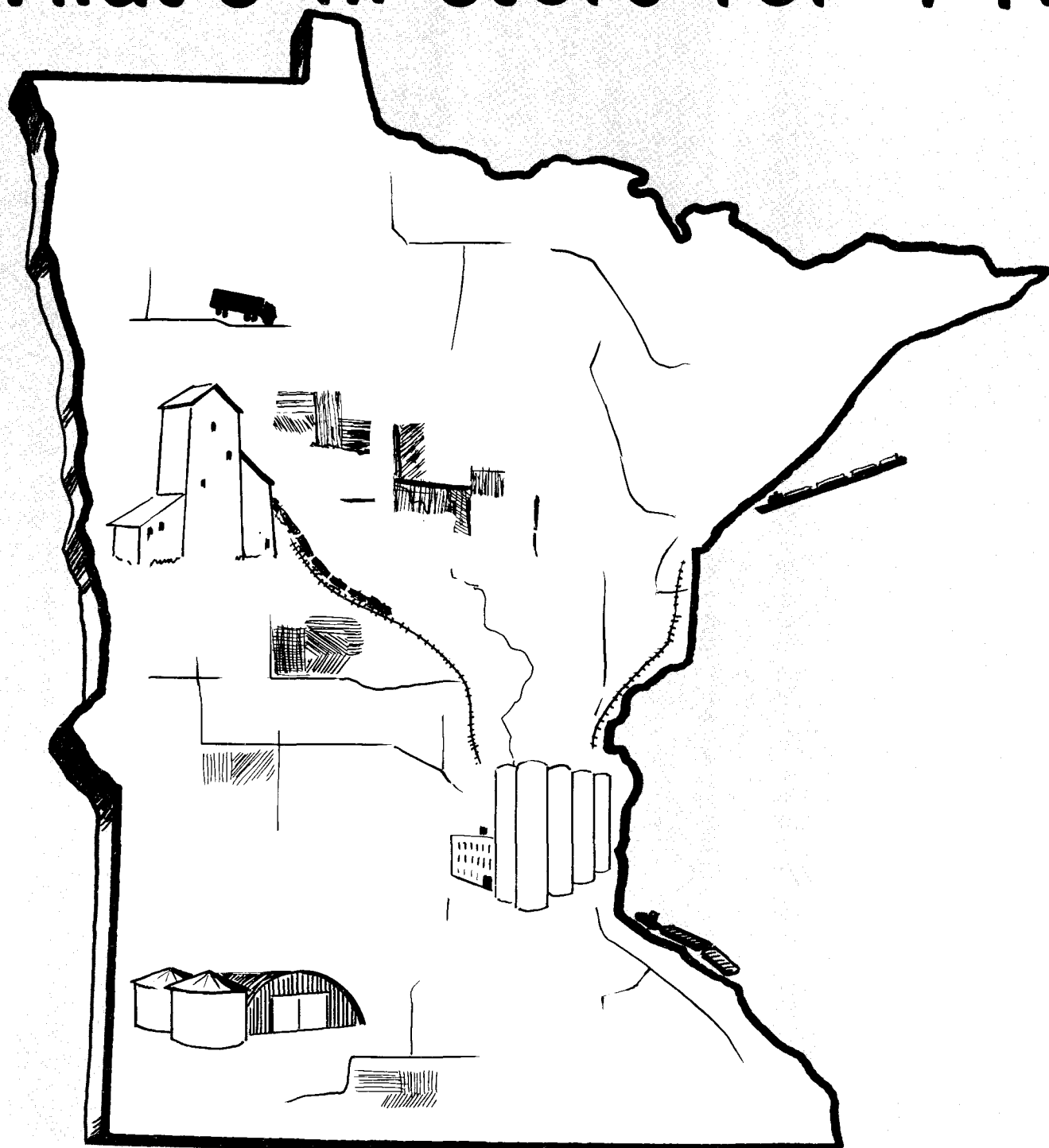
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What's in store for '74?



1974 AGRICULTURAL OUTLOOK

DEPARTMENT OF AGRICULTURAL AND APPLIED ECONOMICS
AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF MINNESOTA

AGRICULTURAL INCOME REVIEW

A year ago we projected record farm incomes for the 72/73 market year. The record has materialized, but at a much higher level than anyone anticipated because of soaring farm prices.

The kick-off for the large spiral in farm prices came with the massive Russian wheat and feed grain purchases announced last fall. These were necessary because of a poor Soviet crop (down 7 percent from 1971) coupled with a policy decision to maintain meat production for the Soviet people. And, because of unusual weather patterns, 1972 grain supplies were also down in many other parts of the world -- in India, Asia, Central Africa and Australia. Total world production, exclusive of China, of the six major grains -- wheat, rye, rice, corn, barley and oats -- was down 4 percent from 1971.

Then, the anchovies disappeared from the Peruvian fishing waters. Fishmeal from this little fish usually provides the major competition for U.S. soybean meal in world trade. The demand void left by the shortage of fishmeal, the reduced Russian sunflower crop and reduced peanut crops in India and Africa jumped soybean orders and prices to levels that resulted in partial U.S. government embargoes on further orders for the 1972 crop in an attempt to contain rising U.S. livestock production costs.

On the demand side, real incomes were rising -- in both developed and developing countries -- at 3 to 4 percent per year. As incomes increase, more protein and higher quality protein is desired. This real demand coupled with short supplies and with universal inflation, drove commodity prices to unprecedented levels.

Dollar devaluations in December of 1971 and February, 1973, have helped foreign buyers to compete more vigorously for U.S. farm commodities. Thus, although soybeans in March were 68 percent higher priced in the U.S. than in May of 1971, Japan buyers were paying only 23 percent more because of the increased buying power of the yen relative to the dollar.

This unusually strong foreign demand coupled with growing U.S. demand is giving American farmers a record-shattering income year. Annual farm product sales in the January - June period were running at a rate of \$15 billion over year earlier levels. After allowing for increased expenses and reduced government payments, net income is running about \$5 billion over last year. This higher annual rate of net income will probably continue through 1973, giving farmers the largest year to year jump in net income ever recorded. This continues the trend of a more rapid increase in the earnings of farmers relative to the earnings of non farmers and should close the per capita income gap of farm people to about 90 percent of that of non farm people for 1973.

Five years ago this ratio was 74 percent and ten years ago it was only 64 percent.

As for consumers, it means that they will be paying almost 20 percent more for food than they paid in 1972. And the percent of disposable income spent for food will show a year to year increase for the first time in 15 years, up from the 15.7 percent expended in 1972.

Outlook for 73/74

Many of the same factors which caused high commodity prices in the first half of 1973 will carry forward into the next marketing year. The following table lists the major positive price factors on both the demand and the supply side.

Major Factors Behind Current High Commodity Prices

Demand factors

Continuing world economic growth
Rising per capita incomes in U.S.
Rising per capita incomes around world
Impact of second dollar devaluation
Speculation in commodity markets

Supply factors

Continued low level of fishmeal production
Low world carryover of grain stocks
Transportation problems
Concurrently low beef & pork production
Increased farm input costs

Uncertainties as to the size of the 1973 world crop have caused wide fluctuations in cash and futures grain prices this summer. Even if the crop is up significantly over last year, the current low stock position will insure that crop prices in the next 12 months will average as high as in the 1972/73 year. It will take a second good crop in 1974 to bring world grain prices back to a more normal level. And that level will be somewhat higher than in past years for U.S. farmers because of the lower value of the dollar and inflated production costs.

Livestock production will not increase very much in the next 12 months. Therefore the relatively high 1973 farm income level is expected to continue at least through mid-1974 for both crop and livestock producers.

Some Management Implications for 73/74

The unusually high current farm prices and incomes means that added management time needs to be spent in some areas that may have been treated routinely in the past. These include the following:

Tax management - Most farmers will be in higher tax brackets than even before. Consideration needs to be given in the next few months to income shifting (delaying crop sales) and the economics of the purchase and ownership of grain bins, slotted floor (special use) buildings and machinery that qualifies for the investment tax credit as well as fast depreciation. Tax savings on 1973 income can help to substantially cut subsequent ownership costs on such investments. Income averaging will apply on many farms.

Buying - Possible shortages of fuel, fertilizer and other farm inputs suggest a continual watching of the situation and planning for needs well ahead of time. In particular, watch LP gas, ammonia based nitrogen and phosphate fertilizer supplies. Inventories of farm machinery are also short. Orders will need to be placed well ahead of required delivery. To purchase before needed does cost extra interest money, but may, under contract conditions, guarantee delivery and price. The true added cost is not the quoted interest rate on borrowed money; it is the interest rate less the effective state plus federal tax rate for the last dollar of taxable income. Thus, the after tax interest cost will be cut by 30 or more percent from the quoted interest rate for many Minnesota farmers this year.

