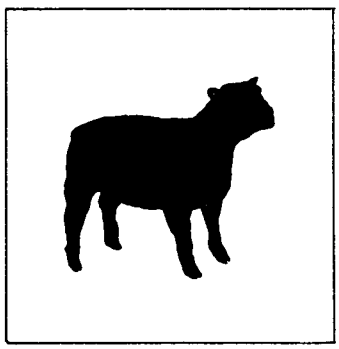
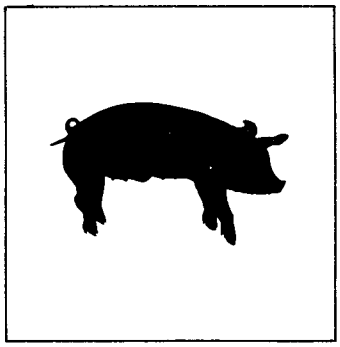
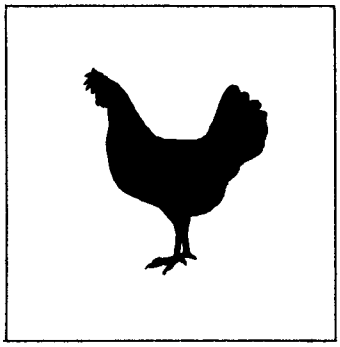
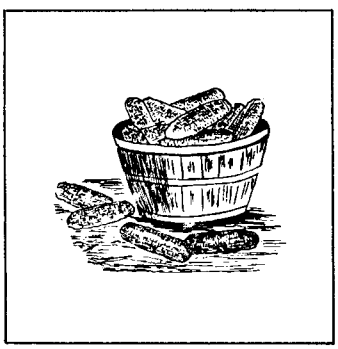
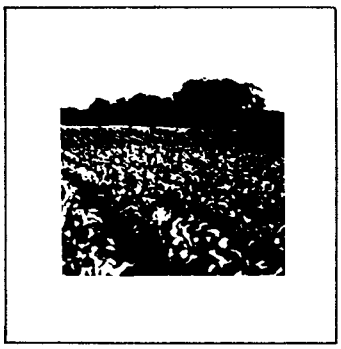
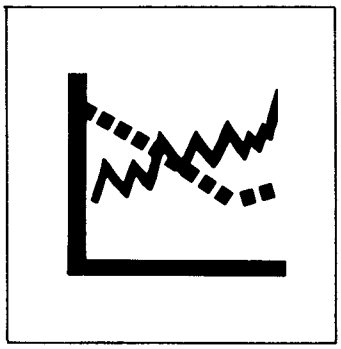
Economic Report ER 78-6 September 1978

1979
AGRICULTURAL OUTLOOK



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

AGRICULTURAL OUTLOOK 1978-79

by
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Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Roland H. Abraham, Director of Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota 55108.

FARM INCOME AND POLICY

The bountiful harvests of 1977 brought sharply lower crop prices and a new farm bill a year ago. The farm bill with its grain reserve provisions, sharply higher livestock prices, plus a strong world demand for U.S. grains resulted in increased crop prices and farm incomes during the past year. This article reviews the current farm income situation and outlook as well as past and prospective participation in the government farm program.

FARM INCOME OUTLOOK

Supply

Near record U.S. feedgrain yields this year--if they materialize--will nearly offset reduced acreage, resulting in a feedgrain crop as large as in 1977. An expected 5 percent increase in wheat yields will just partially offset a 15 percent decrease in harvested acreage. The soybean crop is apt to set a new record as expanded acreage more than offsets lower yields. Beef and dairy product supplies are trending down. Pork and poultry supplies are increasing.

Demand And Prices

The need for feedgrains for livestock and poultry feed will increase 5 to 7 percent in the coming feeding year. Export potential is somewhat uncertain at this time; on the one hand, production outside the U.S. appears to be very high while, on the other hand, there has been a strong growth trend in feedgrain exports. On balance, we expect exports to about equal those of the past year, leaving only a slight build up in carryover supplies. This balance would put feedgrain prices near year earlier levels, with the average farm price of corn about $2 per bushel.

Wheat exports in the coming year may also about match year earlier levels. However, domestic use will be cut back because the higher loan rate on wheat will sharply curtail wheat feeding. Nevertheless, year-end carryover supplies are expected to decline somewhat and wheat prices are expected to average some 15 percent over year earlier levels.

The record soybean crop will be matched by a record demand for meal and oil, leaving a U.S. average price expectation at the level of the past year.

Consumer demand for meat has been exceptionally strong in 1978 with prices of all red meats and poultry being above normal supply-demand relationships. Even if demand weakens some in the year ahead, beef and dairy prices will be higher. However, hog and poultry prices are expected to be lower.

Farm Income

Table 1 shows income per farm for different sales categories in 1977. Note that almost two-thirds of all farms gross less than $20,000 and have off-farm incomes that average six times as much as their net farm incomes ($13,596 versus $2,281). Although there may be a small percentage of these families that are trying to make a living from farming, the overwhelming majority must be considered to be rural residents and part-time farmers who prefer country living but don't expect to earn their living from farming. Yet, these 1,875,000 farm units are usually lumped together with the 831,000 farm operators who have sales of over $20,000.

Full-time commercial farmers usually gross more than $40,000. The net farm incomes for the 500,000 commercial units in the three largest size categories averaged between $18,500 and $48,000--for an overall average of $24,794. Obviously, the price and income policy needs of this group of commercial farmers is quite different than those of the low-resource farmers who lack adequate business size to make a living from farming even with sharply higher farm prices.

Table 1. Number Of Farms, Percent Of Sales Per Farm And Net Farm Income, 1977

	Farms With Sales Of:						
	$200,000 and Over	$100,000 to $199,999	$40,000 to $99,999	$20,000 to $39,999	$ 2,500 to $19,999	Less Than $2,500	All Farms
Number of farms (thousands)	55	107	348	321	917	958	2,706
% of farms	2.0	4.0	12.9	11.9	33.9	35.3	100
% of farm sales	35.6	17.0	25.6	11.1	9.5	1.2	100
% of net income*	13.1	17.7	32.0	16.0	14.0	7.2	100
Net farm income/farm*	$47,946	$33,356	$18,502	$9,993	$3,079	$1,518	$7,439
	$38,310				$2,281		
Off-farm income	$9,636		$6,011	$6,956	$13,596		
Total income/ farm family	$47,946		$24,513	$16,946	$15,877		

* Net income before inventory adjustments

Table 2 shows the recently revised U.S. farm income estimates made by USDA. Current expectations are that 1978 calendar year net income will jump to $25 billion--equaling the annual rate shown in table 2 for the second quarter of 1978, which is an increase of almost a fourth over 1977 in current prices. This large year-to-year increase in net farm income is due to the very sharp increase in livestock prices despite large livestock marketings and the sizeable increase in government payments to farmers.

It may be difficult to hold net farm income in the $25 billion area in 1979. However, given a combination of the strong foreign demand potential we see plus higher participation in the government farm program--especially in the reserve storage program--there is potential for an even higher net farm income in 1979.

By type of farm, we see an excellent income outlook for dairy, beef and hog producers; a good outlook for poultry and soybean producers; and a more moderate one for corn and small grain producers.

Table 2. U.S. Farm Income, 1975 - 1978*

				1978	
	1975	1976	1977	Jan.-March	April-June
	- - - - - - - - $ billion - - - - - - - -				
Cash recepits from farm marketings	88.2	94.5	96.1	102.2	110.0
Livestock and products	43.0	46.2	47.6	57.2	57.0
Crops	45.1	48.3	48.5	49.5	53.0
Nonmoney and other farm income**	8.7	9.6	12.0	13.6	14.0
Gross farm income	96.9	104.1	108.1	115.8	124.0
Farm production expenses	75.9	83.0	88.0	93.5	97.0
Net income before inventory adj.	21.1	21.2	20.1	22.3	27.0
Net change in farm inventories	3.4	-2.4	.4	0	-2.0
Net income after inventory adj.					
Current prices	24.5	18.8	20.6	22.3	25.0
1967 prices***	15.2	11.0	11.3	11.8	13.0

* All estimates starting with calendar year 1975 have been updated with new information; quarters of 1978 are subject to revision as year progresses. Quarterly data are seasonally adjusted at annual rates.

** Includes government payments to farmers, value of farm products consumed in farm households, rental value of farm dwellings, and income from recreation, machine hire, and custom work.

*** Deflated by the consumer price index for all items, 1967 = 100.

FARM PROGRAM DEVELOPMENTS

1978 Crop Programs

Initial sign up for the 1978 feedgrain and wheat programs showed about 1.2 million farms intending to plant about 50 million acres of wheat and 70 million acres of feedgrains. Set-aside acres were expected to total 17 million acres--10 million under the wheat program and 7 million acres under the feedgrain program. An additional 5 million acres were to be diverted under the voluntary diversion feature of the feedgrain program.

But, sign up did not necessarily commit farmers to the program. When it came time to certify their crop acreages, many producers decided against participation--particularly corn producers. What the final tally will be will not be known until sometime in September, but preliminary indications are that compliance will be about as follows: for wheat, 85 percent of the wheat acreage originally signed up; for corn, 60 percent; and for grain sorghum and barley, 80 percent of the signed acreage will comply with the program.

It is estimated that 35 to 45 percent of the corn to be harvested will be eligible for the loan program; 70 to 75 percent of the sorghum harvested; 65 to 70 percent of the barley; and 75 to 80 percent of the wheat. Fairly high participation in the loan program by eligible farmers will be necessary if the loan program is to provide a price floor. How effective the loan program will be in providing a price floor for corn at harvest time remains to be seen.

The Grain Reserve

As of August 18, 1978, 384 million bushels of wheat had been placed in the grain reserve. This surpasses the earlier administration goal of placing 330 million bushels of wheat in the reserve. (Minnesota farmers put 51 million bushels in.) The reserve takes wheat and other grains off the market for a period of 3 years or until market prices increase to specified levels.

The goal for feedgrains was to place 670 million bushels (corn equivalent) in the reserve. Of this, 500 to 575 million bushels were the goal for corn. As of August 18, 1978, about 168 million bushels of corn had been placed in the reserve. Other grains placed in the reserve were: barley, 29 million bushels; oats, 33 million bushels; and sorghum, 24 million bushels. Total reserve holdings of feedgrains are slightly less than 40 percent of the goal.

In order to encourage movement of additional feedgrain into the reserve, ASCS has reopened (until September 29, 1978) the availability of loans on 1977 crop corn and sorghum. These loans are available to producers who wish to move the grain into the reserve program. In areas where there is a critical shortage of local storage capacity, the amount of the loan may be increased to take into account the cost of transporting the grain to an area where storage is available. Finally, participants in the 1978 program may move 1978 crop corn directly into the reserve storage program.

Target Price Payments On 1978 Wheat

Target price payments on the 1978 wheat crop are due to begin on December 1, 1978. The amount of the payment will be the amount the 5-month market price (June - October, 1978) is below the target price of $3.40 per bushel. Wheat farmers who voluntarily reduced their 1978 wheat plantings 20 percent below their 1977 plantings will receive payments on 100 percent of their 1978 plantings. The allocation factor for calculating the proportion of plantings eligible for payments for wheat producers who did not make a voluntary reduction has not yet been announced.

The 1979 Wheat Program

The administration announced the provisions of the 1979 wheat program on August 14, 1978. It is much like the 1978 program--by complying with the announced 20 percent set-aside, wheat farmers will be eligible for wheat loans of $2.35 per bushel and a target price of $3.40. These are the same as under the 1978 program. Program participants who voluntarily reduce their plantings by 15 percent from their 1978 acreage (which includes set-aside or voluntary reduction acres, whichever was larger) will be eligible for target price coverage on 100 percent of their 1979 planted wheat acreage. Under the 1978 program, the voluntary planting reduction was 20 percent.

The 1979 Feedgrain Program

The feedgrain program for 1979 is currently under study and is scheduled to be announced by November 15, 1978. USDA is currently soliciting suggestions as to (1) whether barley and oats should be included in the program (corn and sorghum must be in); (2) whether a set-aside is desirable--and the size of such set-aside; (3) whether a land diversion program should be required; and (4) loan and target price levels for 1979 crops.

Comments should be sent to the acting director, Production Adjustment Division, ASCS, USDA, Room 3630 South Building, P.O. Box 2415, Washington, D.C. 20013. To be assured of consideration, the comments need to be received no later than October 6.

FEEDGRAINS

AT A GLANCE: Feedgrain supplies for the 1978-79 marketing year are projected to be only slightly above last year. Feedgrain disappearance will be up 2 to 3 percent, leaving an excess of about 7 million tons of production to be added to the carryover. Therefore, unless feedgrain production is significantly below the August 1 estimate or foreign demand proves to be stronger than now expected, feedgrain prices will remain near loan levels for the coming winter. A corn price pattern similar to that of the past year is in prospect, with the possibility of stronger prices next summer if the 1979 corn crop does not develop in a normal manner.

Factors To Watch

1. The weather could still be a significant factor affecting 1978-79 grain production and prices. An early frost in the corn belt could significantly reduce 1978 corn prospects and decrease the feeding value of the harvested crop. Weather in the southern hemisphere will affect world supplies and prices in early 1979.

2. Watch for an increase in movement of feedgrains into the government reserve program. As of mid-August, only about 40 percent of the government's goal of 670 million bushels of feedgrains were in the reserve.

3. The amount of 1978 corn that goes under loan will also be a factor in market strength in the months ahead. We think that about 40 percent of the national corn crop will be eligible for loan because of program participation in the 1978 government set-aside program.

CORN

1977-78 Review

Corn prices recovered rather sharply from the pre-harvest August - September lows of under $1.60 in southern Minnesota to over $1.80 in November. This initial jump came when the large selling pressures of farmers attempting to make ready for the 1977 bumper crop subsided and the new crop was eligible for government loans.

