MINNESOTA
farm business NOTES

NO. 435 ST. PAUL CAMPUS, UNIVERSITY OF MINNESOTA NOVEMBER 1961

PARTICIPATION IN THE 1961 FEED GRAIN PROGRAM

H. R. Jensen and W. B. Sundquist[1]

In spring 1961 a large number of farmers had the choice of whether to participate in the current feed grain program. They also had choices as to the extent they would participate. For example, most Corn Belt farmers could retire either 20 or 40 percent of their base acreages of corn.

Many groups of people besides farmers—policymakers, program administrators, and extension workers—were keenly interested in this choice-making situation. This widespread interest stimulated us to determine the reasons for the choices farmers made.

THE SAMPLE

Shortly after the 1961 Feed Grain Program began, we mailed a short questionnaire to 334 farmers in the Southwestern and Southeastern Farm Management Associations. We received 226 replies, 66 percent. The specific purposes of the questions were to discover: (1) the important reasons why farmers decided for or against participation in the program, and (2) the relative importance of these different reasons.

The sample of farmers questioned is not representative of all Minnesota farmers. The reasons obtained do not permit us to say "These *are* the reasons in *exactly* their relative importance." Nevertheless, we obtained some general insight into the considerations underlying farmers' decisions on management and on a particular farm program.

PROGRAM PARTICIPATION

Of the 226 farmers who replied, 142 (63 percent) entered the program. This percentage is somewhat higher than the 50 percent recorded for the state as a whole. Seventy percent of the farms in the Southwest entered the program and 55 percent in the Southeast.

However, the total acreage diverted may have been as high in the Southeast as in the Southwest. A larger percentage of the sample farmers in the Southeast than in the Southwest diverted 40 percent of their corn base—33 and 23 percent, respectively. On 63 percent of the total 142 participating farms, 20 percent of the base was diverted.

REASONS FOR OR AGAINST PARTICIPATION

We thought that whether farmers feed the corn they raise or sell it as a cash crop might influence their participation decision. Only 32 percent of the participants but 74 percent of the nonparticipants usually feed all the corn they raise. Hence, this appears to have been a significant consideration for many farmers.

We also asked the farmers who decided to take out 20 percent of their acreage in the 1961 price-support program for corn if they expected to buy corn to feed out their livestock. Only 36 percent of the participants thought they would need to buy corn as compared with 65 percent of the nonparticipants. This difference indicates that having to buy corn as a consequence of going into the program affected farmer decisions.

Responses also suggested that the size of the corn acreage base (1959—1960 average) might have influenced farmers. The corn base for participants averaged 139 acres compared with 102 for nonparticipants.

The base yield per acre provided for individual farmers could conceivably be lower, higher, or about equal to the farmer's expected per acre yield for corn in 1961. We presumed that a base yield that was low relative to the expected per acre yield could induce farmers to stay out of the program.

The expected corn yield for the 142 participants averaged almost 17 bushels higher than their average base yield. The expected corn yield for the 84 nonparticipants averaged a little more than 19 bushels higher than their average base yield. Therefore, the difference between base and expected yields appears not to have been a determining factor generally.

Furthermore, the expected overall participation was probably not a factor influencing participation by individual farmers. We had reasoned that a farmer might be less likely to join if he thought a large percentage of the nation's farmers would take part in the program.

Instead, he might act on the expectation that the free market price on corn would be close to the support price. With no reduction or an increase in his corn acreage, the farmer would then produce a higher income from nonparticipation. However, participants essentially expected the same percentage participation on a national basis as the nonparticipants—almost 40 percent as compared with 41 percent.

The feeling of obligation to participate in the program since it was a part of our national agricultural policy appears to have affected farmer decisions. More than half, 51 percent, of the participants felt obligated to participate in the program. But only 7 percent of the nonparticipants felt this obligation. For these 7 percent, other considerations must have determined their final decision.

Moreover, farmers apparently related the rate of signup in the 1961 Feed

[1] Professor of agricultural economics, University of Minnesota and agricultural economist, ERS, USDA, respectively.

Grain Program to the likelihood of price-support programs for agriculture in the future. Our survey shows that 79 percent of the participants but only 68 percent of the nonparticipants thought that the rate of signup would have an influence.

We thought, furthermore, that if farmers expected the market price of corn in the late fall or early winter of 1961 to be close to the support price, they would be more likely to stay out of the program. Both participants and nonparticipants expected the unsupported market price to be well below the guaranteed loan price. As an average, the participants said 92 cents and the nonparticipants 94 cents.

However, the range of expected prices was much greater for participants. A larger proportion of participants than nonparticipants expected a price lower than the average. Hence, it seems that the expected unsupported market price of corn influenced the choice of a number of farmers.

The ability to operate without hired labor because of the reduction in corn acreage through the program also appears related to participation decisions. In 1960, 30 percent of the participants and 40 percent of the nonparticipants operated their farms without hired labor. Participation in the 1961 Feed Grain Program meant that 12 percent more of the participants but only 4 percent more of the nonparticipants could operate without hired labor.

Thus, we found through the indirect questioning of our survey that participation is probably higher for farmers who:

1. do not feed all their corn.

2. would not need to buy feed corn if they participated.

3. have a larger than average corn acreage base.

