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# Minnesota AGRICULTURAL ECONOMIST



## AGRICULTURAL OUTLOOK FOR 1970-71

### Meat Animals

Kenneth E. Egertson and  
Paul R. Hasbargen\*

#### BEEF

There are more yearling feeders available than a year ago because slaughter increases have been small relative to the January 1 inventory increase. The supply of calves also is considerably higher than a year ago because of the increased calf crop and the decrease in calf slaughter. Each class appears to be up by about a million head. However, the inventory number revision that will be made next January may reduce these estimates somewhat.

The demand for feeder cattle is moderate. Feedlot capacity continues to expand rapidly in the southern plains. But profits on recent feedlot turns have not been high. And feeders are facing the prospect of higher feed grain prices.

In early August, feeder cattle were \$3-\$5 above 1969 levels, and by early September they were only \$1-\$2 higher. By November they may be at or below year-earlier levels. This would put Kansas City quotations at \$30-\$32 for choice yearlings and \$34-\$36 for choice calves.

#### Slaughter Cattle

During the first half of 1970, steer and heifer slaughter was up only 3 percent over 1969. Fed cattle marketings were up 5 percent. Nonfed steer and heifer slaughter was down, partly offsetting the increase in slaughter of fed cattle.

Weights were substantially above the light weights of a year ago. Thus, the increase in steer and heifer beef production has been relatively greater than the numbers increase. However, the increased supplies were taken at fairly strong prices due to increases in the demand for beef. Choice steers have brought more than \$30 since February. Except in May and June, prices were above year-earlier levels during the first half of 1970.

For the last half of 1970, slaughter supplies will be up about 4 percent over year-earlier levels. But slaughter weights will be the same or lower. Despite this rather modest increase in supply, slaughter prices probably will drift downward as pork and broilers provide stronger competition at the meat counter this fall.

Slaughter of steer and heifers in early 1971 is certain to be up again. Our feeder cattle balance sheet calculations indicate that there is a large increase in the number of yearling animals that will be available for feeding in the next 9 months.

Since placements during the first half of the year were only slightly larger than in 1969, a large increase can be expected in placements of heavier cattle this fall. Thus, relatively large increases—up to 10 percent—in fed cattle marketing could occur next spring.

Demand for beef will not be enough to take such a jump in supply without causing lower prices. Population increase plus its changing mix will require 2 percent more beef. But increased consumption of competing meats will erase that gain. Consequently, the only demand increase that will count will be that from increased per capita income.

The outlook here is not bright. As the administration continues to fight inflation, unemployment levels may climb and the nation's output will remain rather sluggish. The rate of inflation may be slowed to less than 5 percent, but real income gains will almost disappear. Thus, income gains and inflation will add only about 4 percent to the demand for beef.

Thus, if supplies are up 7-8 percent, even with lighter slaughter weights, prices would be about a dollar less than this past spring. That would put South St. Paul choice prices at less than \$30 and net sale prices to many Minnesota farmers at about \$28.

However, if inventory numbers are revised downward in the 5-year adjustment to census figures that will be released in early February, the price outlook picture will brighten. Current cattle-on-feed numbers and field reports on yearling availability do suggest that there may be somewhat fewer yearlings than the old inventory numbers indicate.

### Profit Prospects

If a net selling price (net after marketing costs) of \$28 is obtained next spring, yearling steers would have to be bought for less than \$30 in order to cover all feed and non-feed costs. Since they are not available at this price, we rate the current outlook for profits on yearlings as poor for the average feeder.

The profit prospects on calves do not appear to be much brighter. However, the odds of obtaining returns that will more than cover feed and other cash costs are considerably higher on calf feeding programs.

### HOGS

Demand for pork is expected to remain 2-4 percent above year-earlier levels for the remaining months of 1970. Total pork production is expected to be up 8-10 percent this fall, compared with last year. As a result, barrow and gilt prices this fall can be expected to drop 15-22 percent below a year ago, when prices averaged about \$25 per hundredweight (cwt.) on seven major markets. This would put prices in the range of from \$20 in early October to a low of below \$18.50 per cwt. in December.