Selling - Expected price volatility makes this a good year to consider forward pricing and price averaging as well as requiring a close watch of the market generally. Further, transportation "bottle necks" suggest making advance selling arrangements to assure a specific market channel at the desired time of sale.

Harvesting and Feeding - Higher prices for corn, protein, and dryer fuel suggest rethinking normal harvesting, handling and feeding procedures. Higher grain and protein costs may dictate reformulation of livestock rations. Higher dryer fuel costs (and short supplies) may dictate feeding high moisture corn, storing partly dried corn, selling some wet corn, and delaying harvest for a short time. At high price levels, moisture discounts sometimes lag behind increased shrinkage and drying costs.

Dairy and beef feeders should calculate the trade off between corn silage and corn grain. Corn silage gives slower rates of gain but higher energy production per acre, meaning more total production of feed and lower feed costs. Corn grain gives a less costly harvest (as wet corn), faster gains and less interest

on cattle costs. With corn grain over \$1.50, higher corn silage rations will be more economical for most cattle feeders. Consider adding urea or anhydrous ammonia to corn silage. And, corn refuse can significantly decrease beef cow feed costs when hay is expensive. In general, it's a year for calculating "least cost" rations which may imply slower gain rations with less purchased protein in some circumstances.

Earl I. Fuller
Paul R. Hasbargen

FEEDGRAINS

AT A GLANCE: Although the 1973 corn crop looks large, carryover stocks are down and 1973/74 use will likely exceed production. Prices will likely be strong in the marketing year. It's likely that the Minneapolis No. 2 price range will be \$2.00 - \$2.25 per bushel during the first half of the marketing year, if the 1973 crop is at the August 1 estimate of 5.66 billion bushels. If crop size is close to 6 billion bushels, price will likely be about \$1.50. If crop size is lower than the August 1 estimate, price will likely be shaped by government export policy decisions.

The U. S. had a record supply of feedgrains in the 1972/73 marketing year. It also had record high feedgrain prices during the year. So was the "law of supply and demand" repealed? No, not at all. And there is good evidence that demand is inelastic for both relatively high and low supplies. For many years it was fairly clear to most observers that when supply is high relative to use (or demand) there is little inclination to buy more, no matter how low the offered price goes. The last marketing year provides evidence to the truth of the corollary; as supplies get tight relative to use, buyers will, if possible, bid up prices in an attempt to maintain consumption. In case we needed a reminder, 1972/73 also showed evidence that the world grain market is important to the U. S.

Because corn is the dominant feedgrain in Minnesota and in the U. S. market, it will receive most attention here. Remember that oats and fed barley markets react sympathetically to corn market developments.

CORN

1972/73 Review:

Production was just under the record 1971 crop of 5,641 million bushels. But higher beginning stocks resulted in a record high U. S. corn supply of almost 6.7 billion bushels. At the beginning of the year the market looked moderately strong. Prospects for livestock numbers were high, promising good feed use, and export prospects looked fairly good.

Relatively high livestock prices were expected to encourage livestock and poultry production, which in most years accounts for 75-80 percent of corn consumption. Concurrently, world grain supplies were a bit short and the USSR had made a commitment to buy at least \$750 million worth of wheat and feedgrains in three years. Furthermore, there were corn harvest problems leading to final crop

FEEDGRAINS: Supplies, distribution and prices

Marketing year 1/	Supply		Imports 2/	Total	Distribution					U. S. Farm price
	Carry- over	Product- ion			Domestic Use			Exports 2/	Total Use	
					Feed	Food Industry and seed	Total do- mestic			
-----Million Bushels-----										
CORN										
1970	1,005	4,152	4	5,161	3,581	396	3,977	517	4,494	1.33
1971	667	5,641	1	6,309	3,978	409	4,387	796	5,183	1.08
1972	1,126	5,553	1	6,680	4,240	415	4,655	1,250	5,905	1.60
1973	775	5,661	1	6,437	4,346	423	4,769	1,125	5,894	
1974	543									
GRAIN SORGHUM										
1970	244	684	---	928	684	10	694	144	838	1.14
1971	90	876	---	966	692	9	701	123	824	1.05
1972	142	822	---	964	691	8	699	190	889	1.40
1973	75	946	---	1,021	733	8	741	200	941	
1974	80									
OATS										
1970	499	917	2	1,418	781	102	883	18	901	.62
1971	517	881	4	1,402	738	99	837	24	861	.60
1972	541	695	3	1,239	703	98	801	24	825	.72
1973	414	708	2	1,124	682	97	779	40	819	
1974	305									
BARLEY										
1970	236	416	9	661	289	139	428	78	506	.97
1971	155	464	15	634	266	142	408	51	459	.99
1972	175	423	14	612	234	148	382	66	448	1.20
1973	164	430	10	604	227	152	379	80	459	
1974	145									
TOTAL FEEDGRAINS										
Million Tons										
1970	48.6	160.1	.4	209.1	138.9	16.3	155.2	20.7	175.9	---
1971	33.2	207.7	.5	241.4	149.0	16.7	165.7	27.3	193.0	---
1972	48.4	199.8	.4	248.6	154.8	17.0	171.8	42.3	214.1	---
1973	34.5	206.7	.3	241.5	154.5	17.3	171.8	39.7	211.5	---
1974	30.0									

1/ Beginning October 1 for corn and sorghum; July 1 for oats and barley.

1972/73 preliminary; 1973/74 based on August Crop Report and prospective demand.

size and quality uncertainties. And crop size for other feedgrains was down appreciably.

What finally happened in the marketing year was beyond our experience and most expectations. Livestock consumption of corn is estimated to be up 6-7 percent, despite an apparent actual decline in livestock numbers. This is due in part to a reduction in feeding of other feedgrains and wheat; and perhaps also to lower feed efficiency brought on by poorer crop quality, bad winter and spring weather for livestock, the ban of DES in cattle feed, and sharply higher protein supplement prices. While tight protein meal supplies and higher prices may have resulted in more feedgrain fed per animal unit, it also resulted in reduced numbers of livestock and poultry on feed. Ultimately, the high protein prices may have caused a cutback in total domestic corn consumption.

But the export market was the biggest development in corn utilization. Currently, 1972/73 exports are estimated to be 1.2 to 1.3 billion bushels. This is about 60% above 1971/72 exports and more than double 1970/71 exports. It is estimated that 13% of the 1972/73 Minnesota feedgrain supply was exported.

About half the increase in corn exports went to USSR and the People's Republic of China. The other half of the increase went to traditional customers. There are a number of reasons for the export increase. The USSR is said to be firmly committed to enhancing the dietary level of its people. Its grain production was down 15-20 million tons last year, forcing either substantial imports or a change of plans. It opted for trade. There were also smaller crops in other areas. World grain production in 1972 is estimated to have been 798 million tons -- off about 5% from the preceding year. At the same time, world demand for livestock and poultry products has been increasing sharply. Both world population and incomes are rising. People want and can buy more animal proteins. This requires feedgrains. Lower world feedgrain production meant increased export demand for U.S. feedgrains. Meanwhile the protein meal shortage probably resulted in higher feedgrain feeding rates. For much of the crop year U.S. corn was a good buy relative to protein meals and other grains.

At the same time, the U. S. dollar was being devalued and some other currency values were going up. Currency re-evaluations moderated the rising export price of U. S. corn. Comparing May 1971 and February-March 1973, the dollar price of our corn in Japan was 21% higher but the cost in Japanese yen was 11% lower. In Italy the dollar price comparison was 25% higher, while the Italian lira price was only 16% higher. Furthermore, 1972/73 was a year of inflation and relative currency instability. Undoubtedly corn was a relatively attractive commodity to exchange for currency under these circumstances.

1973/74 Prospects:

A. Supply -

Corn stocks going into the new marketing year are estimated to be 750 to 800 million

bushels - about a 7 week supply at current use rates. Production is still uncertain, but USDA's August 1 estimate was 5,661 million bushels. Planted acreage is estimated to be 71.3 million, with an anticipated 61.5 million acres for grain harvest. August 1 projected yield was 92.1 bushels per acre. Trend yield would be about 94 (producing 5.78 billion bushels). Yield in 1972 was just under 97 bushels/acre. The late-planted 1973 crop is causing much uncertainty about yield. In past years, late-planted corn crops have yielded very well. But there seems to be particular concern this year. If the 5.66 billion bushel crop materializes, total supply will be about 6.4 billion bushels -- 4% under last year.