Corn prices stabilized at levels near county loan rates of about $1.90 in much of southern Minnesota for the 4 months of November through February. Since spring, corn prices have moved in the opposite direction of crop prospects--first up when crop prospects looked poor, then down when prospects improved.

The news of delayed corn plantings pushed prices up 30¢ in March and April. Continued delayed planting and wet weather resulted in additional price increases into May when country prices reached the $2.30 a bushel area and December corn futures climbed to $2.75 a bushel, providing excellent hedging opportunities for the 1978 corn crop. Since June, good corn growing conditions resulted in declining corn prices. With the August 11 announcement of the bumper 6.5 billion corn crop expected in 1978, both futures and cash prices hit new lows for the calendar year. Prices recovered a bit in late August, with news of large exports and renewed government efforts to get additional supplies of 1977 grain into the reserve program.

The 1977 crop turned out to be almost 300 million bushels larger than early fall expectations. However, export demand proved to be exceptionally strong throughout the marketing year, resulting in a smaller projected build-up in ending stocks carryover on October 1 than our expectations at this time a year ago. Average corn prices, however, did fall within the range of our published expectations of last fall.

1978-79 Supply Prospects

Current prospects are that carryin stocks of 1.1 billion bushels will be the largest since 1971. The USDA August 1 production forecast of 6.5 billion bushels was up sharply from the July 1 forecast. Corn acreage harvested for grain in 1978 is expected to be down 2.3 million acres from last year to 67.7 million. Yield is forecast at 96.1 bushels per harvested acre--a 5 bushel increase over 1977. (We think that the Minnesota corn yield may approach the 100 bushel yield record set last year if we do not get an early frost.) Total production of all feedgrains may about equal the 222.5 million tons produced in 1977.

1978-79 Demand Prospects

There will be a very strong demand for corn from the livestock sector in the year ahead. Given livestock number increases in the 5 to 7 percent area and the possibilities of increased feeding rates due to good livestock returns, we expect domestic feed consumption to be about 4 billion bushels of corn in the 1978-79 marketing year.

Food and industrial uses of corn have continued to trend upward slightly faster than expected. Since 1970, per capita consumption of cornmeal has increased from 7.4 pounds to 7.7 pounds; corn syrup has increased from 16.2 pounds to 32 pounds; and corn sugar has increased from 5.0 pounds to 5.5 pounds. We are projecting an industrial and seed use of 580 million bushels for the coming marketing year.

Exports for the coming year are somewhat in question at this time because of the very large worldwide feedgrain production expected in 1978. However, because there has been such a strong growth trend in feedgrain exports, we feel that exports may about equal this past year's 1.85 billion bushels.

Given production and use as we have outlined above, carryout corn stocks at the end of the coming marketing year would be up slightly from year earlier levels. A significant decrease in crop yields from August 1 expectations or an increase in exports over last year's level could drop carryover to below the carryin level of 1.1 billion bushels.

1978-79 Price Prospects

Given that the supply-demand prospects look very close to year-earlier levels, we think that the average seasonal November - July price will also average close to the $2.20 at Minneapolis for the past November - July period. However, we believe that if over one-half of the projected carryover stocks (600 million out of 1.1 billion bushels) are put into the government grain reserve, some rather strong price increases are quite probable during any 1979 crop scares next spring and summer. If substantial concerns do develop over the 1979 corn crop, the average price would probably be higher than that of this past year. On the other hand, the government loan and reserve programs should minimize the downside risk in corn prices next spring even if subsequent supply-demand developments result in expectations of a significant increase in carry-over stocks.

A second successive large corn harvest in Minnesota will keep downward pressure on prices this fall, especially in areas that are short of storage space. The state ASCS office reports that the 9 month storage loans of last fall will mature on about 60 million bushels of corn in September and October. Minnesota grain farmers with available storage will no doubt put this grain into the 3-year reserve. However, those that are short of storage space will probably deliver it to government storage. Areas that still have severe storage problems will experience depressed corn prices again at harvest time. However after the crop is in, we would expect that country corn prices would rapidly move up to the $1.90 loan level. Additional seasonal price increases will probably be needed by spring to pull some corn out of storage.

Pricing Management

1. Plan marketing strategy early in the year. For most cash corn growers, this will involve storing corn at harvest if it has not been contracted at a forward price for delivery this fall.

2. Take opportunities to price some of your corn when corn prices move above your seasonal average price expectation. Remember to consider storage costs on later deliveries.

3. Give consideration to expanded livestock feeding as a good alternative for marketing your corn.

4. Carefully manage your drying and storage operations. Over-drying consumes excess fuel and results in costly shrink. Spoilage in the bin is also costly and may force sales when you would not otherwise want to sell.

OATS

In 1977, oat production increased 35 percent because of attractive early spring prices. This year oat production is expected to be down 15 percent, but the crop is still significantly larger than the 1976 crop. In fact, the 637 million bushel crop is about 30 million bushels larger than projected use in the coming marketing year, giving rise to an expected increase in ending stocks.

This suggests that oat supplies will be plentiful again in the coming year so that the price cannot be expected to average more than 55 percent of the corn price. In recent months, Minnesota farmers have been getting paid about $1 per bushel less for oats than for corn. We expect this $1 per bushel difference to continue in the next marketing year.

BARLEY

Total U.S. barley production is up again in 1978. Adding the larger production to significantly larger beginning stocks gives a total supply of over 600 million bushels, which is 60 percent more than projected use in the coming marketing year (see table 3 for distribution of use). With the sizable increase in ending stocks that is projected, the barley market will do well to match the average price of the past year. Feed quality barley prices in the Red River Valley should run slightly over the $1.70 loan rate level. In years of more plentiful supplies, the malting premium generally is not as great.

With feed barley priced in the $1.70 to $1.80 area, some consideration to the alternative of hog feeding might be warranted. (See budget in Hog Outlook section.)

Table 1. Monthly Average Minneapolis Corn Price

Month	Marketing Year 1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
October	$1.24	$2.28	$3.63	$2.73	$2.49	$1.81
November	1.23	2.34	3.46	2.54	2.30	2.05
December	1.39	2.47	3.35	2.50	2.41	2.05
January	1.42	2.68	3.08	2.51	2.47	2.03
February	1.28	2.92	2.88	2.56	2.47	2.08
March	1.37	2.82	2.79	2.61	2.45	2.23
April	1.46	2.60	2.86	2.59	2.44	2.38
May	1.77	2.55	2.81	2.76	2.35	2.44
June	2.16	2.77	2.83	2.85	2.22	2.38
July	2.25	3.19	2.87	2.88	1.98	2.15
August	2.61	3.40	3.15	2.77	1.71	2.03*
September	2.29	3.43	2.94	2.71	1.72	--
Year Average	1.71	2.79	3.05	2.67	2.25	2.15

* Estimated

Table 2. Corn Supply And Use By Marketing Year

	Average 1966-71	Average 1971-75	1976-77	1977-78	Projected 1978-79
	million bushels				
Beginning Stocks	1,014	746	399	884	1,107
Production	4,339	5,381	6,266	6,371	6,503
Imports	1	1	3	1	1
Total Supply	5,355	6,129	6,668	7,257	7,611
Feed	3,462	3,919	3,587	3,750	4,000
Food, Ind., Seed	398	429	513	550	580
Exports	579	1,112	1,684	1,850	1,850
Total Use	4,422	5,460	5,784	6,150	6,430
Ending Stocks	933	669	884	1,107	1,181
Avg. Farm Price (U.S.)			$2.15	$2.03	$1.95-$2.15

Table 3. Supply And Use Of Oats, Barley And All Feedgrains By Marketing Year

	Oats		Barley		All Feedgrains*	
	1977-78	Projected 1978-79	1977-78	Projected 1978-79	1977-78	Projected 1978-79
	----- million bushels -----				-- million tons --	
Beginning Stocks	165	309	126	172	33.0	45.7
Production	748	637	416	440	222.4	222.8
Imports	2	1	9	10	.3	.3
Total Supply	915	947	551	622	255.7	268.8
Feed	511	510	162	170	129.7	137.4
Food, Ind., Seed	84	85	160	162	20.7	21.4
Exports	11	10	57	50	59.6	57.0
Total Use	606	605	379	382	210.0	215.8
Ending Stocks	309	342	172	240	45.7	53.0
Avg. Farm Price (U.S.)	$1.14	$1.05-$1.15	$1.80	$1.70-$1.85		

* Includes corn, oats, barley and grain sorghum.

Table 4. Grain Consuming Animal Units (GCAU) And Feedgrains Fed

Year	GCAU (mil. units)	Feedgrains Fed (mil. metric tons)	Fed/GCAU (tons)	Corn Fed (mil. bu.)	Corn Fed/GCAU (bushels)
1972-73	79.4	140.9	1.77	4,310	54.3
1973-74	78.5	138.1	1.76	4,205	53.6
1974-75	69.8	104.5	1.50	3,226	46.2
1975-76	75.0	115.4	1.54	3,592	47.9
1976-77	75.9	112.5	1.48	3,587	47.1
1977-78	78.8	117.8	1.49	3,750	47.6
1978-79*	83.2	124.6	1.50	4,000	48.0

* Estimated

Table 5. Cumulative Variable Costs Of Storing Corn - 1978

$/BU	PLACE OF STORAGE	MONTHS IN STORAGE 1	2	3	4	5	6	7	8	9	10
		CENTS PER BUSHEL									
1.50	FARM	2.8	4.1	5.4	6.7	8.0	9.3	10.6	11.9	13.3	14.6
	ELEVATOR	3.1	6.3	9.4	12.6	15.7	18.9	22.1	25.2	28.4	31.6
1.75	*FARM	2.8	3.9	4.9	6.0	7.0	8.1	9.2	10.3	11.4	12.4
1.75	FARM	3.2	4.7	6.2	7.8	9.3	10.8	12.4	13.9	15.5	17.1
	ELEVATOR	3.3	6.6	10.0	13.3	16.7	20.0	23.4	26.8	30.2	33.6
2.00	*FARM	3.2	4.4	5.6	6.8	8.1	9.3	10.5	11.7	13.0	14.2
2.00	FARM	3.7	5.4	7.1	8.9	10.6	12.4	14.1	15.9	17.7	19.5
	ELEVATOR	3.5	7.0	10.5	14.1	17.6	21.2	24.7	28.3	31.9	35.5
2.25	FARM	4.2	6.1	8.0	10.0	11.9	13.9	15.9	17.9	19.9	22.0
	ELEVATOR	3.7	7.4	11.1	14.8	18.6	22.3	26.1	29.9	33.7	37.5

ASSUMPTIONS
9.0 INTEREST RATE
FARM LOSS AND DAMAGE OF 1.0 PCT.
PLUS .10 PERCENT/MONTH
ELEVATOR CHARGE 2.0 CENTS/MONTH
* ASSUMES STORED UNDER GOVERNMENT LOAN WITH INTEREST AT 6 PCT.

This is the implied price rise necessary to break even after having put the crop in storage.

SOYBEANS

AT A GLANCE: Soybean prices during 1977-78 reflected a strong domestic and foreign demand for soybeans and soybean products. For 1978-79, potential soybean production appears to be up by about 3 percent from a year earlier. With a slight increase in carryover stocks from a year earlier, total supplies of soybeans in 1978-79 will be increased by about 4 percent. The October - June, 1978-79 Minneapolis seasonal average price is expected to be in a range of from $6.25 to $6.75 per bushel. A soybean meal price of $170 to $180 per ton seems realistic.

Factors To Watch

1. The final size of both the U.S. and Brazilian soybean crops will have a major impact on soybean prices because of the relatively low carryover expected.

2. Half the crop is usually exported, so watch the rate of exports and export commitments as an indicator of foreign demand.

3. Domestic livestock consumption of meal can be gauged by watching livestock numbers and feeding programs.

4. The strength of soybean oil and meal markets relative to soybeans is reflected in the crushing margin.

1977-78 Review

Minnesota soybean prices increased sharply over the marketing year as they moved from harvest lows of about $4.50 per bushel to $7 per bushel peaks in late May. They then declined to current levels in the low $6 per bushel range. For the entire September - August marketing year, Minneapolis cash soybeans averaged about $6 per bushel, or about $1.30 per bushel below 1976-77 levels (see table 1).

At harvest 1977, the soybean market was pricing a seemingly burdensome record soybean crop when compared with expected 1978-79 soybean utilization. However, as the marketing year progressed it became evident that domestic soybean meal, soybean oil consumption and foreign soybean meal exports would be much higher than earlier predicted by USDA. By summer, the earlier USDA prediction of a 270 million bushel year-end carryover had been scaled down to only 125 million bushels (see table 2). The rise in the domestic consumption of soybean meal was tied to increased U.S. numbers of protein consuming animal units and heavier feeding rates. The large export movement can be attributed to the short Brazilian soybean crop along with the generally strong world demand for soybeans, soybean meal and soybean oil, especially in the European community.

If the utilization rate continues as expected, the carryover of 1977-78 soybeans into the 1978-79 marketing year will be about 125 million bushels, up about 22 million from a year earlier.

1978-79 Supply Prospects

On August 1, the USDA estimated that the 1978 soybean crop would total 1.77 billion bushels (see table 2). If this estimate materializes, this would put the 1978 crop 3 percent above a year ago, reflecting a 9 percent increase in estimated acreage to be harvested coupled with a 2 bushel decline in average yield. Assuming no drastic change, it now appears that with a slightly higher expected carryin of soybeans, the total supply of soybeans available for utilization in 1978-79 will be between 1.9 and 2.0 billion bushels--4 percent more than a year earlier.