### Situation and Outlook for 1971

The price and profit situation during the first half of 1971 will be heavily influenced by the 1970 fall pig crop (June-November). Most indicators point to increases in farrowings during this period. Intentions stated in the September 1 *Hogs and Pigs Report* indicated a planned expansion of about 15 percent from a year earlier. The hog-corn ratio during the breeding season for this farrowing period was approximately 21.6 to 1. Recent reduction in feeding ratios could dampen expansion plans to some degree.

We expect that sow farrowings this fall will increase by about 12 percent. Projecting this into the first 6 months of 1971 means increased pork supplies of 8-10 percent over a year earlier.

The demand for pork is not expected to increase materially in 1971 when compared to a year earlier. This prediction is based on a slight recovery in economic activity and stronger competition from poultry and beef at the retail counter because of higher supplies and lower prices.

Supplies of pork during the last half of 1971 will depend on whether or not hog producers follow the increases expected this fall with continued increased farrowings in the spring of 1971. Profits experienced this summer and fall will be much lower than a year ago, but not so low as to trigger a reduction in subsequent farrowings. So the 1971 early spring pig crop also will be up some from a year earlier.

### Price and Profit Prospects for 1971

Barrow and gilt prices on seven major markets during the first half of 1971 are expected to be well below the average price of \$25.50 per cwt. established over the first half of 1970. Based on our supply and demand estimates, a reduction in the average price level to a predicted range of \$19-\$20 is highly probable.

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Profit prospects for this period also will depend heavily on expected production costs, particularly corn prices. Feeding ratios could be down significantly if corn prices move into the \$1.20-\$1.30 per bushel range during the feeding period for hogs marketed in the first half of 1971.

The price situation during the latter months of 1971 will depend heavily on hog producers' actions in the late spring of 1971. If they expand only slightly or adjust farrowings downward in anticipation of lower profits in the period ahead, prices could hold near expected 1970 fall levels. However, if farrowings in the spring of 1971 move to 4-7 percent above year-earlier levels, significantly lower prices could develop in late 1971.

### SHEEP AND LAMBS

On January 1, 1970, sheep and lambs on U.S. farms and ranches totaled 20,395,000 head, down almost 1 million head from a year earlier. This declining trend dates back to 1960, when we had over 33 million head. A further decline of 2-3 percent is expected by January 1, 1971. Per capita lamb consumption in 1969 was very small (3.4 pounds) relative to other meats and probably will be about the same in 1970.

The 1970 lamb crop was estimated at 13.4 million head, a 2 percent reduction from a year earlier. Therefore, lamb slaughter in the first half of 1971 will be down from 1970 levels. This situation, along with only a moderate decline in demand, should be reflected in continued good lamb prices through the first half of 1971. The expected range on choice lambs in South St. Paul is \$25.50-\$27.50 per cwt.

### Lamb Feeding

Movements of feeder lambs into feedlots will be not only fewer, but also later than in 1970, due largely to good pasture conditions in sheep range areas. Choice feeder lamb prices on lambs going into Minnesota feedlots probably will range between \$27-\$29 per cwt., or about the same as a year earlier.

Production costs are expected to be above those of the 1969-70 feeding year. Profit prospects for the 1970-71 feeding year rank moderately lower than a year earlier.

### TURKEYS

While it is too early to predict the 1971 turkey crop, poult hatch was running well ahead of last year as of August 15, indicating the prospect for increased numbers in the year ahead. However, current feeding ratios indicate that a large expansion may be delayed.

With increased price pressure from pork, beef, and broilers in the year ahead and a good possibility of a larger turkey supply, we would anticipate turkey prices below 1970 levels in the coming year. In January through June 1971, New York prices could range in the 40-42 cent range for toms. As the industry moves more to year-round production and marketing of fryers in the year ahead, supplies of fryers will be up and prices will move below the tom market.

Profit margins in turkey feeding will be tighter in the year ahead, with prices down and feed costs higher.