B. Utilization -

According to current livestock and poultry projections, animal unit numbers will be up about 2-1/2% in 1973/74. This is about 5% less than earlier projections, chiefly because of lower hog farrowings and reduction in poultry output. At 1972/73 feeding rates, domestic livestock and poultry would require just over 4,300 million bushels of corn. Adding a trend increase for other domestic uses implies a total domestic consumption of 4.7 to 4.8 billion bushels. Exports are projected to be 1.1 to 1.2 billion bushels. Commerce Department weekly surveys show over 1.1 billion bushels already committed for export delivery. At these rates total corn utilization would be 5.8 to 5.9 billion bushels. Carryover stocks would be down 500 to 600 million bushels.

C. Pricing the 1973 Corn Crop -

Corn utilization projections imply strong corn demand in 1973/74. Stocks will be drawn down to their lowest level in years. With low carryover stocks, rather small production and/or use changes may have a substantial impact on price. Until the 1973 crop is in, changing crop estimates may appreciably affect price. Throughout 1973/74 changing domestic feeding and export estimates will likely cause price changes. Foreign crop developments and export restrictions in 1973/74 could greatly influence effective domestic supplies and price.

In mid-August, the Chicago December futures corn price has been over \$3.00/bushel for several days. And 10¢ daily price changes (the trade limit) have become common. A year ago an analyst predicting such a market would scarcely have been believed. It is difficult to make selling decisions in such a market.

Normally, it is useful to make price level forecasts for season average prices, indicating general tendencies, for the market. Analytical tools which have been helpful in the past point to a 1973/74 price average about 10¢ above 1972/73 (which is about \$1.70, basis Minneapolis). Some analysts are expecting corn price to average out at around \$3.00/ bushel for 1973/74. But price level forecasts are not too helpful for decisions in a volatile market.

When making price decisions for the 1973 crop, several guidelines might be useful.

Feed Concentrates and Grain consuming Animal Units

Item	Unit	Marketing Year				
		1965-69 Average	1970	1971	1972 ^{1/}	1973 ^{1/}
Supply of all concentrates	Mil. tons	252.8	251.2	284.8	286.5	281.4
Concentrates fed ^{2/}						
Feedgrains	"	132.1	138.3	149.1	154.8	154.5
Wheat	"	4.6	7.2	8.5	4.0	5.0
Rye	"	.3	.4	.5	.5	.5
Byproduct feeds	"	32.2	34.5	34.4	33.5	34.0
Total	"	169.2	180.4	192.5	192.8	194.0
Grain-consuming animal units	Mil.	111.3	117.5	117.0	115.6	118.4
Concentrates fed per animal unit	Tons	1.52	1.54	1.65	1.67	

^{1/} Based on August 1973 indications

^{2/} Total quantities fed, including domestically produced and imported grains and byproduct feeds; does not include non-protein nitrogen (urea).

Grain-consuming Animal Units

Item	Marketing Year						
	1965-69	1970/71	1971/72	1972/73		1973/74	
	Average			forecast		projected	
-----Million units-----							
				Feb.	June	Feb.	June
				<u>7</u>	<u>27</u>	<u>7</u>	<u>27</u>
<u>GCAU's</u>							
Dairy cattle	16.2	13.0	13.0	12.8	12.8	12.6	12.3
Cattle on feed	23.0	25.0	27.2	28.3	28.3	30.2	30.1
Other cattle	6.2	6.9	7.0	7.5	7.5	7.8	7.9
Hogs	34.5	39.3	36.5	37.0	34.7	39.6	35.1
Poultry	29.6	31.4	31.5	31.6	30.5	31.9	31.2
Other	1.8	1.9	1.8	1.8	1.8	1.8	1.8
Total	111.3	117.5	117.0	119.0	115.6	123.9	118.4

1. Although present prices are relatively high, feedgrain demand is also high and total supplies will not be so burdensome as to severely depress prices unless the 1973 crop is sharply above the August 1 projection. Since demand is inelastic, prospects of a shorter crop could push prices higher.
2. The market will be affected by a number of developments which are now only conjectural. So decision making is something like figuring the odds in a game.
3. Experience does show that unfavorable market news causes price to drop the trading limits for several successive days. This can be disconcerting and costly but price may recover the next day.
4. As in the other grain markets, some price averaging will be most satisfactory for most corn sellers. This means sell some when you think it is near the upper end of an interim trading range, but don't sell it all and don't panic when it plummets for a few days.
5. Keep informed on market conditions and keep price charts.
6. Since export demand is a big factor, corn accessible for export will be priced higher than inaccessible corn. So you may need to explore for unusual price differentials.
7. At high price levels and interest rates, the cost of holding grain skyrockets. At \$3.00 corn and 8% interest it costs 12¢/bushel to hold it 6 months. It costs 9¢ in shrink to dry it from 15.5% to 13% moisture for extended storage. The average seasonal corn price rise is about 15¢ per bushel in Minnesota. So you may want to re-figure to decide whether to stick to a usual storage and marketing pattern.

OATS

Oat supply for 1972/73 was 1,239 million bushels. About 7/8 or total use was for domestic livestock feeding. Exports took less than 2% of the supply. Use was higher than production, and carryover was cut by 130 million bushels to 414 million. Of this amount, over 145 million bushels was CCC owned. About 94% of uncommitted CCC feedgrain inventory is oats.

Supply for 1973/74 is estimated to be about 1,124 million bushels, with an estimated 1973 crop of 708 million bushels. Although exports are expected to be nearly double last year, domestic use may be down slightly. Total use is projected to be about 100 million bushels larger than the crop, drawing stocks down

to about 300 million bushels.

Oat price changes will likely closely follow corn prices in 1973/74. They will likely average higher than in 1972/73, but are likely to be quite volatile.

BARLEY

Barley use in 1972/73 was down 3% as feeding dropped by more than the increase in exports. Domestic food industry use continued its moderate upward trend, and took nearly a fourth of the total supply. Prices have been strong, now running more than double a year earlier. Stocks going into 1973/74 are cut about 6% from a year ago.

The 1973 barley crop is estimated to be 430 million bushels. Total supplies are about 604 million bushels. Domestic feed use is projected to drop slightly, food industry use will be up, and exports may gain 10-15%. At those levels, use would again exceed production.

Barley prices have been closely following the corn market and will likely continue to do so in 1973/74, although the malting industry is comprising more of the market. Prices will likely average above 1972/73 and will likely be subject to substantial smaller movements in the next few months.

Willis E. Anthony

WHEAT

A T A GLANCE: Export developments will dominate action in the 1973/74 wheat markets, as they did in 1972/73. Price will likely continue quite strong through at least the early part of the year. Although high export anticipations are now bid into the market, prices will likely remain above \$3.50/bushel. Producers with stored wheat might find it advisable to sell at several times through the year to reduce price risk.

As this is being written (in late August), Minneapolis September wheat futures price has descended from \$5.00/bu. Daily price changes of 20¢ are common. Wheat prices in Minneapolis shot up rapidly during July and August. The price of No. 1 DNS - 13 protein wheat increased from \$2.60 per bushel on June 28 to \$4.96 on August 14. A year ago similar wheat was a shade under \$2.00, a 05¢ daily price change was a big deal, and people were struck by what at the time was looked on as the "dramatic" impact of the USSR wheat sale. Only one thing seems to be perfectly clear -- the perspective of analysts will never be the same. Selling wheat at the optimum price in 1972/73 was not an easy task. In 1973/74 it may be even more difficult.

1972/73 Review:

Export demand was dominant in the 1972/73 wheat market. On July 8, 1972, a United States - USSR trade agreement was announced. It extended normal credit for commercial U. S. grain exports to the USSR and it committed the USSR to \$750 million worth of U. S. grain imports over a three-year period. USSR buyers began immediately to buy grain from U. S. private exporters. In early September an announcement came that the People's Republic of China was also buying wheat (for the first time in many years). Later, word was out that dry weather had sharply cut India's grain production, and reduced the supply of Southeast Asia grain exporters. Crop reports from Australia grew more pessimistic. USSR winter wheat plantings got off to a slow start. World protein supplies were low and prices high. Feedgrain supplies became tighter. Demand for all export grains grew quite strong.

Meanwhile, devaluation of the dollar made U. S. prices relatively cheaper to our principal foreign buyers. For example, between May, 1971, and February-March, 1973, the dollar price of wheat in Japan rose 52%, but currency revaluations made the effective cost increase only 11%. Fact, hearsay, conjecture, speculation and psychology all played a role in generating higher wheat prices in a nervous market. Pricing problems were compounded by transportation problems, making accessible wheat more valuable than inaccessible wheat. Hence, price differentials between markets were abnormally high.

Present estimates are that U.S. harvested 1,545 million bushels of wheat in 1972. Added to the 863 million beginning stocks, the U.S. had over 2,400 million bushels of wheat to supply for the 1972/73 marketing year. This was the largest supply in the last 10 years.