1978-79 Demand Prospects

In projecting the utilization of the 1978-79 soybean crop, it should be kept in mind that in recent years about half of the soybeans produced in the United States have been exported and about half are used domestically, largely for animal consumption. The strong domestic soybean meal utilization which contributed to strong prices in 1977-78 could develop again in 1978-79. Livestock production analysts predict increases in hog, poultry and cattle feeding in 1978-79. If livestock feeding profitability remains high, the rate of protein feeding could continue high. Domestic livestock and poultry feeding will probably consume 4 to 6 percent more soybean meal this year compared with a year earlier. Such a feeding rate would require a domestic soybean crush of 965 million bushels.

U.S. soybean meal exports will likely be large again in 1978-79, but not too different from a year earlier. If the Brazilian soybean crop rebounds, it would be expected to take a slightly higher share of the world market pie. However, since the total world market appears to be larger for the year ahead, U.S. exports could still grow some. A conservative estimate of meal and soybean exports would put them 3 percent higher than a year earlier at the equivalent level of 720 million bushels of soybeans.

With continued world increases in domestic and world livestock and poultry feeding and the projected crush for 1978-79, a soybean meal price of $170 to $180 per ton seems realistic. Soybean oil demand has been very strong in recent years and is expected to continue strong in the year ahead. Though U.S. oil exports are expected to decline some due to competition from Brazilian oil, Malaysian palm oil, Canadian rapeseed oil and Russian sunflower oil, domestic demand for soybean oil should keep total utilization at a level quite similar to a year earlier. A projected price of soybean oil of about 23¢ per pound appears likely. This would put oil prices slightly below last year.

1978-79 Price Prospects

Bids for new crop soybeans delivered in November are at a slight discount to current cash soybean prices, reflecting the high expected 1978-79 supply of soybeans. New crop bids are generally around $5.80 to $6 per bushel at country points now.

Our forecasts for the 1978-79 Minneapolis October - June seasonal average price are in the $6.25 to $6.50 range. It appears likely that the seasonal pattern will be for lower prices at harvest, followed by strength through the winter and early spring. Given the relatively high new crop bids for soybeans in the spring and early summer of 1978, it seems likely that a substantial amount of new crop soybeans were contracted for harvest last spring. Storage will be at a premium this fall. If storage is available, the amount of seasonal price strength will depend on the factors listed earlier but will likely be enough to consider storing at harvest.

Marketing Management

Soybean storage paid good returns in 1977-78. Storage should again pay in 1978-79 but, as usual, should be linked with a marketing management plan. People who do some price averaging through the season will probably come out well in the year ahead. The season average price will help in constructing a marketing plan. When market prices are below these levels, think about holding. It is best to plan a marketing strategy in advance in order to fit selling decisions to cash flow requirements and improve chances of not selling appreciable amounts below the seasonal average price. Calculate storage costs and compare those with your projected seasonal price expectations.

Table 1. Monthly Average Minneapolis Soybean Price*

Month	Marketing Year					
	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
	dollars per bushel					
September	3.32	8.20	7.55	5.53	6.57	5.09
October	3.21	5.82	8.34	5.06	6.19	5.01
November	3.46	5.46	7.47	4.75	6.52	5.77
December	3.91	5.80	7.25	4.51	6.76	5.78
January	4.26	5.92	6.30	4.49	6.95	5.46
February	5.54	6.06	5.68	4.58	7.19	5.46
March	6.07	5.96	5.52	4.58	8.28	6.35
April	6.25	5.43	5.77	4.64	9.65	6.66
May	8.76	5.39	5.20	5.15	9.41	6.94
June	10.10	5.38	5.10	6.15	8.19	6.67
July	6.37	6.88	5.51	6.55	6.34	6.46
August	8.87	7.63	5.93	6.30	5.49	6.40**
Marketing Year Avg.	5.84	5.99	6.30	5.20	7.30	6.00**

* Most Minnesota country prices are 20¢ to 25¢ per bushel under Minneapolis.
** Estimated

Table 2. Soybeans: Supply And Utilization By Marketing Year*

	Average 1965-69	1974-75	1975-76	1976-77	1977-78	Projected** 1978-79
	million bushels					
Beginning Stocks	130	171	185	245	103	125
Production	998	1,215	1,546	1,288	1,716	1,765
Total Supply	1,128	1,386	1,731	1,533	1,819	1,890
Crushing	603	701	865	790	930	965
Exports	300	421	555	564	705	720
Seed, Feed, etc.	55	79	66	76	59	75
Total Use	958	1,201	1,487	1,430	1,694	1,760
Ending Stocks	170	185	245	103	125	130
Avg. Mpls. Price			$5.20	$7.30	$6.00	$6.25-$6.75

* Soybean marketing year - September 1 to August 30.
** Based on USDA estimates of August 11, 1978.

Table 3. Soybean Prices Compared With Market Value Of Oil And Meal*

	8/12/76	8/18/77	8/24/78	Projected 1978-79
Soybean oil price/lb.	20.50¢	20.70¢	27.44¢	22¢ - 24¢
Oil yield/bu.	11.23 lbs.	11.26 lbs.	11.10 lbs.	11 lbs.
Oil value/bu.	$2.30	$2.33	$3.02	$2.42 - $2.64
Soybean meal price/ton	$170.00	$133.00	$167.50	$170 - $180
Meal yield/bu.	48.49 lbs.	47.80 lbs.	47.80 lbs.	48 lbs.
Meal value/bu.	$4.12	$3.18	$4.00	$4.08 - $4.32
Value of oil & meal/bu.	$6.42	$5.51	$7.02	$6.50 - $6.96
Crushing margin/bu.	$.24	$.12	$.40	$.20 - $.25
Soybean price/bu.	$6.18	$5.39	$6.62	$6.30 - $6.70

* Decatur spot price series

Table 4. Cumulative Variable Costs Of Storing Soybeans - 1978*

Dollar /bu.	Place of Storage	Months in Storage 1	2	3	4	5	6	7	8	9	10
		cents per bushel									
5.00	Farm	9.0	13.0	17.1	21.2	25.3	29.4	33.6	37.8	42.0	46.3
	Elevator	5.8	11.5	17.3	23.2	29.0	34.9	40.8	46.8	52.8	58.8
5.50	Farm	9.9	14.3	18.8	23.3	27.8	32.4	37.0	41.6	46.2	50.9
	Elevator	6.1	12.3	18.5	24.7	30.9	37.2	43.5	49.9	56.3	62.7
6.00	Farm	10.8	15.6	20.5	25.4	30.3	35.3	40.3	45.4	50.4	55.5
	Elevator	6.5	13.0	19.6	26.2	32.8	39.5	46.2	53.0	59.7	66.5
6.50	Farm	11.7	16.9	22.2	27.5	32.8	35.7	43.6	49.2	54.6	60.1
	Elevator	6.9	13.7	20.7	27.7	34.7	41.8	48.9	56.1	63.1	70.3
7.00	Farm	12.6	18.2	23.9	29.6	35.3	38.6	46.9	53.0	58.6	64.7
	Elevator	7.3	14.4	25.0	29.2	36.6	44.1	51.6	59.2	66.5	74.1

* This table is based on an interest charge of 9 percent on money invested in stored grain, on an elevator storage charge of 2 cents per bushel per month, and on a loss and damage rate in farm storage of 1 percent, plus .05 percent per month. With good farm storage management this loss rate will be less. This is the implied price rise necessary to break even after having put the crop in storage.

WHEAT

AT A GLANCE: Wheat prices in the 1977-78 marketing year averaged about 40¢ per bushel less than a year earlier, reflecting both the larger wheat carryover and large production in 1977. Considerable seasonal strength in price developed during the year with prices starting well below year-earlier at harvest but ending well above by marketing year end.

Wheat prices in the 1978-79 marketing year will average higher than in 1977-78. Prices are expected to average 15 to 20 percent above 1977-78, at about $3 to $3.25 per bushel, Minneapolis. Total supply is down about 5 percent, due to the smaller wheat crop. A substantial amount of wheat is under loan or in the government grain reserve.

Factors To Watch

1. The pace of wheat exports, as shown in weekly shipments and commitments data.

2. Weather developments in southern hemisphere countries through winter which might affect their harvest by our spring 1979.

3. Any sign of entry into our market of a new major foreign buyer, such as the People's Republic of China.

Review Of 1977-78

Market prices for wheat averaged lower than in 1976-77. At Minneapolis, 13 percent protein No. 1 DNS wheat averaged $2.86 per bushel--down from $3.23 in 1976-77. But, the seasonal price pattern in 1977-78 returned to a more typical grain market (see table 1). The low point was at harvest, followed by rising prices throughout the season. At the end of the marketing year, prices were about 80¢ per bushel above 1977 harvest lows.

The 1977-78 U.S. wheat supply was about 3,140 million bushels--12 percent above the 1976-77 supply. It was made up from a 2,026 million bushel 1977 crop, plus 1,112 million bushels in stocks. In the face of an uncertain demand, such a large supply put substantial pressure on the wheat market at harvest in 1977. But, low harvest prices helped stimulate the price recovery through the year. Wheat growers were very reluctant to sell wheat at those prices, so it went into storage. By September, over 400 million bushels were under the government loan program.

The low price also stimulated increased wheat use: wheat feeding was almost double the previous year; domestic food use increased by about 3 percent; and exports were up over 18 percent. Again, wheat exports were the dominant demand factor. They accounted for about 6 out of every 10 bushels of U.S. wheat used in 1977-78. There was a record volume of world wheat trade. Toward the end of the marketing year, the U.S. was the only major exporter with ample supplies.

1978-79 Supply Prospects

Total U.S. wheat supply for the 1978-79 marketing year will be about 5 percent below 1977-78 and will likely total just under 3 billion bushels (see table 2). The August USDA crop estimate was at 1,817 million bushels, down 10 percent from last year. Carryover stocks on June 1 totaled 1,174 million bushels. About 42 percent was on-farm storage. Of the stocks' total, 630 million bushels were under loan or in the long-term grain reserve.

Hard spring wheat supply, at 747 million bushels, will be up about 11 percent. The 1978 crop, at 402 million bushels, is up from last year's 398 million, and carryin stocks are about 90 million bushels above a year ago.

1978-79 Demand Prospects

World foodgrain production is estimated to be about 5 percent above last year; wheat production is up about 8 percent; rice production is up about 4 percent. Growth in world foodgrain consumption will likely also be up about 5 percent, so production and consumption will be in approximate balance. Carryover stocks, at 110 to 120 million metric tons, are equivalent to about a 2-month supply. This is a fairly comfortable, but not burdensome, supply. It means that if 1979 foodgrain crop prospects look good, foreign importers will not be particularly aggressive buyers. If crop prospects look doubtful, demand will be very strong since the stocks' cushion is not great. In late July, the wheat crop was expected to be up from 1977 in Australia, Western Europe, India and the USSR; but down in Canada, Argentina, Eastern Europe and North Africa.

Total exports from the U.S. for 1978-79 are expected to be about 1,100 million bushels. This is about the same level as last year (see table 2). They may be up slightly to Japan, Korea, Latin America and Africa. The People's Republic of China has purchased wheat this year. If world crop prospects materialize, wheat exports will be down to the USSR, India and Eastern Europe.

Domestic food use of wheat has been trending upward at about 2 percent per year. Due to inventory changes and flour exports, the year-to-year changes vary somewhat. Following the trend increase, domestic food use would total about 505 million bushels in 1978-79.

A relatively higher proportion of hard spring wheat generally goes for domestic food use. In years of lower crop quality in other wheat classes, more is used for blending with other wheats. Reports so far are indicating a fairly good overall crop quality. Protein levels are said to be relatively high; so hard red spring protein premiums may remain rather low.

Wheat livestock feeding was high last year because wheat was cheap relative to feedgrains early in the season. Corn prices have now been below wheat. The feedgrain crop prospects look good. So, it is likely that wheat feeding will decline to about 100 million bushels.

Total wheat utilization in 1978-79 is expected to be in the 1,700 to 2,000 million bushel range. At this rate, ending stocks would be cut slightly from stocks on hand at the end of 1977-78, but would still total well over 1 billion bushels.

1978-79 Price Prospects

With the likely ending carryover still over a billion bushels, it is difficult to get too bullish on price. We are not likely to see the amount of price increase that we saw through the 1977-78 marketing year. For the 1978-79 marketing year, prices are likely to average 15 to 20 percent above last year. This means an anticipated Minneapolis terminal average price for 13 percent protein wheat in the $3.15 per bushel area for the coming year. At that level, country elevator prices would average in the $2.90 range in the major wheat producing areas of Minnesota.

Current Minneapolis cash and contract wheat prices appear to be strong in view of the projected large supplies of wheat and potential carryover. More price strength could possibly develop during the early part of the marketing year depending on how strongly producers feel about a price increase and hold tightly to stored wheat. A further early rise in wheat prices could develop if wheat program participants respond to the domestic wheat loan and reserve programs. With prices now above the loan rate of $2.35 per bushel and with not all wheat production eligible for the loan program this year, movement of the 1978 crop wheat under loan may be well below the 548 million bushels placed under loan from the 1977 crop. 1978-79 wheat prices could also be influenced by the degree of producer sign-up under the 1979 wheat program.

Part of the strength is due to the amount of wheat put under government loan and in the long-term grain reserve. On August 18, 383 million bushels of wheat were in the government grain reserve. These stocks are not likely to re-enter market channels unless the national average price rises to at least $3.29 per bushel (140 percent of the $2.35 loan rate). Price would have to rise to $4.23 (180 percent of the $2.35 loan rate) before the reserve program stocks would be terminated. It is important to remember that while isolation of these stocks has been helpful to prices at the low price levels, they may dampen price strength if they move into the market at the higher price levels.