## Dairy

Martin K. Christiansen and  
Kenneth H. Thomas\*

The decline in U.S. milk production that has been going on since the record year of 1964 appears to be bottoming out. Production presently is running slightly over a year ago (plus 0.3 percent), with total production for the year expected to reach at least 116.5 billion pounds, compared with 116.2 billion pounds in 1969 (table 1). This slight upturn has been caused by a marked slowdown in the rate of decline in cow numbers (1.6 percent between June 1969 and 1970, compared with a more normal 2½-3 percent) and a normal increase in production per cow (200 pounds).

When adjustments are made for reductions in farm use and beginning stocks, together with likely increases in total imports, the total "supply" appears to be up almost a billion pounds in 1970. Indications are that ending commercial stocks will be up slightly. However, sharp rises in retail dairy product prices and increased unemployment have caused a relatively sharp drop in commercial disappearance. So net removals made by government are showing a marked increase.

Milk prices for the first half of the year averaged about 5 percent above a year earlier. Expected increases in production during the second half of the year probably will hold prices close to last year's levels. Manufacturing grade prices have been close to new support levels (\$4.66 per cwt.) since April 1. They too are expected to rise seasonally, but less than in recent years. Cash receipts for the year are thus expected to be up 3-4 percent, due to both modest increases in production and the noted price increases. However, increased production costs most likely will leave net earnings near levels for 1969.

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## Prospects for 1971

Most factors point to a continued modest upturn in milk production. Favorable milk prices and a less restrictive labor supply situation both point to continued slower than normal declines in cow numbers. Production per cow also can be expected to increase at normal rates as favorable milk/feed price ratios continue. However, strong beef prices and the reluctance of individuals to subject themselves to the rigors of daily dairy chores are factors that are likely to moderate any production increases.

In table 1, we project a billion pound increase in the total "supply" of milk for 1971. Increases in production and beginning stocks account for 700 million pounds of the increase, while normal reductions in farm use account for the balance. On the disappearance side, we project ending stocks at 1970 levels and a continuing erosion of the amount passing through commercial channels. With supplies and demand moving in opposite directions, net government removals tend to grow rapidly in percentage terms. With a budget conscious administration, increases in the cost of these removals can not be ignored either.

This all signals the return of a support-price dominated dairy price outlook. Manufactured milk prices can be expected to hover near support levels. Price increases for fluid milk are likely to be more modest than in the recent past. These factors, together with a small increase in production, suggest only a modest increase in cash receipts in 1971.

Cost increases, however, probably will more than offset increased receipts, thus reducing net earnings from milk.

### A Longer-run Look

Turning to the longer-run outlook, it appears that during the next 3-5 years, milk prices may average near present levels. Modest increases in production, coupled with a decline in commercial utilization, point to increased government purchases. Therefore, for planning major changes in operations, the possibility of a slight shading of milk prices from current levels should be considered.

Table 1. United States milk supply and disappearance, 1969, with projections for 1970 and 1971

	1969*	1970†	1971†
..... billion pounds .....			
Production .....	116.2	116.5	117.0
Less farm use .....	4.4	4.1	3.8
Marketings .....	111.8	112.4	113.2
Beginning commercial stocks .....	3.9	3.8	4.0
Imports .....	1.6	2.0	2.0
Total "supply" .....	117.3	118.2	119.2
Ending commercial stocks .....	3.8	4.0	4.0
Net government removals .....	4.5	6.3	8.0
Commercial disappearance .....	109.0	107.9	107.2
Total "disappearance" .....	117.3	118.2	119.2

\* Dairy Situation, July 1970.

† Authors' estimates.

## Crops

Richard O. Hawkins and  
Willis E. Anthony\*

### FEED GRAINS

The September 23 USDA Crop Report projects the 1970 corn harvest at 4.2 billion bushels. It will be harvested from an expected 57,991,000 acres, up 6 percent from 1969. On September 1, yield was projected at 72 bushels per acre, down from 83.9 in 1969. When anticipated production is added to stocks expected on hand October 1, total corn supply for the 1970-71 crop year is 5,080,000,000 bushels (table 2). This is 600 million bushels smaller than the 1969 supply, but only slightly less than the average supply through the 1964-68 period.