Export movement was essential in clearing the market at strong prices. At 1,189 million bushels, wheat exports were nearly double a year earlier. Most were commercial exports for dollars. Domestic food use of wheat, at 529 million bushels, was consistent with consumption trends in the past few years. Feed use of wheat, estimated at 201 million bushels, was down from 1971/72. Hence, about half of the total wheat supply, or the equivalent of three-fourths of the 1972 crop was exported. A year earlier exports had taken about one-fourth of the supply.

Supply and Utilization of all Wheat by Marketing Year*
1965-74

	Average 1965-69	1970/71	1971/72	1972/73	1973/74 Projected
		--- -million bushels -----			
Beginning Carryover	626	885	731	863	428
Production	1,426	1,351	1,618	1,545	1,749
Imports	2	1	1	1	1
Total Supply	2,054	2,237	2,350	2,409	2,178
Food Use	515	519	526	529	530
Seed	66	62	63	66	75
Feed	128	187	266	201	175
Exports	705	768	632	1,189	1,100
Total Use	1,414	1,506	1,487	1,981	1,880
Ending Carryover	640	731	863	428	298

*Marketing Year: July 1 to June 30.

The hard red spring and durum markets are somewhat different from the market for all wheat. Hard red spring and durum had relatively less export movement in 1972/73 than hard winter and white wheats. Most of the wheat sold to the USSR was hard winter wheat.

Supply and Utilization by Marketing Year

	Hard Red Spring Wheat		Durum Wheat	
	1972/73	1973/74	1972/73	1973/74
		Projected		Projected
	-----million bushels -----			
Beginning Carryover	275	166	69	37
Production	274	322	73	82
Imports	1	1		
Total Supply	550	489	142	119
Domestic Use	184	180	40	42
Exports	200	200	65	70
Total Use	384	380	105	112
Ending Carryover	166	109	37	5

* Estimate.

Carryover of total wheat stocks at the end of 1972/73 was estimated at 428 million bushels. This is low compared with recent years, when there have been substantial Commodity Credit Corporation holdings. However, it is well to remember that before the rise of CCC stocks, 428 million bushels might have been viewed as an excessive stockpile. As long as exports are important, this level of stocks may be comfortable, or even tight.

1973/74 Prospects:

A. Supply -

The August 1, 1973 USDA crop report estimated that U.S. farmers would harvest over 1,700 million bushels of wheat in 1973 -- 11% over 1972. Stocks on hand were about half the amount at the beginning of the 1972/73 marketing year. Hence, total 1973/74 supply is estimated to be under 2,200 million bushels. This would be about 10% under last year.

Hard red spring production was estimated to be up about 18% but lower carryover stocks would leave total supply down 11%. Durum production was estimated up 13%, but total supply down 16%. Consequently, for both total U.S. wheat and for the classes of most interest to Minnesota farmers, 1973 production will not be up enough to replenish lower carryover stocks, leaving supplies for the 1973/74 marketing year lower than for the past few years.

B. Demand -

USDA analysts project total 1973/74 use to approach 1,900 million bushels. This would leave year-end wheat stocks substantially below this year's relatively low level. All this implies tight supply and strong prices. Use projections for hard red spring and drum are shown in the table. If projections are realized, hard red spring stocks would be down 33%, to 109 million bushels. Durum stocks would be down 86%, to 5 million bushels.

Although future utilization is an uncertain projection, the estimates in the tables appear conservative. Let's look at them by use categories. Domestic food use of wheat fluctuates very little from year to year, and shows an annual modest gain as population grows. Since per capita wheat consumption is declining, this gain will diminish with the declining U.S. birth rate. Seed use depends on acreage planted, and the 1974 government wheat program should result in more acres, requiring more seed. Feed use of wheat has grown quite large in recent years -- particularly in the west. For a time last year it offered relatively cheap protein in cattle rations. However, higher wheat prices and large grain sorghum production will likely cut wheat feed use this year. Total domestic use will likely be down in response to higher wheat prices.

Currently, exports are also expected to be down in 1973/74 - but not by much.

Exports will likely dominate wheat market developments this year, as last. Although shipments to the USSR may be down, India, China, North Africa and West Asia are areas where more exports are anticipated. Total world import requirements for 1973/74 are expected to be down by 150 million bushels. USSR imports may be down by 370 million bushels, imports may be up 220 million bushels. World demand is growing from increased population and higher incomes. It is not likely that other suppliers can expand exports in 1973/74. Canada will harvest about 600 million bushels -- up from 533 million in 1972, but down from earlier estimates of 700 million bushels. The Australian harvest is four months away and Australia has no wheat reserves. Argentina has embargoed wheat sales. Western Europe has been reluctant to sell their supplies. Hence, world demand for U.S. wheat is not likely to ease until the 1974 crop is made.

C. Pricing the 1973 Wheat Crop -

Faced with strong demand against rather tight supplies, what can be said about price? Prices will likely be strong. How strong? It's difficult to predict and pricing will be a tough job for the 1973 wheat crop. Most price analysis is based on historical relationships, and the market is at an uncharted level. Analysts for years have known that demand is inelastic. This means that a small change in world production causes a large change in price when carryover stocks are low. It also means that in years of uncertainty prices likely go very high when supply

looks short, and go very low when supply looks abundant. Thus, wide price fluctuations should be expected as different anticipations enter the market. This has been dramatically illustrated this year.

With tightness in world supplies, \$3.50 - \$4.00 may be minimum market prices to expect during the coming year.

When prices are rising the daily trading limit it is unwise to sell. When prices are falling the daily limit it's often impossible to sell. This means that some price averaging is probably the best strategy for most producers. This means:

1. Don't sell all the crop at one time.
2. Don't panic when the market falls for a couple of days.
3. Don't worry about the precise penny peak when the market is strong.
4. Don't fall asleep on the job and forget to follow market reports and information.
5. Don't forward contract more than you can deliver.

Willis E. Anthony

SOYBEANS

AT A GLANCE: Demand for U. S. soybeans and meal will be strong for at least the first half of the marketing year. Prices will likely be quite volatile -- at least until there is a firm estimate on crop size. Price could move lower in late 1973/74. Good pricing decisions will be difficult to make. Try to average price through a few sales moving through the season.

A couple of years ago some wag remarked that "there are no marketing problems \$4.00 beans wouldn't solve". After the past year's experience, there is probably little agreement with that observation! Selling "right" was a tough decision. It looks like it will continue to be for the next few months.

A year ago cash beans in Minneapolis were priced around \$3.00/bu. In late August, 1973, they are trading from \$8.00 to \$10.50. Recent daily cash price movements have been as much as \$1.25/bushel. This requires a difficult adjustment for both traders and the analyst.

1972/73 Review:

Total supply of soybeans for the marketing year is estimated to have been about 1,355 million bushels, up about 6% from the previous year. The 1972 crop, just under 1,300 million bushels, was up nearly 10%. Stocks on hand September 1, 1972 were the lowest in several years, amounting to only 22% of the record high stocks going into the 1969/70 marketing year. The growth in U. S. supply was just under the estimated annual average growth in world demand. So strong prices were to be expected, particularly in light of the harvest-time weather problems. Crop size was uncertain into early 1973, as many soybeans were still in the field.

On the demand side of the market, 1972/73 also had striking developments, most of them in international trade. There was a severe shortage of protein meals. A cutback in Peruvian fishmeal supplies, plus a cutback in other protein meal crops in India and West Africa left other world protein meal exporters with a million ton lower supplies than in 1972. At the same time, effective demand was growing through population and income gains. It is estimated that world markets could have taken at least 600 thousand tons increase in supply at past prices. Thus, world markets were facing a situation in which buyers wanted approximately 1.5 million tons more protein meal at 1971/72 prices. In this context, the market for the entire year was one of aggressive bidding for available supplies and price rose to ration supplies among buyers.

As though this wasn't enough for the market to digest, other ingredients also entered: devaluation, inflation, supply uncertainty, shortfalls in food and feed-grains and transportation problems. These are discussed elsewhere, and have received much press coverage, so only a passing reference will be made.

Western Europe and Japan are the largest customers for U. S. beans. The dollar has been devalued against the German mark by over 40% and against the Japanese yen by almost 40%. Between May 1971 and February-March, 1973, the dollar price of U. S. soybeans in Japan rose 68% and in Germany 52%. Because of changing currency values, the effective Japanese price rose only 23% and the German price 18%. Furthermore, because of inflation and currency uncertainties some currency holders may have exchanged dollars for commodities as a hedge against further devaluation. Soybeans may have been a better investment than gold.

In the face of a tight market situation, supply uncertainties accentuated price movements. Supply estimates kept changing. Final U.S. supply depended on weather conditions late into winter. Peru fishing was on and off with mixed reports throughout the season. For much of the year the market was, in effect, trying to ration unknown but short supplies.