1979 Wheat Program

On August 25, 1978, the 1979 wheat program was announced. Very little change was made from a year ago. It included these provisions:

1. Eligibility: A 20 percent set-aside requirement to be eligible for program benefits, same as for the 1978 crop.

2. Loan Rate: A market support price, or loan rate, of $2.35 a bushel, same as for the 1978 crop.

3. Target Price: A target price of $3.40 a bushel, same as for the 1978 crop.

4. Voluntary Reduction: Program participants who reduce their 1979 wheat acreage by 15 percent from their 1978 wheat plantings will be eligible for target-price coverage on 100 percent of the 1979 planted wheat acreage.

5. Grazing: Unlike the 1978 program, the 1979 program does not provide payments for grazing out or buying of planted wheat acreage. However, producers may graze their 1979 set-aside acreage for a 6-month period determined by state ASCS committees, same as in 1978.

Marketing Management

1. Probably the most important element of marketing management is to plan a marketing program early in the crop year. Decide on how many bushels you can afford to be a market speculator and on how much you want to minimize price risk.

2. Lay out your cash flow needs in conjunction with your grain sale program.

3. Know your storage cost on wheat now in storage.

4. Know your pricing alternatives in the cash contract and futures markets. You may have opportunities to price wheat to profitably take out of storage at a later date.

5. Don't forget about the market even if your wheat is in the government grain reserve or under loan. Historically, when there have been substantial amounts of wheat under government loan, market prices at some point during the year have risen enough to pull wheat into the market and have then receded as the market was supplied.

Table 1. Monthly Average Minneapolis Wheat Price*

Month	Marketing Year 1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
	dollars per bushel					
June	$1.56	$2.71	$4.70	$3.96	$4.19	$2.59
July	1.63	3.04	5.04	4.24	4.04	2.49
August	1.79	4.47	4.82	4.58	3.51	2.41
September	2.00	4.76	4.85	4.59	3.25	2.66
October	2.10	4.40	5.46	4.46	3.09	2.75
November	2.16	4.47	5.54	4.07	2.98	2.88
December	2.41	4.99	5.18	3.90	2.95	2.88
January	2.42	5.52	4.53	3.98	3.01	2.93
February	2.26	5.81	4.26	4.24	3.04	2.88
March	2.32	5.25	4.18	4.13	2.99	3.03
April	2.37	4.29	4.19	3.94	2.91	3.23
May	2.52	4.06	4.34	3.92	2.76	3.27
Market Year Average	2.13	4.48	4.76	4.17	3.23	2.86

* Monthly average price quotation for No. 1 Dark Northern Spring Wheat, 13 percent protein.

Table 2. Supply And Utilization Of All Wheat By Marketing Year*

	Average 1966-70	Average 1970-72	Average 1973-76	1977-78	Projected 1978-79
	million bushels				
Beginning Stocks	640	903	457	1,112	1,174
Production	1,433	1,485	1,879	2,026	1,817
Imports	1	1	3	2	2
Total Supply	2,074	2,389	2,339	3,140	2,993
Food Use	516	521	537	569	565
Seed	66	63	91	80	80
Feed	134	228	96	193	100
Exports	679	675	1,136	1,124	1,100
Total Use	1,395	1,487	1,859	1,966	1,845
Ending Stocks	679	902	480	1,174	1,148

* Marketing Year: June 1 to May 31; except for 1966-70 (July 1 to June 30).

Table 3. Hard Spring And Durum Wheat Supply And Utilization By Marketing Year

	Hard Spring		Durum	
	1977-78	Projected 1978-79	1977-78	Projected 1978-79
	million bushels			
Beginning Stocks	252	344	92	67
Production	398	402	80	134
Imports	1	1	1	
Total Supply	651	747	173	201
Domestic Use	151	160	44	47
Exports	156	130	62	50
Total Use	307	290	106	97
Ending Stocks	344	457	67	104

Table 4. World Wheat Supply and Utilization*

	Stocks	Production	Exports		Consumption
			Total	U.S.	
	-million metric tons-				
1968-69	88	329	50	15	305
1969-70	112	310	55	17	327
1970-71	95	316	53	20	339
1971-72	72	348	56	17	341
1972-73	79	343	71	31	361
1973-74	61	372	73	33	364
1974-75	69	356	68	28	363
1975-76	63	349	73	32	349
1976-77	59	415	70	26	376
1977-78	99	382	74	31	391
1978-79	89	406	73	30	401

* USDA Estimates

Table 5. Cumulative Variable Costs Of Storing Wheat, 1978

$/BU	PLACE OF STORAGE	MONTHS IN STORAGE 1	2	3	4	5	6	7	8	9	10
		CENTS PER BUSHEL									
2.75	FARM	3.6	5.8	8.0	10.3	12.5	14.8	17.1	19.4	21.7	24.1
	ELEVATOR	4.1	8.1	12.2	16.3	20.5	24.6	28.8	32.9	37.1	41.3
3.00	FARM	3.9	6.3	8.8	11.2	13.7	16.2	18.7	21.2	23.7	26.3
	ELEVATOR	4.3	8.5	12.8	17.1	21.4	25.8	30.1	34.5	38.9	43.3
3.25	FARM	4.2	6.8	9.5	12.1	14.8	17.5	20.2	22.9	25.7	28.5
	ELEVATOR	4.4	8.9	13.4	17.9	22.4	26.9	31.5	36.0	40.6	45.2
3.50	FARM	4.6	7.4	10.2	13.1	15.9	18.8	21.8	24.7	27.7	30.7
	ELEVATOR	4.6	9.3	13.9	18.6	23.3	28.0	32.8	37.6	42.3	47.2

ASSUMPTIONS
9.0 INTEREST RATE
FARM LOSS AND DAMAGE OF .5 PCT.
PLUS .05 PERCENT/MONTH
ELEVATOR CHARGE 2.0 CENTS/MONTH

DAIRY

AT A GLANCE: Strong demand for dairy products, seasonally declining milk production, and low commercial stocks have lifted wholesale dairy product prices above support levels. This should continue through the fall months. In 1979, milk prices likely will hover near support levels during the increasing milk production months and then shift above support--perhaps substantially--as milk production declines seasonally.

Preview And Prospects For The Rest Of 1978

After a record long expansion of 29 consecutive months, U.S. milk production in March 1978 fell below a year earlier. It is expected that milk production during the remainder of the year will be below last year so that the total for the year will be about 122 billion pounds. Production in 1977 was estimated to be 123 billion pounds (table 1).

Lower milk production in recent months has been due to a larger than normal reduction in cow numbers and very little gain in production per cow.

Sales of milk and dairy products during the first 5 months of 1978 appear to be up sharply compared to a year ago. Improved cheese demand and non-retail butter use have strengthened wholesale markets for these products in recent weeks. Government price support purchases for the first 5 months of 1978 amounted to about 3 billion pounds of milk equivalent. The total for the year is not likely to be much greater than this since government sell-back of butter during late summer and fall months should about match possible purchases late in the year. The sell-back price of 110 percent of the purchase price will tend to limit the price rise in the wholesale butter market.

Expected total government price support purchases of about 3 billion pounds of milk equivalent is a hefty amount, but is in sharp contrast to the 6.1 billion pounds in 1977.

Lower milk production prospects and a stronger sales picture, together with commercial stocks at low levels compared to current and expected sales, have led to strengthening of wholesale markets for butter and cheese. As milk production declines seasonally through the fall months, it is likely that wholesale markets will continue to show strength. This should lift prices farmers receive for manufacturing above the support level for most of the rest of the year. The prospect of a significant increase in the minimum price support level on October 1 should add to market strength this fall.

Prospects For 1979

Fairly high culling rates will likely persist through 1979 because of attractive cull cow prices and could dominate the dairy picture next year. We look for a drop in cow numbers in the 1 to 2 percent range--compared to 1 percent in 1978. On the other hand, a favorable milk-feed price relationship should restore some gains to milk output per cow. Combining the two factors suggests that milk production in 1979 will be about 122 billion pounds--the same as the amount expected for 1978.

On the demand side, sales should show continued expansion since retail dairy prices have tended to rise less than the average of all foods. However, we expect that the expansion in sales will be less than a 1 percent increase because of rising prices, particularly in the second half of 1979.

With increased commercial disappearance and increased demand for commercial stocks, net government removals for 1979 should be about 2 billion pounds of milk equivalent compared to 3 billion pounds expected in 1978.

Under the above conditions, in 1979 prices received by dairymen might be expected to rest at about the support level during the months when milk production is increasing but then move above the support level as we move into the months of declining production. If dairymen cull heavily, prices could move up quite sharply.

Price Support Developments

The Food and Agriculture Act of 1979 calls for a minimum support level of 80 percent of parity through September 30, 1979, with semi-annual adjustments to align the support price with changes in the Index of Prices Paid by Farmers. This means that as of October 1, 1978, the support price of manufacturing milk will be adjusted upward to about $9.85 per hundred pounds of milk of national average test, compared to the present $9.43. A further adjustment will be called for in April 1979.

The calculation of the support price for manufacturing milk since 1973 has shown an interesting pattern in the face of rapid inflation. Although the Index of Prices Paid by Farmers increased by 54 percent between 1973 and 1978, the support price for manufacturing milk (at 80 percent of parity) rose by 68 percent. This has occurred because the parity calculation takes into account the price of manufacturing milk compared with the price of other agricultural commodities over the past 10 years. During this period the dairy price has risen compared to most commodities--which has been reflected in the parity calculation.

Management Implications

With an abundant, relatively low priced feed supply and rising milk prices, most Minnesota dairy producers should feed for higher production per cow and keep their facilities operating at full capacity.

Production of early cut, high protein forages will continue to be an important key to success for many Minnesota dairymen, particularly by late 1979 if soybean meal prices increase as expected.

Dairy producers may want to take advantage of the low current prices on soybean meal to contract or purchase ahead for at least part of their 1979 needs.

Dairying will continue to be profitable and compete strongly for resources. This situation, coupled with the underlying stability provided by the dairy price support program, should make this a good time for the above average dairyman to consider expanding and modernizing his dairy unit.

Table 1. U.S. Milk Supply And Disappearance, 1977, With Projections For 1978 And 1979*

	1977**	1978***	1979***
	billion pounds		
Production	123.0	122.0	122.0
Less farm use	2.8	2.7	2.7
Marketings	120.1	119.3	119.3
Beginning commercial stocks	5.3	4.9	5.0
Imports	2.0	2.0	2.0
Total "supply"	127.4	126.2	126.3
Ending commercial stocks	4.9	5.0	5.3
Net government removals	6.1	3.0	2.0
Commercial disappearance	116.4	118.2	119.0
Total "disappearance"	127.4	126.2	126.3

* Milk equivalent, fat solids basis
** Dairy Situation, July 1978
*** Estimated by authors

Table 2. Minnesota-Wisconsin Manufacturing Milk Price For Milk Of 3.5 Percent Milk Fat, 1975 To Date

Month	1975	1976	1977	1978
January	$6.80	$8.90	$8.19	$8.91
February	6.85	8.25	8.16	9.00
March	6.86	8.60	8.31	9.09
April	6.94	8.44	8.60	9.24
May	7.02	8.30	8.62	9.25
June	7.11	8.32	8.60	9.26
July	7.35	8.71	8.65	9.33
August	7.70	8.99	8.64	
September	8.27	8.46	8.74	
October	8.60	8.26	8.74	
November	8.84	8.26	8.79	
December	9.08	8.25	8.87	
Season Average	$7.62	$8.48	$8.58	

BEEF

AT A GLANCE: The liquidation stage of the cattle cycle, after taking the beef industry through 4 years of large losses, has cut cattle numbers enough to bring promises of a period of greatly improved prices and profit prospects. 1978 will go down in the records as a year of excellent profits for cattle feeders and good returns for feeder producers. 1979 promises to be a year of good returns from cattle feeding and excellent returns from cow-calf enterprises. Continued wide fluctuations in cattle prices will offer profit premiums to those who can improve their marketing management, but will necessitate more prudent risk management strategies for those who can't afford large losses.

Review Of The Cattle Cycle

A typical cattle cycle is 10 years in length. Cattle numbers expand for 6 or 7 years and then contract for 3 or 4 years. 1978 is the fourth year of the herd liquidation. This has been the sharpest liquidation in history, with cattle numbers dropping 20 million head since the peak of 132 million on January 1, 1975.

The cow herd has also been cut back more sharply than usual during this liquidation stage. Almost one-half of the total cut in cattle numbers--close to 10 million head--has been in cows. Cows have been killed at the high rate of 18 to 20 percent of the January 1 cow inventory for each of the last 4 years. A normal cow slaughter rate is about 15 percent of the January 1 inventory. The rate has continued higher during 1978 than most people expected because of relatively high cow prices and the poor financial condition of many beef cow owners. Low feeder cattle prices and short forage supplies in many areas led to this record drop in beef cow numbers. The greatly improved calf prices of 1978 plus the improved level of forage supplies will lead to reduced cow slaughter in 1979.

A declining cow herd means a declining calf crop. Since the peak in 1974, when 50.9 million calves were born, there has been a drop of almost 6 million head to an estimated 44.1 million head in 1978. States hard hit by the drought in recent years have cut cow herds and calf crops most sharply. For example, the two Dakotas, Colorado and Wyoming have all cut calf crops by more than 20 percent since 1974. The second largest drop has come in the southeastern states where much grassland has shifted over into crop production in recent years, thereby cutting calf crops 15 to 20 percent since 1974. On the other hand, those corn belt states which have had good rainfall (Indiana, Iowa, Mighigan and Ohio) and which carry their cows on non-tillable pasture and corn stalks have seen the smallest decline in the calf crop--less than 10 percent--since 1974.