This supply is not burdensome when balanced against expected utilization. Livestock numbers are moving up significantly. Larger feedlot placements, poultry hatches, and sow farrowings all point to high feed grain utilization.

Rate of feeding per animal unit may be down by 4-5 percent in 1970-71, since livestock/feed price ratios are not expected to be as favorable in the coming year. However, lower feeding rates are not expected to offset the increase in numbers. Also, sorghum, oats, and barley supplies will be lower. Therefore, the net change in corn utilization probably will be a 3-4 percent increase.

An important competitive factor to watch is potential wheat feeding. Although total wheat production was down in 1970, much of the current 2.2 billion bushel supply is available to be moved into feedlots if feed grain prices remain high. If corn prices remain at late September levels, wheat will become a competitive feed grain.

Corn exports in 1970-71 probably will be lower than in 1969-70. More feed grain is available from the southern hemisphere and U.S. corn prices probably will be higher. Also, many observers are pessimistic about restrictive attitudes toward world trade. So exports may be 475 million bushels.

Corn used in feed, industry, and seed will continue to trend upward at about 8 million bushels per year.

In total, we now project 1970-71 corn utilization to be 4,826,000,000 bushels. This is nearly 430 million bushels more than the indicated September 1 production. It means reduction in stocks by October 1, 1971, to 254 million bushels, an amount that is less than 1 month's supply at average rates of utilization.

This projected amount of stock drawdown has resulted in sharply higher corn prices. Normally, the season's price peak is reached in June-July, but in the marketing year following a short crop the price peak occurs much earlier. Thus, though harvest prices may be 25 cents per bushel over year-earlier levels, prices next summer may be quite similar to those of this summer. And, if the 1971 crop potential appears large at that

Table 2. Corn supply and utilization

Year beginning October 1	Supply			Utilization			
	Carry-over	Pro-duction	Total	Feed	Food, industrial, seed	Exports*	Total
..... million bushels .....							
1969 .....	1,113	4,578	5,692	3,844	393	575	4,812
1970† .....	880	4,200	5,080	3,950	401	475	4,826
1971 † .....	254	.....	.....	.....	.....	.....	.....

\* Includes grain equivalent of products.

† Based on mid-September 1970 estimates.

Table 3. Soybean supply and utilization

Year beginning September 1	Supply			Utilization			
	Carry-over	Pro-duction	Total	Seed, feed, etc.	Crushings*	Exports†	Total
..... million bushels .....							
1964-68 .....	78	911	989	52	552	256	859
1969 .....	324	1,117	1,441	61	725	415	1,201
1970† .....	215	1,133	1,348	67	772	415	1,254
1971† .....	94	.....	.....	.....	.....	.....	.....

\* Does not include oil and meal exports.

† Based on mid-September 1970 estimates.

time, corn prices will move down through the summer.

Minnesota grows substantial amounts of oats and feed barley. Moderate price increases of 3-5 cents over last year can be expected for these feed grain substitutes.

### SOYBEANS

Based on the September 1 USDA forecast, the soybean supply will be 6.5 percent less than a year ago, although production will again be up (table 3). Subtracting "pipeline" requirements, this is roughly the size of 1969-70 utilization. Hence, supply should not be burdensome.

Demand is less certain. Domestically, livestock numbers are expected to be up. Potentially lower livestock/feed price ratios and lighter fed weights will temper the impact of the rise in numbers. Larger supplies of competing fats and oils also will be available. A 3 percent increase in domestic soybean use looks probable at the past year's product price levels. Exports may not rise at the past year's rate, but the trend should continue upward unless prices rise sharply.

Combining domestic and export utilization tendencies shows that supply clearly is short relative to demand. This may lead to a product price rise and/or a sharp decline in exports to put them more in line with years prior to 1969-70.