Toward the end of the market year it began to look like price had not risen enough to restrict purchases adequately. There was concern by the government that domestic supplies were inadequate to meet domestic needs and export commitments. So a temporary embargo was placed on exports of soybeans and protein meals. This was followed by an order authorizing partial fulfillment of export contracts, and some curtailment of exports.

It is now estimated that out of the 1,355 million bushel 1972/73 supply, 825 million went to domestic crush and other uses, and almost 500 million were exported. Since substantial oil and meal were also exported, exports accounted for more than 500 million bushels of beans. It is estimated that about 2/3 of the 1972/73 Minnesota soybean supply was exported.

1973/74 Prospects:

As we enter the new marketing year, stocks are negligible, at 40 million bushels. This is less than two weeks supply at the 1972/73 average weekly disappearance of soybeans. The size of the 1973/74 crop is crucial for the market.

Of course, the size of the crop is always uncertain until it's in the bin. Acreage for 1973 is estimated to be up 23% from 1972 -- to over 56 million. On August 1, USDA estimated 1973 production would be up 20%, to 1,540 million bushels. If projected yield of 27.4 bu./acre materializes, 1973/74 soybean supply will be up 15-20%.

Present estimates are that domestic soybean crush will use about 800 million bushels of the crop, exports will amount to 600-650 million bushels, about 1 million will be needed for seed and other uses. Stocks at the end of the year will be at about the same minimal level as at the beginning.

The major demand force in the soybean market is again likely to be from the protein meal market. For the coming year, and well into the future, it appears that vegetable oil supplies will be abundant relative to demand at present price levels. Current soybean oil prices are extraordinarily high.

Demand for meal will likely grow at the rather rapid rate of recent years. Domestic livestock and poultry numbers will be up about 2-1/2%, requiring more protein meal. Again, the foreign market will require large quantities of U. S. soybeans and meal. World population will grow about 3%. Rising incomes will mean larger per capita demand for protein meal--mostly for animal feed but also for direct consumption. Dollar devaluation makes U. S. beans and meal relatively cheaper than they used to be. So world demand for protein meal will be strong although meal prices are now very high.

Competing supplies will also likely be higher in 1973/74. Brazil is showing sharp increases in soybean production and is investing in marketing facilities to handle and ship the crop. It's reasonable to expect another production increase in the spring of 1974. Peru fishmeal production probably won't get any worse than it was last year. There is some word that normal ocean currents have returned. This should mean fish again by mid-1974, but not as much as 1971 and 1972. Therefore, it now appears that there will be large export movement of U. S. beans and meal in 1973/74, at prices moderately lower than the last half of 1972/73.

Pricing the 1973 Crop:

Our analysis points toward 1973/74 season acreage prices 70¢ - 90¢ per bushel lower than in 1972/73 (about \$4.25/bu.) A consensus of most analysts would be in the \$5 to \$7 range. No prudent individual is likely to make projections more than halfway into 1973/74.

In normal markets this would be a useful piece of information and would be a signal to price a substantial portion of the crop at contract price levels at the time of this writing (about \$6.50). However, there has been a \$1.66 November contract price decline in the past week -- this approximately matches the price rise of the preceding week. In this kind of a market season average prices have little strategic meaning.

Analysis of market fundamentals leads to the conclusion that soybean prices are high and will likely be lower before the year is out. Recent performance of the

market is such that only a fool would say prices couldn't be higher next week.

In markets like this keep a few common sense guidelines in mind: (1) don't sell all the crop at one time -- price averaging might be more satisfactory, (2) keep abreast of the market (soybeans, meal, oil and crushing margins) so you know what's going on -- you'll be able to worry more intelligently and you may get a higher price, (3) don't panic when the market falls for a couple days, it may go up tomorrow, (4) be sure you're not relying on outdated market information and analysis -- in a volatile market, analysis is a highly perishable commodity, (5) don't forward contract to sell more than you can deliver -- selling \$6.00 soybeans might be profitable, but buying beans in at \$9.00 to fill a contract might be painful.

Soybean Acreage, Supply and Disposition

Item	Unit	1970/71	1971/72	1972/73	1973/74*
<u>Acreage:</u>					
Planted	mil. acre	43.3	43.5	47.0	57.2
Harvested	mil. acre	42.1	42.7	45.8	56.2
Yield per acre	bul.	26.7	27.5	28.0	27.4
<u>Supply:</u>					
Stocks, Sept. 1	mil. bu.	230	99	72	40
Production	mil. bu.	<u>1,124</u>	<u>1,176</u>	<u>1,283</u>	<u>1,540</u>
Total	mil. bu.	1,354	1,275	1,355	1,580
<u>Disposition:</u>					
Crushings	mil. bu.	760	721	735	800
Exports	mil. bu.	434	417	490	640
Seed, Feed, etc.	mil. bu.	<u>61</u>	<u>65</u>	<u>90</u>	<u>100</u>
Total	mil. bu.	1,255	1,203	1,315	1,540
Average U. S.					
Farm Price					
Received	\$/bu.	2.85	3.03		

*August 1973 estimate.

Willis E. Anthony

BEEF

AT A GLANCE: Demand for beef will continue to increase, running 6-8 percent greater in the next 12 months. Supplies will not be up that much, allowing fed cattle prices to continue above year earlier levels through mid 1974. But feeder cattle prices and feed costs will be sharply higher than last fall. Profit prospects appear very uncertain. Normal returns may be locked in by early contracting of fed cattle. But, risks are considerable that substantial losses can result if over priced feeder cattle are bought or if finished cattle come back on a depressed market.

Demand Conditions:

Demand for beef continues strong. As incomes rise, people want to buy more beef. For every 10 percent increase in a person's average disposable income his beef purchases can be expected to increase by 8 percent. The beef industry, therefore, has much to gain from the current increase in the real growth of the economy and the average take home pay of workers.

With an 8 percent increase in per capita disposable income this fall over a year ago, demand for beef will be up by more than 6 percent. During 1974 the potential increase will be less, because incomes are expected to rise at a slower rate as the economy cools off and employment grows at a slower rate.

Population is 1 percent greater than a year ago and the mix is changing. A real strengthening factor in the demand for meat is the fact that the large crop of war babies is now at the age when appetites for meat reach a peak. The change in the population mix plus the increase in population adds a 1.5 to 2 percent annual increment to beef demand.

Pork supplies will continue low in the year ahead. For the last half of 1973 market supplies will be running 3 percent below year earlier levels and for the first half of 1974 they will be up only slightly over early 1973. Resulting higher pork prices will add about 1 percent to the demand for beef this fall, but will be changing to a negative demand factor as 1974 progresses.

Cow beef and beef imports will continue in slightly greater quantities relative to a year ago. This increase plus increased poultry supplies will about wipe out the added demand stemming from lower pork supplies this fall. As 1974 progresses, total competing meat supplies will have a negative effect on beef

price changes.

The total demand shift will be about 8 percent this fall relative to a year ago, and, for the first half of 1974 it will be up about 6 percent. For late 1974, demand may be no greater than in late 1973 whereas beef supplies will be increasing.

Supply Potential:

The July cattle on feed report indicated that marketings of fed cattle would be 1 percent higher in the third quarter than they were a year ago. However, although July marketings were up 1 percent in the seven major feeding states withholdings prompted by the beef freeze may cut third quarter marketings to 4 percent below last year while increasing fourth quarter supplies. (See Table 1).

Table 1. Fed Cattle Marketings and Projected Marketings by Quarters, 23 States

Quarter	1970/71	1971/72	1972/73	Projected	
				1973/74	Percent Change
----- thousand head -----					
July - Sept.	6,360	6,592	6,900	6,600	-4
Oct. - Dec.	6,209	6,223	6,700	7,000	+4
Jan. - Mar.	6,231	6,435	6,650	6,800	+2
Apr. - June	<u>6,278</u>	<u>6,742</u>	<u>6,300</u>	<u>7,000</u>	+11
Total	25,078	25,992	26,650	27,400	
Yr. to Yr. Change	914	658	750		

Market weights are currently somewhat above year ago levels. This gap will probably continue while cattle prices drop off \$5 to \$10 from freeze levels this fall causing farmers to slow their marketings. The gap will disappear with improving beef prices in early 1974.

Given the above estimates of supply and demand, we expect that prices in the last half of 1973 will average significantly higher than in the last half of 1972.

However, heavier marketings, heavier weights, and consumer resistance to higher retail prices will probably drive choice beef prices to the mid forties before year end.

Marketings during the first two quarters of 1974 will depend in part upon placements during the last half of this year. Availability of feeders suggests that placements of yearlings this fall could be up substantially over a year ago. However, placements of cattle on feed this summer have been running 11 percent below last year -- suggesting that placements may be delayed throughout the fall until feeder and/or feed prices adjust more in line with fed cattle price outlook.