After the sharpest reduction in the nation's cow herd in this century, the stage is set for increasing prices for both feeder cattle and fat cattle for the next 2 or 3 years. Cattle numbers will bottom out sometime in 1979. Cattle slaughter, however, will not bottom out until 1980 or 1981, following the smallest calf crop which is likely to be in 1979. As heifers are held back to start rebuilding herds in the next several years, feeder prices will be higher but margins may be tight for feedlot operators.

Review Of The 1977-78 Marketing Year

Choice steer prices moved up fairly consistently from September of 1977 through May of 1978 (see table 1). Feeder cattle prices were at their seasonal low in November, then climbed a full $20 per hundredweight for yearlings and $25 per hundredweight for calves to their seasonal peak in late May. The fat cattle price increases that came after March are very difficult to try to explain. Cattle slaughter and beef production were only down 3 percent from year earlier levels during the first half of 1978. Poultry supplies were up 7 percent and pork supplies were up slightly so that total meat and poultry supplies were down only marginally from 1977 levels. Despite the fact that the supplies came forth about as we had expected last fall, choice steer prices in the first quarter of the year were $8 above year earlier levels and in the second quarter they were almost $15 above year earlier levels. Part of this was due to the fact that a year earlier prices were running $3 to $4 below normal demand-supply relationships. The weak demand of early 1977 was replaced with a strong demand in early 1978 that pushed prices $3 or $4 above normal supply-demand relationships. This accounted for bringing choice cattle prices up to the $50 level. However, the additional run-up of cattle prices to $62 in late May was due to the bullish psychology in the market and was completely unfounded on the basis of changing beef supplies. Prices were moving up so rapidly that retail price levels were running fully $7 to $8 behind live cattle prices. On the basis of these facts, it became apparent to us in late May that the market was due for an $8 correction as soon as retail supply movements slowed down and retail prices leveled off. We tried to warn beef producers of this situation and suggested that cattlemen take advantage of the unusually high prices by selling early or by forward contracting.

The point of resistance to steadily increasing beef prices came in early June. Once retail prices stopped rising, cattle prices had to come down at least $8 per hundredweight from the $62 top. The June 8 announcement that President Carter was increasing import quotas by 200 million pounds gave an additional psychological downturn to the market. This added impetus helped to drop cattle futures prices a full $12 per hundredweight, while live cattle prices came down $8 to $10 per hundredweight about as rapidly as they had gone up in the previous 3 weeks. Fat cattle prices then recovered a few dollars in July and then drifted back toward the $50 level by late August.

Our price forecast model still suggests that a $52 choice steer price represents a fairly strong demand for red meat. Therefore, we are expecting that as demand slackens seasonally into the fall months we will see more choice cattle sold below the $50 level. Obviously, it is a mistake to "blame" these "lower" market prices on the administration's increase in the import quotas for 1978.

Actual beef supplies--which are the major price determining factor--have hardly seen a measurable change since the announcement. The added supply impact of additional imports on choice steer prices would be at the most 40¢ to 50¢ per hundredweight. However, the impact on cow prices could be $1.50 to $2 per hundredweight. Nevertheless, there is little doubt that the unfortunate timing of the announcement helped to push all cattle prices down a little further than they otherwise would have gone before they rebounded.

Outlook For Late 1978

Monthly fed cattle marketings will remain at record levels through September and October, with some possible tapering off in the last 2 months of the year. However, nonfed marketings will be down sharply with cow slaughter possibly 15 to 20 percent below year earlier levels and nonfed steer and heifer slaughter down by one-half. Therefore, total beef supplies will be running about 5 percent less than in late 1977. This will put quarterly beef supplies in the third and fourth quarters at levels similar to those of the second quarter of this year. Because of the wide variation in prices that we have seen the last 6 months, there are equally wide variations in cattle price forecasts for the remainder of 1978. We continue with the same outlook as we have had for most of this year, which is $50 plus or minus 10 percent. (Other analysts put the probable range centering on $54 to $55, but we think that is too high in the face of normally declining demand for beef in the fourth quarter.) We expect some price weakness in September and October with possible strengthening prices by the end of the year.

Yearling feeder cattle prices may show some additional seasonal price declines during September and October in sympathy with any decline in choice steer prices. However, choice steer calves are likely to hold near the $70 level because of the lower calf crop and the larger supplies of forages and feedgrains. The normal seasonal low on feeder calf prices is in November - December when feeder marketings are the heaviest. But, this year calf prices may be higher in December than in September if fed cattle prices are on the increase by year-end.

Outlook For 1979

The stage is set for a significant reduction in beef supplies in 1979 and 1980. Because of this, beef consumption per person may drop to 112 pounds carcass basis in 1979 and to 105 pounds in 1980. Consumption peaked at 129 pounds in 1976. It was 126 pounds in 1977 and will be about 120 pounds this year.

These expectations for reduced supplies stem from two basic facts. First, the supplies of feeder animals on farms are declining (see table 3). Secondly, cow slaughter will have to decline because of (1) a smaller cow herd and (2) a reduction in slaughter rates once herd rebuilding begins.

Note in table 3 that the decrease in yearling weight cattle on farms--both in and out of feedlots--is only 2 percent, while the decrease in calves under 500 pounds was reported at 9 percent. This suggests that total steer and heifer slaughter can be maintained at near year earlier levels until about mid-1979. Of course, more of these animals will be going through feedlots so that feedlot

marketings will continue to surpass year-earlier levels, whereas marketings of nonfed steer and heifers will drop off sharply. However, after mid-year steer and heifer slaughter will have to drop significantly below this year's level even though feeder cattle will probably be placed on feed at lighter weights and, consequently, marketings will be speeded up somewhat in 1979. Total steer and heifer marketings in late 1979 will probably be down some 6 to 8 percent from late 1978. For the year as a whole, total steer and heifer marketings will probably be down 3 to 5 percent from 1978 marketings--even if reduced calf slaughter and increased feeder cattle imports add over a million head to the total for 1979.

Cow slaughter could be down by as much as 15 to 20 percent in 1979 if forage supplies remain plentiful through the year. If cow slaughter drops 15 percent and steer and heifer slaughter drops 4 to 5 percent, the total drop in beef production would be 7 to 8 percent from 1978. This would put 1979 total beef consumption per person down to the 110 to 112 pound area--8 to 10 pounds less than in 1978.

Looking at the demand side, however, we certainly cannot expect the same large shift in consumer demand that was realized in 1978. There will be increased competition from both pork and poultry and although income growth is expected again in 1979, many economists are expecting a significant slow-down in economic growth before the year is over. More importantly, however, we feel that there was an exceptionally strong shift in demand for all meat in 1978 that may not be carried into 1979.

Therefore, we would like to suggest a more conservative planning price than suggested by many analysts. We suggest a $55 annual average for choice steers with a $5 variation around this price during the year. The supply situation, as discussed earlier, would suggest prices in the low $50's in the early part of the year and in the higher $50's after mid-year. However, we would caution that a similar price pattern was suggested for 1978 based upon supplies but, in fact, a run-away demand took over in the second quarter and pushed prices to their annual high at that time despite relatively high slaughter levels. Given that demand is seasonally stronger at mid-year, the same pattern could prevail again in 1979; especially given the fact that supplies of competing meats will be increasing more in the fourth quarter of next year and the economy may be softening at that time. Therefore, it may be more prudent to look at the normal seasonal price pattern for fat cattle which shows that choice steers have averaged 4 to 5 percent above the average yearly price in June, July and August.

Given the bullish supply situation, we would point out that we consider the odds to be very very small that choice cattle prices would be below $50 for any extended period in 1979. On the other hand, there are odds of at least 20 percent that choice cattle prices could be over $60 for at least 1 or 2 months in 1979.

Profit Prospects

When current feeder cattle and feed outlook prices are used along with our outlook for choice steer prices in 1979, cattle feeding budgets suggest better than average feeding returns for the coming season. If choice steer calves are laid in for less than 75¢, we see odds of less than 20 percent that feed and cash costs will not be covered. Using average cost estimates from beef cow farmers who are cooperating in our Upper Great Lakes beef farm demonstration program, projected returns to beef cow herds look very good for 1979. At the time of this writing, over-wintering calves also looks attractive if one assumes a normal fall - spring feeder cattle price increase (see the attached budgets).

Management Implications

With better price prospects, opportunities for increased earnings through improved management are even greater. Following is a brief discussion of some important decision areas.

Risk Management: Price volatility often increases in rising markets, making risk management considerations even more important. Take advantage of high market run-ups, like the one this past May, to do some forward pricing. Avoid buying cattle at such times.

Cow Herd Expansion: Where cow herd expansion fits the farm, do it now to take full advantage of the strong feeder prices expected during the next few years. Keep all yearling heifers and buy additional bred heifers and cows this fall before the cow herd "expansion fever" becomes widespread. Cows, heifers and heifer calves are priced lower this fall than they will be for many years.

When To Sell Feeders: Major factors to consider in the alternative marketing decisions open to feeder producers include the following:

1. Those short of forage and financing might best sell calves on the relatively strong fall market.
2. Those with adequate feed supplies for over-wintering calves should study our "winter calves 1978-79" budget. This alternative usually is profitable during this stage of the cattle cycle. It has been since the fall of 1974, except following the drought year of 1976, for those who fed high value hay.
3. Retaining ownership of yearlings into custom feedlots is an alternative for those who believe that the cattle market will be significantly stronger next spring. Custom feedlot charges must be evaluated, probable costs and returns must be projected, and risk of market losses might be at least partially offset by timely use of forward contracts when the opportunity becomes available.

When To Sell Cull Cows: Cull cows should be sold as early each summer as possible. The seasonal high for cow prices is in May when they are 9 percent over their yearly average. August is an average price month, while December is 12 percent below average--so there is still a potential $40 gain per cow by selling in early September instead of December.

When To Buy Feeders: The normal seasonal low price on both calves and yearlings is in December when calves are 7 percent below their average yearly price and yearlings are 4 percent below their average. We expect the seasonal low to be earlier than ususal this year if fat cattle prices strengthen after October. Also, an early frost in the northern corn belt would result in a feeder cattle price jump as farmer-feeders increase their purchase orders.

What Type Of Feeder To Buy: Use your own costs and outlook prices to compare different feeding programs with budgets similar to the attached. Heifers still appear to be at bargain prices--this may change by late fall if there is a significant increase in herd expansion plans.

When To Buy Feed: If storage is available, harvest time grain prices will offer excellent value opportunities again this year. Also, the outlook for rising bean and meal prices during the coming season suggests that meal needs be filled early. This may also be a necessary tax strategy move for volume cattle feeders who enjoyed large windfall profits from cattle sold in 1978.

Keep Current On Supply-Demand Condition: The Livestock And Meat Situation is a quarterly USDA publication that provides livestock producers with current data on the supplies, demand and prices of livestock and meat. A request to be put on the mailing list can be sent to: USDA/ESCS/CED, 500 12th Street, S.W., Washington, D.C. 20250.

Table 1. Choice Steer Prices Per 100 Pounds, Omaha*

Month	1972	1973	1974	1975	1976	1977	1978
Jan.	$35.63	$40.65	$47.14	$36.34	$41.18	$38.38	$43.62
Feb.	36.32	43.54	46.38	34.74	38.80	37.98	45.02
March	35.17	45.65	42.85	36.08	36.14	37.28	48.66
April	34.52	45.03	41.53	42.80	43.12	40.08	52.52
May	35.70	45.74	40.52	49.48	40.62	41.98	57.28
June	37.91	46.76	37.98	51.82	40.52	40.24	55.38
July	38.38	47.66	43.72	50.21	37.92	40.94	54.59
Aug.	35.70	52.94	46.62	46.80	37.02	40.11	53.25**
Sept.	34.69	45.12	41.38	48.91	36.97	40.35	
Oct.	34.92	41.92	39.64	47.90	37.88	42.29	
Nov.	33.59	40.14	37.72	45.23	39.15	41.83	
Dec.	36.85	39.36	37.20	45.01	39.96	43.13	
Average	$35.78	$44.54	$41.89	$44.61	$39.11	$40.38	$51.29***

* 900 to 1,100 pounds
** For week ending August 12
*** Average of first 8 months

Table 2. Feeder Cattle Price Per 100 Pounds, Kansas City

Month	Choice Feeder Steer (600 - 700#)				Choice Feeder Calves (400 - 500#)			
	1975	1976	1977	1978	1975	1976	1977	1978
Jan.	$26.45	$37.46	$36.49	$44.07	$25.55	$37.47	$37.99	$46.15
Feb.	26.96	40.42	37.86	47.60	26.29	41.40	41.69	51.78
March	28.75	39.69	38.95	52.00	29.14	44.01	44.36	57.64
April	31.69	44.62	41.69	55.08	31.45	47.01	45.72	61.10
May	35.50	44.21	41.72	60.36	34.66	47.58	45.20	68.17
June	36.81	42.83	39.90	58.56	35.82	44.81	42.46	67.00
July	34.70	39.18	40.64	60.60	32.58	40.64	43.14	68.42
Aug.	34.34	38.94	42.00	62.20*	31.70	41.13	45.27	71.60*
Sept.	37.59	36.18	40.85		35.15	38.18	46.06	
Oct.	38.09	36.72	40.82		36.04	39.81	44.48	
Nov.	38.26	36.26	39.94		36.26	38.46	42.95	
Dec.	37.83	36.23	41.33		35.94	38.22	43.84	
Average	$33.91	$39.40	$40.18	$55.06**	$32.55	$41.56	$43.60	$61.48**