Crushing margins during the past year have been the highest in many years, averaging about 65 cents in the September-May period. Processors have been operating at full capacity all year without building up

stocks of oil and meal. But there have been enough significant additions to plant capacity to warrant expectation of more normal margins in the coming year as processors more actively bid for beans to maintain plant utilization. If product prices continue at the same level as last year, we can expect average soybean prices as much as 40 cents per bushel higher than in 1969-70. Some observers are now expecting to see soybeans at about the \$3 per bushel level in the spring of 1971. Two critical factors are the export rate and the degree to which expanded crushing capacity will result in trimmed crushing margins.

In past years, a price at this level has sharply curtailed use. We expect the price rise to stop short of \$3, perhaps at about \$2.85-\$2.90, basis Minneapolis. ■

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# OUTLOOK



## Agricultural Income

Paul R. Hasbargen

During the past few years, Minnesota farmers specializing in crop production have been in a net income squeeze, while livestock producers have enjoyed rising incomes. However, during the early sixties, livestock producers had difficulty covering their production costs and showed relatively poorer incomes than crop specialists.

The early seventies will be a repeat of the early sixties. Livestock and livestock product prices will decline under increasing supplies during the 1970-71 marketing year. Hog prices will be sharply lower. Beef prices will be under pressure. Poultry and egg prices will be down. Milk prices will stabilize.

While livestock prices decline, input prices will go up as inflation continues. Labor will continue to be the input that increases in cost most rapidly. This will encourage additional substitution of mechanized livestock operations for those requiring high labor inputs.

Small livestock producers unable or unwilling to spread family labor costs over a larger volume will suffer sharp income losses. These losses will not be easily offset by increasing the nonfarm income component of family income due to continued high unemployment levels in the year ahead.

Careful cash flow budgeting will be necessary to make ends meet, especially

in the next couple years. Hogmen, cattle feeders, and poultrymen will find fewer dollars available for capital goods replacement. Dairymen will see less change from recent years, but they will miss the upward movement in milk prices.

Since two-thirds of the cash receipts of Minnesota farmers are from livestock, the expected reduction in livestock prices in the year ahead will have a significant impact on the economy of rural Minnesota.

However, income prospects for crop farmers look somewhat brighter for the coming year. High livestock numbers,

coupled with an unusually strong export demand, have reduced crop carryover stocks to the point that prices have moved off the support floor. Production and utilization prospects for the coming year suggest that crop prices will be sustained at higher levels for the next marketing year, resulting in some improvement in income to crop farmers.

For the United States, 1969-70 farm income was near record levels. For the calendar year 1970, net income will be over \$16 billion, despite declining livestock prices during the last half of the year.

Odds are that net income in 1970-71 will be reduced because of lower livestock prices and higher production costs. Estimates of the changes we expect in the different components of farm income in the year ahead are shown in the accompanying table. ■

**U.S. farm income, 1968-69 and 1969-70 and estimates for 1970-71**

Item	Unit	1968-69*	1969-70*	1970-71†
<b>Livestock products</b>				
Volume of marketings . . . . .	(1957-59 = 100)			
Prices received . . . . .	do.	125	126	129
Cash receipts . . . . .	Bil. dol.	118	130	126
		26.9	29.6	29.4
<b>Crops</b>				
Volume of marketings . . . . .	(1957-59 = 100)			
Prices received . . . . .	do.	132	131	130
Cash receipts . . . . .	Bil. dol.	101	101	105
Total cash receipts . . . . .	Bil. dol.	18.9	18.9	19.7
		45.8	48.5	49.1
<b>seasonally adjusted annual rates</b>				
Cash receipts . . . . .	Bil. dol.	46.0	48.3	49.1
<b>Nonmoney income and government payments</b>				
Realized gross farm income . . . . .	Bil. dol.	7.0	7.4	7.3
Production expenses . . . . .	Bil. dol.	53.0	55.7	56.4
Realized net farm income . . . . .	Bil. dol.	37.2	39.4	41.0
		15.8	16.3	15.4

\* USDA estimates.

† Author's estimates.

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