If fed cattle supplies develop as projected in Table 1 during the first half of 1974, prices will increase from fourth quarter lows and remain firm at levels higher than prevailed in January - June of 1973. Third quarter prices can't be expected to average over \$50 unless higher than expected feed prices continue to delay placements. Fed beef price could drop off from 1974 highs by as much as \$10 before the year is out.

Table 2 shows choice and good prices at South St. Paul for the past two years and projected prices based on previously discussed demand and supply projections. However, if the media nurtured "food shortage" scare has conditioned consumers to pay higher prices for meat, price levels will remain above those suggested by usual demand - supply relationships. Also, if feeder supplies are less than indicated by USDA numbers, the price outlook would be more optimistic.

Table 2. Choice and Good Steer Prices at South St. Paul and Average Quarterly Prices Expected in Coming Year, in Dollars per 100 Pounds

Month	1971/72		1972/73		1973/74	
	Choice	Good	Choice	Good	Choice	Good
July	\$32.36	\$28.84	\$38.07	\$34.50	\$48.72	\$44.57
August	33.07	29.06	35.58	33.52	55.68*	52.30*
September	31.27	29.26	33.55	31.54	<u>Projections</u>	
October	32.24	29.29	35.02	33.26		
November	33.29	29.89	33.81	32.46	46.00	44.50
December	34.03	30.81	36.39	34.29		
January	35.18	31.67	40.26	36.93	49.00	46.00
February	35.70	33.34	43.15	39.46		
March	33.90	32.25	44.31	41.26		
April	34.27	31.62	44.87	41.81	46.00	44.00
May	35.48	33.08	45.65	42.62		
June	36.40	34.18	45.65	43.40		
July-Sept.					49.00	46.00

For week ending August 18

Feeder Cattle Prices:

Table 3 shows how feeder prices have been moving up over the past two years. Are they at their peak now?

Supplies of yearlings outside feedlots is estimated to be up by more than a million head over a year ago. And current feed prices are at record highs, giving rise to feed costs in excess of \$30 per cwt. of gain. Thus, despite the favorable feedlot profits of the past year we expect that yearling prices will be forced down from current (mid-August) high levels.

The 1973 calf crop was up 4 percent with the beef calf crop up by 6 percent. (The Minnesota beef cow herd was up 5 percent over last year on July 1, to 625,000 head). But range conditions are good and so are the financial conditions of ranchers, putting them in a strong bargaining position. Thus, given high corn prices on new crop corn, cornbelt feeders will have a protracted tug of war with feeder producers in an effort to force down prices. The job, however, will be accomplished by January, with calf prices being off by as much as \$10 from the mid-August price reported below. Instead of the \$75 to \$80 paid in mid-August, calves may be purchased later this fall for less than \$70.

Table 3. Feeder Cattle Prices Per 100 Pounds, Kansas City.

Month	Choice Feeder Steers 600-700 lbs. ^{1/}			Choice Feeder Steer Calves ^{2/}		
	1971	1972	1973	1971	1972	1973
	Dollars			Dollars		
Jan.	\$32.20	\$37.92	\$47.33	\$36.18	\$41.50	\$51.95
Feb.	34.24	38.86	50.98	38.48	43.94	56.10
Mar.	34.26	38.64	54.01	38.17	44.69	62.72
Apr.	34.46	38.54	51.82	38.62	45.16	60.42
May	34.52	40.43	54.55	39.19	46.67	62.59
June	34.52	41.94	54.85	39.15	47.32	62.42
July	34.36	42.02	56.49	39.10	47.10	64.40
Aug.	35.18	42.07	64.20 ^{3/}	39.36	48.32	75.50 ^{3/}
Sept.	34.97	43.29		39.33	48.70	
Oct.	35.64	44.15		39.95	49.81	
Nov.	36.88	43.17		41.70	48.37	
Dec.	37.20	45.77		41.81	49.90	
Average	34.87	41.40		39.25		

^{1/} Prior to 1972 - 550-750 lbs.

^{2/} 400-500 lbs., prior to 1972 - 300-550 lbs.

^{3/} For week ending August 18

Profit Prospects:

Sharply higher feed and feeder cattle prices are tempering the profit prospects for the cattle feeder in the year ahead. These higher input prices along with typical resource requirements and projected market prices have been fed into one of our computer decision aids -- the results are shown on the following pages. *

A study of budget projections shows the following:

- (1) Profit prospects are very dim for cattle feeding in the coming season unless feeder prices decline from late August levels.
- (2) The risk of large losses are greater this year than they have been in the past decade.
- (3) The futures market (or packer contracts based on this market) may provide opportunities to lock in a positive return, or, at least, to avoid large losses in the year ahead.
- (4) Feeder and feed prices may decline enough this fall to allow above average returns to some lots of cattle.

Paul R. Hasbargen

* See budgets on pages 28 and 29. If a cattle feeder wants individual computer budgets to compare different feeding programs for his situation, he should contact his county agent.

UNIVERSITY OF MINNESOTA
 AGRICULTURAL EXTENSION SERVICE
 PROGRAM - BEEF

BUDGET FOR STEER YEARLING USING LIBERAL SILAGE RATION

	HEAD	CWT GAIN
PERFORMANCE:		
PURCHASE WEIGHT, LBS	650.	
SELLING WEIGHT, LBS	1150.	
TOTAL GAIN, LBS	500.	
AVERAGE DAILY GAIN, LBS	2.20	
DAYS ON FEED	227.	
VALUE PRODUCED:		
SALE VALUE AT \$ 48.00 /CWT.....	\$ 552.00	
PURCHASE COST AT \$ 62.00 /CWT	403.00	
GROSS MARGIN	149.00	\$ 29.80
FEED REQUIREMENTS AND COSTS:		
CORN 40.00 BU AT \$ 1.80	72.00	14.40
SILAGE 3.30 TON AT \$ 13.30	43.89	8.73
HAY .30 TON AT \$ 30.00	9.00	1.80
PROTSUP 2.30 CWT AT \$ 7.00	16.10	3.22
MINERAL .33 CWT AT \$ 5.00	1.65	.33
TOTAL FEED COST	142.64	28.53
OPERATING COSTS:		
INTEREST ON ANIMALS (3.0 PERCENT) ..	20.07	4.01
DEATH LOSS (.5 PERCENT)	2.13	.43
SELLING AND BUYING COSTS	9.00	1.80
OTHER OPERATING COSTS	6.00	1.20
TOTAL OPERATING COSTS	37.21	7.44
TOTAL FEED & OPERATING COSTS	179.85	35.97
BUDGETED RETURN FOR LABOR & FACILITIES.	-30.85	-6.17

RETURN PER HEAD FOR LABOR & FACILITIES WITH DIFFERENT PRICES.

SELLING PRICE/CWT	WHEN PURCHASE COST PER CWT IS:				
	58.00	60.00	62.00	64.00	66.00
44.00	-49.41	-63.13	-76.85	-90.56	-104.28
46.00	-26.41	-40.13	-53.85	-67.56	-81.28
48.00	-3.41	-17.13	-30.85	-44.56	-58.28
50.00	19.59	5.87	-7.85	-21.56	-35.28
52.00	42.59	28.87	15.15	1.44	-12.28

BREAK EVEN SELLING PRICES THAT WILL COVER FEED, OPERATING,
AND \$ 16.00 RETURN FOR LABOR AND FACILITIES.

PURCHASE PRICE/CWT	WHEN CORN PRICE PER BU IS:				
	1.60	1.70	1.80	1.90	2.00
58.00	48.50	49.02	49.54	50.06	50.58
60.00	49.70	50.22	50.74	51.26	51.78
62.00	50.89	51.41	51.93	52.45	52.97
64.00	52.08	52.60	53.12	53.64	54.16
66.00	53.28	53.80	54.32	54.84	55.36

BUDGET FOR STEER CALF USING LIBERAL SILAGE RATION

	HEAD	CWT GAIN
PERFORMANCE:		
PURCHASE WEIGHT, LBS	425.	
SELLING WEIGHT, LBS	1075.	
TOTAL GAIN, LBS	650.	
AVERAGE DAILY GAIN, LBS	1.90	
DAYS ON FEED	342.	
VALUE PRODUCED:		
SALE VALUE AT \$ 49.00 /CWT.....	\$ 526.75	
PURCHASE COST AT \$ 75.00 /CWT	318.75	
GROSS MARGIN	208.00	\$ 32.00
FEED REQUIREMENTS AND COSTS:		
CORN 40.00 BU AT \$ 1.30	72.00	11.08
SILAGE 4.00 TON AT \$ 13.30	53.20	8.18
HAY .40 TON AT \$ 30.00	12.00	1.85
PROTSUP 3.30 CWT AT \$ 7.00	23.10	3.55
MINERAL .45 CWT AT \$ 5.00	2.25	.35
TOTAL FEED COST	162.55	25.01
OPERATING COSTS:		
INTEREST ON ANIMALS (8.0 PERCENT) ..	23.90	3.68
DEATH LOSS (1.5 PERCENT)	5.17	.80
SELLING AND BUYING COSTS	8.00	1.23
OTHER OPERATING COSTS	10.00	1.54
TOTAL OPERATING COSTS	47.07	7.24
TOTAL FEED & OPERATING COSTS	209.62	32.25
BUDGETED RETURN FOR LABOR & FACILITIES.	-1.62	-.25

RETURN PER HEAD FOR LABOR & FACILITIES WITH DIFFERENT PRICES.