* For week ending August 12
** Average of first 8 months

Table 3. July 1 Feeder Cattle Supply

	1975	1976	1977	1978	1977-78 % Change
			(1,000 head)		
Steers and Heifers Over 500 Pounds*					
On Farms	24,981	27,121	27,164	26,570	- 2%
On Feed**	8,507	10,054	9,677	10,723	+11%
Feeder Supply	16,474	17,067	17,487	15,847	- 9%
Calves Under 500 Pounds					
On Farms	42,793	39,370	38,331	34,767	- 9%
On Feed**	403	442	533	687	+29%
Feeder Supply	42,390	38,928	37,798	34,080	-10%
Total Steers & Heifers*					
On Farms	67,774	66,491	65,495	61,337	- 6%
On Feed**	8,910	10,496	10,210	11,410	+12%
Total Feeder Supply	58,864	55,995	55,285	49,927	-10%

* Not including heifers for cow replacement
** Estimated U.S. = 23 states plus 5 percent

COMPUTER DECISION AIDS — AGRICULTURAL ECONOMICS PROGRAM:
EXTENSION FARM MANAGEMENT — BEEF COW HERD BUDGET
AGRI. EXTENSION SERVICE — RESULTS FOR: AVE UGL FARM '79
UNIVERSITY OF MINNESOTA — 08-25-78 NORTHERN MINNESOTA

BEEF COW-CALF BUDGET AND RETURN TABLES

	HERD	PER COW
HERD SIZE AND PERFORMANCE:		
NUMBER OF COWS IN HERD	100	
NUMBER OF REPLACEMENT HEIFERS	14	
PERCENT CALF CROP	90	
PERCENT COWS CULLED ANNUALLY	13	
PERCENT DEATH LOSS	1.12	
VALUE PRODUCED:		
45 STEER CALVES 425 LBS :: $70.00	13387.50	
31 HEIFER CALVES 403 LBS :: $59.50	7418.34	
13 CULL COWS 975 LBS :: $40.00	5070.00	
TOTAL SALES	25875.84	258.76
FEED REQUIREMENTS(HERD) AND COSTS:		
HAY 280.0 TONS :: $38.00	10640.00	106.40
PASTURE 550.0 COW MO.:: $ 4.00	2200.00	22.00
CORN 200.0 BU. :: $ 2.00	400.00	4.00
MINERAL 50.0 CWT :: $ 7.00	350.00	3.50
TOTAL FEED COST	13590.00	135.90
OPERATING COSTS:		
INTEREST ON ANIMAL DEBT(9.5%)	2850.00	28.50
BREEDING COSTS	500.00	5.00
SELLING COST	535.40	5.35
OTHER OPERATING COSTS	975.00	9.75
TOTAL OPERATING COSTS	4860.40	48.60
TOTAL FEED AND OPERATING COSTS	18450.40	184.50
BUDGETED RETURN TO LAB,FACILITY,EQUITY IN COWS	7425.44	74.25

RETURN TO HERD FOR LABOR, FACILITIES, AND COW EQUITY CAPITAL

STEER PRICE	PER CENT CALF CROP 80	85	90	95	100
60.00	2199	3326	4453	5580	6708
65.00	3493	4716	5939	7163	8386
50.00	4787	6106	7425	8745	10064
75.00	6081	7496	8912	10327	11742
80.00	7375	8886	10398	11909	13420

RETURN TO HERD FOR LABOR, FACILITIES, AND COW CAPITAL

WEANING WEIGHT	PER CENT CALF CROP 80	85	90	95	100
385	3082	4274	5467	6660	7853
405	3934	5190	6446	7702	8958
425	4787	6106	7425	8745	10064
445	5639	7022	8405	9787	11170
465	6492	7938	9384	10829	12275

COMPUTER DECISION AIDS — AGRICULTURAL ECONOMICS PROGRAM:
EXTENSION FARM MANAGEMENT — CATTLE FEEDING BUDGET
AGRI. EXTENSION SERVICE — RESULTS FOR: WINTER CALVES 78-79
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BUDGET FOR STEER CALF

	HEAD	CWT GAIN
PERFORMANCE:		
PURCHASE WEIGHT, LBS	425.	
SELLING WEIGHT, LBS	650.	
TOTAL GAIN, LBS	225.	
AVERAGE DAILY GAIN, LBS	1.25	
DAYS ON FEED	180.	
VALUE PRODUCED:		
SALE VALUE AT $ 61.00 /CWT	$ 396.50	
PURCHASE COST AT $ 66.00 /CWT	280.50	
GROSS MARGIN	116.00	$ 51.56
FEED REQUIREMENTS AND COSTS:		
CORN 4.00 BU AT $ 2.00	8.00	3.56
HAY 1.15 TON AT $ 40.00	46.00	20.44
MINERAL .30 CWT AT $ 7.00	2.10	.93
TOTAL FEED COST	56.10	24.93
OPERATING COSTS:		
INTEREST ON ANIMALS (9.5 PERCENT)	13.14	5.84
DEATH LOSS (1.0 PERCENT)	2.94	1.31
SELLING AND BUYING COSTS	3.00	1.33
OTHER OPERATING COSTS	6.00	2.67
TOTAL OPERATING COSTS	25.08	11.15
TOTAL FEED & OPERATING COSTS	81.18	36.08
BUDGETED RETURN TO LABOR & FACILITIES..$	34.82	15.48

RETURN PER HEAD FOR LABOR & FACILITIES WITH DIFFERENT PRICES

SELLING PRICE/CWT	WHEN PURCHASE COST PER CWT IS: 60.00	63.00	66.00	69.00	72.00
57.00	35.78	22.30	8.82	-4.66	-18.14
59.00	48.78	35.30	21.82	8.34	-5.14
61.00	61.78	48.30	34.82	21.34	7.86
63.00	74.78	61.30	47.82	34.34	20.86
65.00	87.78	74.30	60.82	47.34	33.86

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	1.80	2.00	2.20	2.40
60.00	54.33	54.45	54.57	54.69	54.82
63.00	56.40	56.52	56.65	56.77	56.89
66.00	58.47	58.60	58.72	58.84	58.97
69.00	60.55	60.67	60.79	60.92	61.04
72.00	62.62	62.74	62.87	62.99	63.11

NOTE: TO COVER ONLY FEED AND OPERATING COSTS SUBTRACT $ 3.08

COMPUTER DECISION AIDS — AGRICULTURAL ECONOMICS PROGRAM:
EXTENSION FARM MANAGEMENT — CATTLE FEEDING BUDGET
AGRI. EXTENSION SERVICE — RESULTS FOR: GD-CH STR CALF 78-79
UNIVERSITY OF MINNESOTA — 08-25-78 SOUTHERN MINNESOTA

BUDGET FOR STEER AALF
USING A HIGH GRAIN RATION # 1

	HEAD	CWT GAIN
PERFORMANCE:		
PURCHASE WEIGHT, LBS	430.	
SELLING WEIGHT, LBS	1080.	
TOTAL GAIN, LBS	650.	
AVERAGE DAILY GAIN, LBS	2.20	
DAYS ON FEED	295.	
VALUE PRODUCED:		
SALE VALUE AT $ 55.00 /CWT	$ 594.00	
PURCHASE COST AT $ 73.00 /CWT	313.90	
GROSS MARGIN	280.10	$ 43.09
FEED REQUIREMENTS AND COSTS:		
CORN 69.33 BU AT $ 1.85	128.27	19.73
HAY .54 TON AT $ 40.00	21.67	3.33
PROTSUP 2.92 CWT AT $ 10.50	30.71	4.72
MINERAL .43 CWT AT $ 7.00	3.03	.47
TOTAL FEED COST	183.68	28.26
OPERATING COSTS:		
INTEREST ON ANIMALS (9.5 PERCENT)	24.14	3.71
DEATH LOSS (1.7 PERCENT)	5.80	.89
SELLING AND BUYING COSTS	9.00	1.38
OTHER OPERATING COSTS	13.00	2.00
TOTAL OPERATING COSTS	51.94	7.99
TOTAL FEED & OPERATING COSTS	235.62	36.25
BUDGETED RETURN TO LABOR & FACILITIES	$ 44.48	6.84

RETURN PER HEAD FOR LABOR & FACILITIES WITH DIFFERENT PRICES

SELLING PRICE/CWT	WHEN PURCHASE COST PER CWT IS: 67.00	70.00	73.00	76.00	79.00
51.00	29.54	15.41	1.28	-12.84	-26.97
53.00	51.14	37.01	22.88	8.76	-5.37
55.00	72.74	58.61	44.48	30.36	16.23
57.00	94.34	80.21	66.08	51.96	37.83
59.00	115.94	101.81	87.68	73.56	59.43

BREAK EVEN SELLING PRICES THAT WILL COVER FEED, OPERATING,
AND $25.00 RETURN FOR LABOR AND FACILITIES.

PURCHASE PRICE/CWT	WHEN CORN PRICE PER BU IS: 1.48	1.67	1.85	2.04	2.22
67.00	48.20	49.39	50.58	51.77	52.95
70.00	49.51	50.70	51.89	53.08	54.26
73.00	50.82	52.01	53.20	54.38	55.57
76.00	52.13	53.32	54.50	55.69	56.88
79.00	53.44	54.62	55.81	57.00	58.19

NOTE: TO COVER ONLY FEED AND OPERATING COSTS SUBTRACT $ 2.31

COMPUTER DECISION AIDS — AGRICULTURAL ECONOMICS PROGRAM:
EXTENSION FARM MANAGEMENT — CATTLE FEEDING BUDGET
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BUDGET FOR HEIFER CALF
USING A HIGH GRAIN RATION # 5

	HEAD	CWT GAIN
PERFORMANCE:		
PURCHASE WEIGHT, LBS	400.	
SELLING WEIGHT, LBS	980.	
TOTAL GAIN, LBS	580.	
AVERAGE DAILY GAIN, LBS	2.00	
DAYS ON FEED	290.	
VALUE PRODUCED:		
SALE VALUE AT $ 53.50 /CWT	$ 524.30	
PURCHASE COST AT $ 62.00 /CWT	248.00	
GROSS MARGIN	276.30	$ 47.64
FEED REQUIREMENTS AND COSTS:		
CORN 64.44 BU AT $ 1.85	119.22	20.56
HAY .52 TON AT $ 40.00	20.62	3.56
PROTSUP 2.90 CWT AT $ 10.50	30.45	5.25
MINERAL .39 CWT AT $ 7.00	2.71	.47
TOTAL FEED COST	173.00	29.83
OPERATING COSTS:		
INTEREST ON ANIMALS (9.5 PERCENT)	18.72	3.23
DEATH LOSS (1.8 PERCENT)	4.85	.84
SELLING AND BUYING COSTS	9.00	1.55
OTHER OPERATING COSTS	11.60	2.00
TOTAL OPERATING COSTS	44.17	7.62
TOTAL FEED & OPERATING COSTS	217.17	37.44
BUDGETED RETURN TO LABOR & FACILITIES	$ 59.13	10.19

RETURN PER HEAD FOR LABOR & FACILITIES WITH DIFFERENT PRICES

SELLING PRICE/CWT	WHEN PURCHASE COST PER CWT IS: 56.00	59.00	62.00	65.00	68.00
49.50	46.20	33.06	19.93	6.79	-6.35
51.50	65.80	52.66	39.53	26.39	13.25
53.50	85.40	72.26	59.13	45.99	32.85
55.50	105.00	91.86	78.73	65.59	52.45
57.50	124.60	111.46	98.33	85.19	72.05

BREAK EVEN SELLING PRICES THAT WILL COVER FEED, OPERATING,
AND $25.00 RETURN FOR LABOR AND FACILITIES.

PURCHASE PRICE/CWT	WHEN CORN PRICE PER BU IS: 1.48	1.67	1.85	2.04	2.22
56.00	44.90	46.12	47.34	48.55	49.77
59.00	46.24	47.46	48.68	49.89	51.11
62.00	47.58	48.80	50.02	51.23	52.45
65.00	48.93	50.14	51.36	52.58	53.79
68.00	50.27	51.48	52.70	53.92	55.13

NOTE: TO COVER ONLY FEED AND OPERATING COSTS SUBTRACT $ 2.55

HOGS

AT A GLANCE: Indicators point to a slight increase in hog marketings this fall compared to a year earlier followed by larger increases throughout 1979. Demand for pork, however, should be stronger in the face of higher incomes and lower supplies of beef. Hog prices are likely to decline to the mid-$40's per cwt. before the end of 1978. Prices can be expected to range in the mid-$40's per cwt. through much of the first half of 1979 before dropping to the low-$40's in late 1979. With production costs expected to be about the same in 1979 as in 1978, hog producers will continue to show profits through most of 1979.

Factors To Consider

Several factors interact to influence hog prices, but differ greatly in terms of their relative impact on these prices (table 1).

Table 1. Model Of Factors Affecting Hog Price And The Relationship Of Each On Hog Prices

Factor	Percent Change In Hog Price For Each 1 Percent Increase In Factor
Disposable Income	+0.9
Population	+2.3
Beef Supplies	-0.7
Poultry Supplies	-0.5
Pork Supplies	-2.3

The impact of the demand and supply factors differs greatly. For example, a 1 percent change in poultry supplies can be expected to change hog prices by only five-tenths of a percent. However, a change in pork supplies of 1 percent will impact on pork prices by 2.3 percent. Therefore, it is most important in an outlook analysis to get a good prediction on expected hog supply changes.

As the year 1978-79 progresses, it will pay to keep an eye on any changes which might occur in these factors from those predicted in this outlook report.

Past Farrowing Situation

The year 1978 will turn out to be much more profitable for hog producers than was expected by most observers a year ago. At that time, farrowing plans and economic indicators all pointed toward a much sharper increase in both fall 1977 and spring 1978 farrowings. Estimates of actual farrowings and hog producers' intentions to farrow, as reported in the September 1977 USDA Hogs and Pigs Report, indicated that from a year earlier 10 percent more sows were farrowed in June - August 1977, that producers intended to farrow 10 percent more sows in the 1977 September - November quarter, and that producers were developing plans to increase December - February farrowings by 11 percent. The December 1977 USDA Hogs and Pigs Report reinforced slaughter projections based on September 1977 farrowing statistics, indicating that a substantial increase in first-half 1978 pork supplies would develop causing slaughter hog prices to average in the mid to high $30's per cwt.

As it turned out, none of these early USDA farrowing estimates materialized. The 10 percent estimated increase in the 1977 fall sow farrowings made in September was revised downward to 3 percent in the June 1, 1978, USDA Hogs and Pigs Report. The projected 13 percent increase in December - February sow farrowings, based on producers' intentions in December, was estimated to be down 1 percent from a year earlier in the March 1978 report. The expected increase in farrowings predicted last fall failed to materialize. A number of possible reasons contributed to this situation: (1) over-estimates of 1977-78 farrowings in early USDA reports, (2) an increasing number of large hog units were already producing at capacity without further major investment, (3) outlook reports indicating low returns changed some producers' minds, (4) extreme weather conditions of last winter caused death loss and low rates of gains, and (5) disease problems and high costs of new facilities hampered expansion.

Review Of Recent Market

In the first half of 1978, commercial hog slaughter of 38.4 million head, down 1 percent from year earlier, reflected the slight increase in fall 1977 and early winter 1978 farrowings. However, total pork output was increased by about 1 percent over year earlier levels, reflecting slightly heavier weights of hogs going to market.

Demand for pork during the first half of 1978 was very strong. Much of the strength came from a slight reduction in supplies of competing red meats, high beef prices, gains in employment, and increased incomes.

Slaughter hog prices during the first half of 1978 reflected the very strong demand picture since pork supplies increased by about as much as population increased, leaving per capita supplies equal to first-half 1977. Barrow and gilt prices over the first half of 1978 averaged $47.50 per cwt. on seven major markets (table 2). This put first-half 1978 prices 20 percent higher than a year earlier despite similar per capita supplies--a very unusual market phenomenon. Feeder pig prices have reflected the strong slaughter hog market in the first half of 1978, averaging about $45 per head in northern Minnesota. This average was $10 per head higher than first half of 1977.

Total profits in both complete hog enterprises and feeder pig production were stronger than anticipated and significantly above the fairly good returns in 1977.

Farrowing Plans And Projections

Despite the favorable prices and profits in late 1977, hog producers failed to expand sow farrowings significantly in the late spring quarter of 1978. However, most indications point to expansion over the next 12 months, if not beyond. In the June 1978 USDA Hogs and Pigs Report, hog producers indicated their intentions to increase 1978 summer and fall quarter farrowings by 4 percent over a year ago. Several reasons indicate that actual fall farrowings could be at or above the stated intentions level. They include: (1) lower than usual gilt and sow slaughter this summer, (2) returns from hog production were very favorable during the breeding season for sows farrowing in the last half of 1978, (3) projected returns look average or better for the year ahead, and (4) record corn and soybean crops are anticipated. June - August 1978 U.S. sow farrowings could have increased from 2 to 4 percent over a year earlier with September - November 1978 U.S. farrowings increasing by as much as 6 to 9 percent.

Hog producers are currently making breeding plans which will greatly influence the size of winter (December - February) and spring (March - May) farrowings. Most indicators at this time point to continued expansion in farrowings for both quarters. Some of the factors considered in this prediction include:

1. The hog cycle has turned and can be expected to move through a normal 18-month expansion phase.
2. Returns for farrow-to-finish and feeder pig units have been good for about 12 months and should remain good through the entire fall breeding season, thus encouraging increased breeding.
3. Reports indicate that new hog units are being built and expansion of existing units is common.

The probability is better than 80 percent that both winter and spring quarter U.S. sow farrowings will increase within a range of from 8 to 12 percent. The chances are also quite good that this expansion predicted for the spring of 1979 could easily carry over into the last half of 1979.

Market And Price Prospects

Fall 1978

The drop of 4 percent from a year ago in June 1, 1978, USDA inventory of pigs under 60 pounds along with heavy gilt withholding suggests that hog slaughter for the fourth quarter of 1978 should be down from 0 to 3 percent from a year ago. Slaughter weights are expected to average near levels of a year earlier.

Demand for pork should be increased by 4 to 6 percent due to stronger beef prices, higher incomes, and increased population. Since approximately 2 percent more pork is expected this fall compared to a year ago, prices will have to rise over fourth quarter of 1977 to ration the supply over the stronger demand. The chances are at least 2 to 1 that this expected supply and demand relationship will generate an average barrow and gilt price for fourth quarter of 1978 of at least $45 per cwt., with a possible range of $44 to $47 per cwt. Feeder pig prices on 40 pound pigs in northern Minnesota should reflect the strong slaughter hog price, with the range of the average expected to be $44 to $46 per head (table 2).

Average production costs for a complete hog enterprise over the spring and summer months of 1978 would require breakeven levels for slaughter hogs in the mid-$30's per cwt. and low-$30's per head for feeder pigs. Therefore, given the expected strong prices this fall, profit prospects look very good (tables 3 and 4).

As 1978 comes to a close, it appears that hog slaughter for 1978 is expected to total near 77.5 million head. Per capita consumption of pork will total about 61.5 pounds compared with 61.8 for 1977. Hog prices during 1978 should average near $47 per cwt. compared with $41.25 per cwt. for 1977.

First Half 1979

Hog marketings in first-half 1979 will come largely from the June - November 1978 pig crop. It was pointed out earlier that farrowings over this period are expected to expand in a range of 2 to 4 percent for the summer quarter and 6 to 9 percent for the fall quarter. If farrowings develop according to intentions, hog slaughter during the first quarter of 1979 could be around 20 million head, or about 3 to 4 percent above 1978. Slaughter could show a counter-seasonal increase into second-quarter 1979 with marketings of over 20 million head.

The larger pork supplies over first-half 1979 will be offset by 4 to 6 percent less beef, higher consumer incomes, and more consumers. The increased pork supply will find somewhat stronger competition from increased poultry supply. On balance, however, we expect that demand for pork could be up from 4 to 6 percent from a year ago.

Slaughter hog prices will likely average from 5 to 8 percent less during first-half 1979 compared with year earlier levels, putting them in a range of $43 to $46 per cwt. in early 1979, and declining to the $45 to $42 range by second quarter 1979. Feeder pig prices are expected to range in the $40 to $44 range over the same period, reflecting the mid-$40 range on slaughter hogs and approximately $2 per bushel corn.

Profit prospects look good over first half 1979 both for hog and feeder pig producers.

Last Half 1979

Expected strong increases in winter and spring 1979 farrowings of about 10 percent will keep slaughter levels high in second-half 1979. However, the normal seasonal decline in third quarter slaughter will mean that about 20 million hogs will be slaughtered again in that quarter. Seasonal increases will push slaughter to slightly over 22 million head by fourth quarter 1979, up about 10 percent or 2 million head over the previous quarter and the fourth quarter of 1978.

Part of this expected increase in pork supplies by late 1979 could be offset by strong demand for pork coming from sharply higher beef prices. It appears quite likely that hog prices could show some normal seasonal strength in prices to the mid to high $40's per cwt. in third quarter 1979 before declining to the low $40's per cwt. by late 1979. Feeder pig prices for 40 pound feeder pigs could be as low as $33 per head by late 1979.

By late 1979, profits on both complete hog enterprises and feeder pig units could be approaching breakeven levels for some producers. However, it doesn't appear likely that a sub-profitable situation will develop until into 1980. Thus, no reductions in numbers are expected until after 1980.

Management Implications

1. Carrying hogs to heavier weights during a declining market should be carefully considered.

2. It usually pays in the declining phase of the hog price cycle to watch for price contracting opportunities. As long as contract prices adjusted to local area are above breakeven levels, they become possible marketing alternatives.

3. Hog producers may want to take advantage of the low current price on soybean meal to contract or purchase ahead for at least a part of their 1979 needs.

4. Buy additional feedgrains needed for coming year during harvest price lows.

5. With increasing conception problems showing up in many herds, prudent management will keep additional breeding stock to be sure that expensive hog facilities are used to capacity.

Table 2. Quarterly Commercial Hog Marketings And Prices, U.S., 1976 - 1979

Year	Quarter	Number Marketed	Percentage Change, Year Earlier	Slaughter Hogs 7 Markets	Feeder Pigs Northern Minn. 40 Pounds
				Average Price	
		million head		per cwt.	per head
1976	1	17.4	- 7%	$48.00	$45.04
	2	16.8	- 6%	$49.19	$43.52
	3	17.9	+17%	$43.88	$28.34
	4	21.5	+28%	$34.25	$20.80
1977	1	19.7	+13%	$39.10	$30.31
	2	18.7	+11%	$40.87	$36.68
	3	18.3	+ 2%	$43.85	$35.25
	4	20.5	- 5%	$41.38	$30.05
1978	1	19.4	- 1%	$47.44	$40.60*
	2	19.0	+ 2%	$47.50	$48.25*
	3	18.6 - 19.0*	+ 2%	$46 - $49*	$49.20*
	4	20.0 - 20.5*	- 2%	$44 - $47*	$44 - $46*
1979	1	19.6 - 20.2*	+ 3%	$43 - $46*	$42 - $44*
	2	20.0 - 20.6*	+ 7%	$42 - $45*	$41 - $44*
	3	19.8 - 20.5*	+ 8%	$43 - $46*	$36 - $40*
	4	22.0 - 22.6*	+ 9%	$41 - $43*	$33 - $35*

* Estimated

Table 3. Complete Hog Program Budget For 1979 - Sow & Two Litters To Market (230 Pounds)

		Sow 2 Litters		Per Cwt.	My Figures
Value Produced					
14 Pigs - 230# @ $43/cwt.		$1,384.60			
1 Sow - 400# @ $36/cwt.		144.00			
Total (3,620 pounds)		$1,528.60		$42.23	
Feed Requirements and Costs					
Corn @ $2/bushel	230 bu.	$460.00	356 lbs.	$12.71	
Supplement @ $11/cwt.	2,400 lbs.	264.00	66 lbs.	7.26	
Total Feed		$724.00	422 lbs.	$19.97	
Operating Costs					
Interest on Livestock		$ 26.00		$ .72	
Marketing and Hauling		47.00		1.30	
Breeding		8.00		.22	
Veterinary and Medicine		20.00		.56	
Electricity and Fuel		13.00		.36	
Grind and Mix		25.00		.69	
Equipment Repair		14.00		.39	
Miscellaneous Supplies		8.00		.22	
Total Operating		$161.00		$ 4.46	
Total Feed and Operating		$885.00		$24.43	
Return For Labor and Facilities		$643.60		$17.80	

Table 4. Feeder Pig Production Budget For 1979 - Sow & Two Litters To Weaning - Keep Sow For Four Litters

		Sow 2 Litters		Per Pig	My Figures
Value Produced					
15.5 Pigs @ $40/head		$620.00		$40.00	
.5 Sow - 450# @ $36/cwt.		81.00		5.23	
Total		$701.00		$45.23	
Feed Requirements and Costs					
Corn @ $2/bushel	60 bu.	$120.00	3.9 bu.	$ 7.80	
Supplement @ $11/cwt.	800 lbs.	88.00	52 lbs.	5.72	
Total Feed		$208.00		$13.52	
Operating Costs					
Interest on Livestock		$ 14.00		$ .90	
Marketing and Hauling		23.00		1.48	
Breeding		8.00		.52	
Veterinary and Medicine		13.00		.83	
Electricity and Fuel		10.00		.65	
Grind and Mix		7.00		.45	
Equipment Repair		5.00		.32	
Miscellaneous Supplies		5.00		.32	
Total Operating		$ 85.00		$ 5.47	
Total Feed and Operating		$293.00		$18.99	
Return for Labor and Facilities		$408.00		$26.24	

COMPUTER DECISION AIDS
EXTENSION FARM MANAGEMENT
AGRI. EXTENSION SERVICE
UNIVERSITY OF MINNESOTA

AGRICULTURAL ECONOMICS PROGRAM:
PIG FEEDER BUDGET
RESULTS FOR: HOG FEEDER/LATE '78
08-25-78 SOUTHERN MINNESOTA

	LOT	HEAD	CWT GAIN
PERFORMANCE:			
NUMBER PURCHASED ..(9-20-78)...	100.		
NUMBER DIED	3.		
NUMBER SOLD .....(1-15-79)...	97.		
WEIGHT SOLD	22310.	230.	
WEIGHT PURCHASED	4000.	40.	
TOTAL GAIN, LBS	18310.	190.	
DAYS ON FEED	117.		
AVERAGE DAILY GAIN, LBS	155.91	1.62	
POUNDS FEED PER POUND OF GAIN ..	3.74		
VALUE PRODUCED:			
SALE VALUE AT $ 45.00 /CWT	$ 10039.50	103.50	
PURCHASE COST AT $ 46.00 /HEAD .	4600.00	46.00	
DEATH LOSS (3.0%)		1.42	.75
VALUE PRODUCED	5439.50	56.08	29.51
FEED REQUIREMENTS/HEAD AND COSTS:			
CORN 10.53 BU AT $ 1.85 ..	1889.25	19.48	10.25
PROSUP40% 1.24 CWT AT $ 11.00 ..	1321.50	13.62	7.17
(MIN,VIT,ANTIB INCL IN PROT SUP)			
TOTAL FEED COST	3210.75	33.10	17.42
OPERATING COSTS:			
INTEREST ON ANIMALS (9.5%)	140.61	1.45	.76
SELLING AND BUYING COSTS	291.00	3.00	1.58
OTHER OPERATING COSTS	388.00	4.00	2.11
TOTAL OPERATING COSTS	819.61	8.45	4.45
TOTAL FEED & OPERATING COSTS	4030.36	41.55	21.87
RETURN FOR LABOR & FACILITIES	1409.14	14.53	7.65

RETURN PER HEAD FOR LABOR & FACILITIES WITH DIFFERENT PRICES

SELLING PRICE/CWT	WHEN PURCHASE COST PER HEAD IS: 42.00	44.00	46.00	48.00	50.00
41.00	9.58	7.45	5.33	3.20	1.08
43.00	14.18	12.05	9.93	7.80	5.68
45.00	18.78	16.65	14.53	12.40	10.28
47.00	23.38	21.25	19.13	17.00	14.88
49.00	27.98	25.85	23.73	21.60	19.48

BREAK EVEN SELLING PRICES THAT WILL COVER FEED, OPERATING AND $ 7.00 PER HEAD FOR LABOR AND FACILITIES.