SELLING PRICE/CWT	WHEN PURCHASE COST PER CWT IS:				
	71.00	73.00	75.00	77.00	79.00
45.00	-26.07	-35.34	-44.62	-53.89	-63.17
47.00	-4.57	-13.84	-23.12	-32.39	-41.67
49.00	16.93	7.66	-1.62	-10.39	-20.17
51.00	38.43	29.16	19.88	10.61	1.33
53.00	59.93	50.66	41.38	32.11	22.83

BREAK EVEN SELLING PRICES THAT WILL COVER FEED, OPERATING,
 AND \$ 20.00 RETURN FOR LABOR AND FACILITIES.

PURCHASE PRICE/CWT	WHEN CORN PRICE PER BU IS:				
	1.60	1.70	1.80	1.90	2.00
71.00	47.91	43.50	49.10	49.69	50.29
73.00	48.77	49.37	49.96	50.56	51.15
75.00	49.63	50.23	50.83	51.42	52.02
77.00	50.50	51.09	51.69	52.28	52.88
79.00	51.36	51.96	52.55	53.15	53.74

HOGS

AT A GLANCE: Barrow and gilt prices averaged well above year earlier levels the first seven months of 1973. Hog slaughter will continue at about the same rate as last fall through the remainder of 1973. But unusually strong demand factors will hold prices well above year ago levels. Prices should continue around the \$42.00 mark through the first half of 1974. Price and profit conditions through the remainder of 1974 depend heavily on the level of feed grain prices, level of beef slaughter and prices, as well as expected moderate increases in hog slaughter.

Recent Market Developments:

Since 1965, hog prices and feeding ratios in the hog industry have averaged considerably above the ten year period 1955-64 and were extremely high in 1972 and 1973. (Table 1). At the same time it must be remembered that the non-feed costs of hog production have been increasing, making a somewhat higher hog-corn ratio necessary to maintain profitability.

Table 1. Hog Prices and Feeding Ratios

Year	Average Price Barrows & Gilts 7 Major Markets	Hog-Corn Ratio - U.S.
1973 (Jan. - July)	\$37.64	22.1
1972	26.76	20.0
1971	18.45	16.0
1970	21.95	16.3
1965-69	21.40	18.1
1960-64	16.13	15.0
1955-59	16.64	14.1

Commercial hog slaughter dropped below a year earlier in December of 1971 and has remained below year earlier levels since. It was down 9 percent in the first and second quarters of 1973.

Demand for pork has been much stronger in the first seven months of 1973 compared to a year earlier. Factors influencing the demand level have been smaller supplies of competing meats like beef and poultry, along with increased exports of pork and increased buying power in the form of a 9 1/2 percent higher per capita disposable income and a higher level of employment.

These changes in demand and supply factors do not entirely explain the run-up of hog prices in August to \$50-\$60 levels from June levels of \$38. However, when there were slow downs in marketings, a prevalent "shortage psychology" that developed as producers waited for price ceilings to be lifted and the consuming public was subjected to a stream of meat shortage reports by politicians, producer groups and others, this jump in prices is more explainable.

Prospects for the Remainder of 1973:

Demand for pork should continue to run well ahead of year earlier levels due to high priced competing meats, more people, higher incomes, and continued public concern particularly (whether justified or not) over red meat availability.

Based on USDA's June Report on Hogs and Pigs, June inventory indications are for hog marketings in July and August to be about the same as last year. However, July slaughter was down 7 percent probably due to delayed marketings in anticipation of a price ceiling removal. August slaughter is also lower than a year ago. September slaughter should then run a little above year earlier levels considering similar inventory numbers and the lag in slaughter in July and August. Uneven marketings will likely continue, however, until beef price ceilings are lifted on September 12. Prices will remain very strong during this period but as more normal marketing develops after September 12 prices will likely drop sharply from August levels.

Marketings during the October to December period should be close to year ago levels based on the June 1 inventory and farrowing plans. (Table 2). Prices should remain stronger than year earlier levels but could move under September due to the reactions of less panicky consumers and, with more beef available, seemingly ample red meat supply situation. The range of prices will likely be in the \$41 to \$45 vicinity.

Prices of feeder pigs will continue in the low to mid \$30's for the remainder of 1973.

Supply and Demand Outlook 1974:

If farrowings in the June to November period are reasonably close to the levels

indicated in the USDA's June 1 report, 1974's first six months marketings will be very similar to the first half of 1973. The September Hog and Pig report will shed more light on these estimates. Consequently we can look to no more than a 1 to 2 percent increase in pork supplies for the first half of 1974. (Table 2).

Demand again will be the big question mark. Clearly it will run above early 1973 levels as incomes continue upward and beef prices remain above year earlier levels. Whether or not the "shortage psychology" continues to function is anybody's guess but it will likely be cooled considerably by mid 1974.

Price and Profit Prospects 1974:

Barrow and gilt prices in the 7 major markets during the first half of 1974 are expected to run in the \$39 to \$43 range. Seasonally, we will likely see highest prices in January and February with some decline into April and May before peaking next July.

Profit prospects during the first half of 1974 depend on expected hog prices and input costs, particularly corn and feeder pigs. Feeding ratios should be around the 21-1 mark in the first half of the year. Feeder pig prices will remain strong reflecting the high hog prices and could strengthen if a wet corn situation with inadequate dryer fuel supplies materializes.

Using these projected feeder pig and finished hog prices with projected feed prices and typical resource requirements our computer decision aid was used to indicate profit prospects. The results are shown in the computer print-out.

If a hog feeder should wish an individual computer budget for his situation, he should contact his county agent and ask to run the FPIG Computer Decision Aid.

On balance, profit prospects will remain good for the average hog producer and excellent for the outstanding producers.

The price and profit situation for the last half of 1974 are heavily dependent on farrowings during the spring of 1974, the utilization of the 1973 corn crop, and the prospects for the 1974 corn crop. If spring farrowings increase by no more than 7 or 8 percent and corn prices settle down to \$1.40 to \$1.50 levels, profit prospects will remain excellent with \$35 to \$40 hogs after a near \$50 peak in July. If corn prices move in the opposite direction profit prospect will, of course, be reduced. However, 1974 does not appear to be the year for the serious minded hog producer to back away from expansion. Rather, the profit conscious producer will expand production in the coming year instead of waiting for the general number expansion in 1975.

Table 2. Quarterly Hog Marketings and Prices ^{1/}

Year	Quarter	Number Marketed in Millions	Average Price
1972	1	22.1	\$25.07
	2	22.9	25.05
	3	19.4	29.09
	4	21.8	29.28
1973	1	19.8	34.57
	2	20.4	37.66
	3	17.2 est.	46.65 est.
	4	20.9 est.	42.00 est.
1974	1	20.0 est.	43.00 est.
	2	21.5 est.	39.00 est.

^{1/} First quarter: December of preceding year through February
 Second quarter: March - May
 Third quarter: June - August
 Fourth quarter: September - November

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FEEDER PIG BUDGET AND RETURN TABLES

	HEAD	CWT GAIN
PERFORMANCE:		
PURCHASE WEIGHT, LBS	35.	
SELLING WEIGHT, LBS	230.	
TOTAL GAIN, LBS	195.	
POUNDS FEED PER POUND OF GAIN	3.80	
AVERAGE DAILY GAIN, LBS	1.59	
VALUE PRODUCED:		
SALE VALUE AT \$ 42.00 /CWT	\$ 96.60	
PURCHASE COST AT \$ 35.00 /HEAD	35.00	
GROSS MARGIN	61.60	31.59
FEED REQUIREMENTS AND COSTS:		
CORN 11.34 BU AT \$ 1.90	21.55	11.05
PROSUP40% 1.06 CWT AT \$ 12.50	13.30	6.82
MINERALS & ANTIBIOTICS	1.95	1.00
TOTAL FEED COST	36.81	18.88
OPERATING COSTS:		
INTEREST ON ANIMALS (8.0%)94	.43
DEATH LOSS (4.0%)	1.44	.74
SELLING AND BUYING COSTS	2.00	1.03
OTHER OPERATING COSTS	6.00	3.08
TOTAL OPERATING COSTS	10.38	5.32
TOTAL FEED & OPERATING COSTS	47.19	24.20
BUDGETED RETURN FOR LABOR & FACILITIES.	14.41	7.39

RETURN PER HEAD FOR LABOR & FACILITIES WITH DIFFERENT PRICES

SELLING PRICE/CWT	WHEN PURCHASE COST PERHEAD IS:				
	31.00	33.00	35.00	37.00	39.00
38.00	9.43	7.35	5.21	3.03	.94
40.00	14.03	11.95	9.81	7.68	5.54
42.00	18.63	16.55	14.41	12.23	10.14
44.00	23.23	21.15	19.01	16.83	14.74
46.00	27.83	25.75	23.61	21.43	19.34

BREAK EVEN SELLING PRICES THAT WILL COVER FEED, OPERATING
 AND \$ 3.00 RETURN FOR LABOR AND FACILITIES.