PURCHASE PRICE/HEAD	WHEN CORN PRICE PER BU IS: 1.55	1.70	1.85	2.00	2.15
42.00	38.51	39.19	39.88	40.57	41.25
44.00	39.43	40.12	40.80	41.49	42.18
46.00	40.35	41.04	41.73	42.41	43.10
48.00	41.28	41.96	42.65	43.34	44.02
50.00	42.20	42.89	43.58	44.26	44.95

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UNIVERSITY OF MINNESOTA

AGRICULTURAL ECONOMICS PROGRAM:
PIG FEEDER BUDGET
RESULTS FOR: HOG FEEDER/LATE '78
08-25-78 NORTHERN MINNESOTA

	LOT	HEAD	CWT GAIN
PERFORMANCE:			
NUMBER PURCHASED ..(9-20-78)...	100.		
NUMBER DIED	3.		
NUMBER SOLD .....(1-15-79)...	97.		
WEIGHT SOLD	22310.	230.	
WEIGHT PURCHASED	4000.	40.	
TOTAL GAIN, LBS	18310.	190.	
DAYS ON FEED	117.		
AVERAGE DAILY GAIN, LBS	155.91	1.62	
POUNDS FEED PER POUND OF GAIN ..	3.74		
VALUE PRODUCED:			
SALE VALUE AT $ 44.00 /CWT	$ 9816.40	101.20	
PURCHASE COST AT $ 44.00 /HEAD .	4400.00	44.00	
DEATH LOSS (3.0%)		1.36	.72
VALUE PRODUCED	5416.40	55.84	29.39
FEED REQUIREMENTS/HEAD AND COSTS:			
BARLEY 13.73 BU AT $ 1.80 ..	2397.30	24.71	13.01
PROSUP40% .54 CWT AT $ 11.00 ..	580.10	5.98	3.15
(MIN,VIT,ANTIB INCL IN PROT SUP)			
TOTAL FEED COST	2977.41	30.69	16.16
OPERATING COSTS:			
INTEREST ON ANIMALS (9.5%)	134.49	1.39	.73
SELLING AND BUYING COSTS	291.00	3.00	1.58
OTHER OPERATING COSTS	388.00	4.00	2.11
TOTAL OPERATING COSTS	813.49	8.39	4.41
TOTAL FEED & OPERATING COSTS	3790.90	39.08	20.57
RETURN FOR LABOR & FACILITIES	1625.50	16.76	8.82

RETURN PER HEAD FOR LABOR & FACILITIES WITH DIFFERENT PRICES

SELLING PRICE/CWT	WHEN PURCHASE COST PER HEAD IS: 40.00	42.00	44.00	46.00	48.00
40.00	11.81	9.68	7.56	5.43	3.31
42.00	16.41	14.28	12.16	10.03	7.91
44.00	21.01	18.88	16.76	14.63	12.51
46.00	25.61	23.48	21.36	19.23	17.11
48.00	30.21	28.08	25.96	23.83	21.71

BREAK EVEN SELLING PRICES THAT WILL COVER FEED, OPERATING AND $ 7.00 PER HEAD FOR LABOR AND FACILITIES.

PURCHASE PRICE/HEAD	WHEN BARLEY PRICE PER BU IS: 1.50	1.65	1.80	1.95	2.10
40.00	36.12	37.01	37.91	38.81	39.70
42.00	37.04	37.94	38.83	39.73	40.62
44.00	37.97	38.86	39.76	40.65	41.55
46.00	38.89	39.79	40.68	41.58	42.47
48.00	39.81	40.71	41.61	42.50	43.40

SHEEP AND LAMBS

AT A GLANCE: Slaughter lamb prices were strong through the first half of 1978 but dropped sharply throughout the summer in response to declining fed beef prices. Slaughter lamb prices are expected to increase some from late summer levels over the remaining months of 1978 due to a slight decline in seasonal slaughter and some increase in demand. Feeder lambs will continue to sell at prices about $5 per cwt. above slaughter lambs. Fed lamb prices during the first half of 1979 should return to the high $50 to mid-$60 per cwt. range.

Native Ewe Flock

The number of sheep and lambs on U.S. farms and ranches on January 1, 1978, totaled 12.4 million head, down 0.3 million head from year earlier levels. This decline reflected the trend which has persisted since 1960. According to the estimates shown in table 1, the number of sheep in inventory will probably be about the same at the end of 1978. The favorable returns experienced in the sheep industry in recent years should begin to make sheep somewhat more attractive than they have been. Therefore, some leveling off of sheep numbers might be expected in the future.

Table 1. U.S. Sheep And Lamb Balance Sheet (Million Head)

Item	1976	1977	1978*
January 1 Number			
Stock Sheep	11.4	11.0	10.8
On Feed	1.9	1.7	1.6
Total	13.3	12.7	12.4
Lamb Crop	8.9	8.5	8.0
Net Imports	-0.3	-0.3	-0.2
Total Supply	21.9	20.9	20.2
Slaughter	6.9	6.6	6.1
Other Disappearance	2.3	2.2	2.1
Total Disappearance	9.2	8.8	8.2
December 31 Number	12.7	12.0	12.0

* Partially estimated

The 1978 lamb crop was estimated at 8.0 million head. This was down 7 percent from year earlier levels.

Commercial sheep and lamb slaughter over the first 6 months of 1978 totaled 3.7 million head, 15 percent fewer than were slaughtered through mid-1977. Sheep and lamb slaughter over the third and fourth quarters of 1978 will be down at least 15 percent from year earlier levels. Part of this decrease, however, will be offset by higher slaughter weights. Therefore, total lamb meat production this fall will fall below fall 1977 levels by 10 to 12 percent.

Fed lamb prices again this year showed a sharp seasonal increase from January through the peak in February when they peaked at near $80 per cwt. Fed lamb prices then fell by over $20 per cwt. from February to the current level in the low $60's per cwt. This drop reflected a normal seasonal downturn in lamb prices along with weakness in beef prices.

Fed lamb prices are expected to decline some from current levels through the fourth quarter of 1978, putting them in the mid to high $50 per cwt. range, basis South St. Paul.

Wool prices have continued to be strong in the face of reduced world supplies and increased demand. Wool prices are expected to range about the same as year earlier levels through much of the 1978-79 marketing year.

Profits to native ewe flocks should be nearly as good again in 1979 due to expected continued strong fed lamb prices and about the same production costs. For the average herd flock owner, the breakeven level on a 105 pound lamb would be around $45 to $50 per cwt.

Table 2. Projected Average Cost Per Ewe

Feed Costs*	Per Ewe
Protein and Minerals	$ 1.85
Corn	12.40
Hay	30.00
Pasture	5.00
Total Feed	$49.25
Labor and Facilities	$12.00
Other Costs	7.00
Total Costs	$68.25**

* Prices used are: corn $2 per bushel; hay $50 per ton; protein $8 per cwt.

** Assuming 1.4 lambs sold per ewe and a $1.50 credit for 20 percent cull ewe sales, this would mean a breakeven of $46 per cwt. per 105 pound lamb sold.

Outlook For Lamb Feeding

Lamb feeding returns in the 1977-78 feeding year were again very good due in large part to the sharp upturn in prices over the winter marketing period.

Feeder lamb supplies for the 1978-79 feeding year will be less than a year ago, reflecting the drop in the 1978 lamb crop. Demand for this lamb supply will be as strong as a year ago due to the strong profits this year and the large expected feedgrain supply.

Feeder lamb prices are expected to weaken some from current prices over the fall months and average in the low to mid-$60's per cwt., basis South St. Paul. This will put them $20 per cwt. above levels of a year earlier.

Fed lamb prices should continue to be strong in the first half of 1979. A normal seasonal upturn in prices should be expected into the winter and spring months of 1979, but will not peak as high as was the case for the last 2 years. Fed lamb prices will likely range in the high $50 to low $60 per cwt. level through much of this period.

Table 3. Typical Feedlot Costs Per Feeder Lamb, 75 Pounds In - 110 Pounds Out, And Breakeven Prices

Feedlot Costs

Feed Costs	$ 9.00
Building Equipment	.50
Labor and Management	1.25
Other Costs	3.25
Total Costs	$14.00

Breakeven Lamb Feeding Prices At Various Laid-In Prices

Laid-In 75 Pound Feeder At Price Per Cwt.	Net Sale Shrunk Weight Of 105 Pounds Price Needed To Cover All Costs
$56	$53.33 per cwt.
58	54.75
60	56.20
62	57.61
64	59.05
66	60.47

Lamb feeders could cover all estimated costs at fed lamb prices of about $57 per cwt. if feeder lambs can be purchased below $62 per cwt. this fall and if feedlot costs are as estimated in table 3.

POULTRY

AT A GLANCE: With high consumer incomes and lower supplies of red meats, poultry product demand continues strong. Egg production is expected to run below year earlier levels for the next 8 to 9 months. Egg prices should reach 65¢ (New York Cartoned basis) late this fall and run 3¢ to 8¢ above year earlier levels for much of 1979. Turkey production, on the other hand, is moving up and could be 8 to 9 percent above year ago levels by mid-1979. This could result in price declines down to 53¢ to 57¢ per pound by mid-1979.

EGGS

Production And Price

Egg production during the first half of 1978 ran 3.5 percent above a year earlier because of a larger laying flock and record high output per hen. Numbers of layers have declined during the summer and are expected to be below year earlier levels this fall and through early 1979.

Egg prices (New York Cartoned basis) are expected to rise into fall to levels of 63¢ to 65¢ by the end of the year. 1979 prices are expected to follow a seasonal pattern similar to 1978 through late summer, running 3¢ to 8¢ higher for much of the year. Late spring prices will likely be in the mid-50's before seasonal recovery to the mid-60's by late summer.

Factors To Watch

Watch flock molting data for increases. Also, watch chick hatch as the gross margins continue to indicate profitable production. As both increase, production increases will follow and prices will decline. Cold storage egg stocks were down from a year ago in June, hence, current production will have a greater influence on price.

Management Implications

There is some economic merit in tying up funds by forward contracting feed this fall. In particular, soybean meal prices are likely to strengthen through the winter. If delivery can be taken (storage available), harvest time purchase of grain should also be considered.

A "sharp pencil" and some figuring is needed before any decision is made to expand. The 2-year price and production cycle is still there, though its effects are currently tempered by the feed cost and red meat situation.

TURKEYS

Production And Price

Turkey production in the first half of 1978 ran 9 percent above year earlier levels. Current indications point to second half production 4 to 5 percent above 1977. Because of good returns in much of this year, production during the first half of 1979 could be pushed 8 to 9 percent above first-half 1978.

Turkey prices have been strong in spite of increases in production through much of 1978, largely because of the sharply higher red meat prices. With continued strong demand, prices should be at 65¢ levels for hens in New York this fall. The substantial production increases into 1979 will probably result in declining prices between 53¢ and 57¢ by the summer.

Factors To Watch

Favorable feeding margins will likely trigger increased production for 1979. Watch for indications that seasonal buyers have bought ahead.

Management Implications

It is a time to watch turkey stock reports, slaughter and chick hatchings. Cyclical adjustments continue as the norm for the industry.

Forward pricing of turkeys and feed should be considered regularly, but a manager needs to know and control his cost structure carefully to make the right forward pricing decisions.

Note: The Poultry and Egg Situation, an ERS-USDA quarterly release (March June, September and December) provides a poultryman with a substantial source of current data. It will provide most of what you need to be your own outlook analyst. A request to be placed on the mailing list may be sent to ERS-USDA, Washington, D.C. 20250. Content includes stock reports, trend data and economic analysis.

AGRICULTURAL STATISTICS

The Crop Reporting Board of the Economics, Statistics and Cooperative Service issues periodic reports of crop and livestock production and related topics. Reports and dates of release are listed in the table below. For detailed contents of each report, write for "Crop Reporting Board Reports, 1978-79 Issuance Dates and Contents," available free. Order from ESC, USDA.

Reports are released from Washington, D.C., on the dates shown. Local segments of most reports are also issued on the same day at ESC field offices.

Ordering

Send requests for reports to: Crop Reporting Board
Economics, Statistics & Cooperative Service
United States Department of Agriculture
Washington, D.C. 20250

IMPORTANT USDA REPORTS AVAILABILITY

Title	1978	1979
Crop Reports	Sept. 12, Oct. 11, Nov. 9	Monthly
Grain Stocks	Oct. 23	Quarterly
Cattle On Feed	Sept. 14, Oct. 18, Nov. 14, Dec. 14	Monthly
Hogs And Pigs	Sept. 20, Dec. 21	Quarterly
Cattle Inventory	--	Feb. and July
Sheep And Lambs On Feed	Nov. 15	Jan., March, Nov.
Eggs, Chickens And Turkeys	Sept. 21, Oct. 20, Nov. 20, Dec. 20	Monthly
Milk Production	Sept. 13, Oct. 12, Nov. 13, Dec. 12	Monthly
Agricultural Prices	Sept. 30, Oct. 31, Nov. 31, Dec. 31	Monthly