PURCHASE PRICE/HEAD	WHEN CORN PRICE PER BU IS:				
	1.70	1.80	1.90	2.00	2.10
31.00	36.37	36.36	37.35	37.85	38.34
33.00	37.30	37.79	38.28	38.78	39.27
35.00	38.23	38.72	39.21	39.71	40.20
37.00	39.15	39.65	40.14	40.63	41.13
39.00	40.08	40.58	41.07	41.56	42.06

RETURN FOR LABOR & FACILITIES AT DIFFERENT SELLING WEIGHTS

DAIRY

AT A GLANCE: Milk production during the year ahead is expected to again decline. If supplies were available, another increase in commercial sales would likely result. Thus, a substantial rise in milk prices will likely result, unless imports are permitted to increase. Government price support purchases are expected to be negligible, even at the new mandatory 80 percent of parity support level.

1973 Outlook vs Actual

A year ago many dairy economists expected that milk production in 1973 would continue to increase while commercial sales would decline slightly causing a substantial increase in government removals. It was also expected that milk prices would increase slightly to bring them above the 75 percent of parity support level.

What actually happened? Table 1 shows current estimates for 1973 and indicates that with the exception of increased prices none of the above took place. Sharply higher feed prices, poor quality forage in key producing areas and high cow slaughter prices are causing milk production to drop around 2-1/2 percent below 1972 levels. The reduction in cow numbers has accelerated and production per cow has been up only slightly compared with a normal 3 percent average increase.

Commercial milk and dairy product sales are showing another sizeable gain, with fluid lowfat and skim milk and cheese leading the way. Rising incomes, reduced unemployment and higher meat prices have triggered these gains. Declining output in the face of increased sales has, in turn, cut government removals sharply.

Strong milk prices (11 percent above 1972) are pushing up gross dairy income despite reduced marketings. However, sharply higher production costs, particularly for feed, will likely reduce 1973 net returns from the dairy enterprise below 1972 levels.

1974 Higher Milk Prices vs Increased Imports

Total milk production will likely show another decline in 1974. (Table 1). Milk output per cow may increase some because of higher milk prices, slightly lower feed prices and improved quality of feed supplies. However, this increase will probably not be enough to offset the decline in milk cow numbers caused by high slaughter cow prices and expensive feed which is encouraging close herd culling.

With rising incomes, low levels of unemployment and continuing high prices on competing products, the demand for milk and dairy products will likely be strong enough to cause another increase in commercial sales at present prices. However, estimates in table 1 suggest that even a substantial increase in import supplies will not permit an increase in sales. Note that this also assumes no government removals.

Therefore, it appears that the showdown between higher producer prices and increased imports will become more intensive. Demand will exceed expected production and present levels of imports. Thus, unless increased imports are permitted, substantial increases in milk prices will likely be required to ration the limited supplies. Milk production is increasing in Western Europe and their dairy stocks are again at high levels. Pressures to increase imports will likely be strong in 1974.

Thus, farm milk prices will likely continue well above 1972 levels as a compromise is reached between price increases and imports. The new farm bill provides a minimum 80 percent of parity support level for manufacturing milk through March 31, 1975. Gross income s of dairymen will likely increase as price increases outstrip reduced marketings. Production costs will remain high, but may moderate enough to permit improved net returns on the dairy enterprise relative to 1973.

Management Implications

- * For the good manager, longer term profit prospects in dairying continue to look good. The demand for dairy products is showing signs of improvement. Labor, capital and management requirements will keep supplies in bounds.
- * With high feed and slaughter prices careful culling should be practiced. However, if the barn is not full, then it usually pays not to cull, so long as the poorer cows carry some of the overhead costs.
- * With high protein and energy costs, care should be taken in balancing rations and in putting up the forage supply next year. Under present price conditions, urea can be used to good advantage.

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Table 1. U.S. Milk Supply and Disappearance, 1972, with Projections
for 1973 and 1974

	1972 ^{1/}	1973 ^{2/}	1974 ^{2/}
	- - - - - Billion Pounds - - - - -		
Production	120.3	117.0	115.0
Less Farm Use	3.6	3.5	3.4
Marketings	116.7	113.5	111.6
Beginning Commercial Stocks	3.6	3.5	2.7
Imports	<u>1.7</u>	<u>2.4</u>	<u>3.0</u>
Total "Supply"	121.9	119.4	117.3
Ending Commercial Stocks	3.5	2.7	2.7
Net Government Removals	5.4	2.2	0
Commercial Disappearance	<u>113.0</u>	<u>114.5</u>	<u>114.6</u>
Total "Disappearance"	121.9	119.4	117.3

^{1/} Dairy Situation, July, 1973.

^{2/} Estimates by the authors.

POULTRY

AT A GLANCE: Egg supplies are down and prices up; recently 48 percent above a year earlier. But so are feed prices. Orders for replacements are limited. Look for prices between 60¢ and 75¢ per dozen (large New York, wholesale) for the rest of the year and prices above 50¢ through 1974. Turkey numbers are up 1 percent. Storage stocks are low. Look for prices around 62¢ through 1973. Beyond that feed price uncertainty makes predictions difficult, but even with strong expected prices, profits may not hold at current levels.

As with other agricultural commodities in 1973-74, the usual tools of egg and poultry analysis are not sufficient to do the job this year due to a variety of special circumstances. Feed prices in particular are also above the levels within which outlook procedures were developed. Because feed ingredient costs and other costs are also so uncertain at present, and because they have such a strong influence on the volumes of egg and poultry production, adjustments are required.

Eggs

July egg prices in New York averaged in the low 60's; 25¢ above year ago levels. Indications are that egg purchases were 5 percent below year ago levels. Hens and pullets on farms were 6 percent less than in July, 1972.

Low egg prices in 1971 and 1972 resulted in a lower number of birds and lower total egg production. Lower production indicates, because of the cyclical nature of egg production, higher prices. At the same time the higher feed ingredient cost appeared to be sufficient to have held the egg-type chick hatch down from what would normally be expected under the circumstances. These factors plus the price freeze of early June, when prices should have been rising seasonally as well as cyclically, resulted in a cost-price squeeze sufficient to cause poultrymen to continue heavy culling and limit orders for replacement birds.

When ceilings were removed prices increased significantly; perhaps even enhanced by the lower stocks of frozen eggs, 48 percent above a year earlier.

These factors indicate that the New York large egg price will be in the 60¢ to over 75¢ range for the rest of 1973. It is, further, likely that these same quoted prices will not fall below 50¢ through all of 1974. Feed prices will also remain high over the next six months. This will have considerable bearing

on chick orders, molting, culling, and the resulting egg supplies as well as the profitability of egg production. Watch (see section on) feed grains supply and price prospects for clues on the possibilities of advance booking of feed if one is to maintain profit levels.

Turkeys

The turkey crop for the year since September 1, 1972, will likely be 130 million birds, 1 percent above last year. But the July 1 storage stock was 10 percent below a year ago. Given normal per capita consumption, quantity available and competing meat situations would indicate an increase in price. Given increased usage earlier and the shorter supplies of red meat and other poultry, there is good reason to expect a substantial increase in price over last year. In fact, prices were 17¢ over analysts' expectations given the supply and demand relationships for the first six months of 1973. In April through June the demand normal was about 22¢ a pound stronger than "normal". These same factors produce an estimate of about 62¢ a pound for the July through December, 1973, period for young hens 8 to 16 pounds, ready to cook at wholesale in New York City. The 1974 crop will be affected considerably by feed price relationships. With feed prices at new levels, turkey prices will also likely be at new levels.

Based upon expected feed prices found elsewhere in this bulletin the likelihood is that turkey producers will set more eggs in 1974 than in 1973. Further, the likelihood is that the price for turkeys will not decrease next year from 1973 levels. However, because costs will increase, profit prospects may not.

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