4. feel obligated to join because the program is part of our national agricultural policy.

5. expect the existence of future farm programs to depend upon the success of this program.

6. could operate without hired labor only if they participated.

Participants and nonparticipants did not differ as groups in appraisal of:

1. differences between the per acre base corn yield and the expected per acre yield of corn for 1961.

2. the percentage of the nation's farmers they expected to participate.

3. the expected difference between the support price and the fall 1961 unsupported market price for corn.

Only the last factor seems to have been a consideration for a number of farmers.

In addition to the indirect questioning, we obtained information by direct questioning. We asked farmers to check and/or list their *most important* reason for deciding whether to participate. A number of farmers, however, gave more than one reason.

The most important reasons for participating, together with the percentage distribution of answers, are:

	percent
Higher net income	18
Lower but surer net income	18
Feeling of obligation	24
Savings in labor and machine hire	15
Other reasons	25

These other reasons in order of frequency are: reduction of corn acreage fits into crop plans, marginal land, landlord's idea, health, behind in spring work, to be eligible for loans on corn and beans, etc.

The chief reasons for not participating, along with the percentage distribution of answers, are:

	percent
Needed the feed	45
Opposed controls	23
Higher net income	17
Other reasons	15

In order of frequency, these other reasons are: something wrong with the program—inequitable, unjust, base too low or started too late, disturbs cropping plan, leasing problems, don't want to add to surplus, ineligibility, land too widely scattered, and 2 poor corn years preceding.

This survey suggests that the reasons and the factors underlying the choice of participation in the 1961 Feed Grain Program are numerous and varied. This is to be expected since each farmer evaluates such a program in terms of his particular resource situation and his values.

Many Red River Valley Farmers Could Handle More Land

H. R. Jensen

Recently, 148 Red River Valley farmers cooperated with the College of Agriculture in a survey of their 1960 farming operations. One objective of this survey was to determine whether farmers considered themselves to be operating at capacity. Or, did they think they could operate even larger units, if land were available.

The Sample

The farmers surveyed operate farms located in the western parts of Clay, Norman, and Polk Counties—the center of the Valley. These farmers are, by and large, cash grain farmers. Many of them also produce sugar beets and/or potatoes.

The sample was randomly selected from eight different size groups of farms. These size groups ranged from 53 to 135 crop acres in the smallest to 856 crop acres and over in the largest group.

To fulfill our objective, we asked the farmers these questions:

Could you operate more land with your present power, machinery, and labor? Yes____ No____

1. If yes, how much more? _____

2. If no, what limits you most?
power____ machinery____ labor____

MINNESOTA
farm business
NOTES

Prepared by the Department of Agricultural Economics and Agricultural Extension Service.

Published by the University of Minnesota Agricultural Extension Service, Institute of Agriculture, St. Paul 1, Minnesota.

Table 1. Percent of farm operators by size of farm who felt they could operate more land with their present equipment and labor

Farm size (crop acres)	Percent who said they could
53 to 135	76
136 to 175	82
176 to 240	74
241 to 320	76
321 to 450	78
451 to 675	61
676 to 855	66
856 and over	55
Overall percentage	70

Table 2. Percent of farm operators by size of farm who felt it would pay to add more land

Farm size (crop acres)	Percent who said it would pay
53 to 135	86
136 to 175	82
176 to 240	74
241 to 320	95
321 to 450	72
451 to 675	61
676 to 855	80
856 and over	45
Overall percentage	74

3. Do you think it would pay you to operate more land? Yes____ No____

An analysis of the answers suggests that the press to add more land to existing farming units is likely to continue. Of course, the pressure could decrease if these farmers decided to intensify; that is, to add more capital (say in the form of livestock) to existing acreages.

Those Who Could

Of the 148 farmers interviewed, 104 (70 percent) said they could operate more land with their present power, machinery, and labor. Moreover, 109 (74 percent) thought it would pay to add more land (see tables 1 and 2). This means that some farmers who said they could not operate more land with their existing power, machinery, and labor thought it would pay to acquire more of these resources together with more land.

About three-fourths of the farmers who operate 450 acres of land or less said they could handle more land with their present equipment and labor. Somewhat smaller proportions (55 to 66 percent) of the farmers who operate larger farms thought they were equipped with power, machinery, and labor to operate more land.

We then asked these farmers how many more acres they could operate with their present labor and equipment. The most frequent answer (given by 33 farmers) was a quarter section. The bulk of the farmers (89 of the 104) who said they could farm more land with their existing labor and equipment felt they could handle from a quarter section to a section (see table 3).

Typically, the larger the farms the larger the additional acreages these farmers said they could operate with their existing equipment and labor. For instance, operators on farms with 451 to 855 crop acres gave no answers below 160 additional crop acres. Farmers with 856 or more crop acres gave no answers below an additional half section. Moreover, the typical reply in this latter group was an additional section.

These data suggest that the labor-saving technology (power and machinery) that has been brought on to these farms has outrun the opportunities of the operators to acquire land. Hence, the existing power, machinery, and labor on a considerable number of farms are being used below capacity.

Some excess capacity, no doubt, exists as an adjustment to weather risk, uncertainty, or convenience. However, the interviews did not relate whether farmers had these considerations in mind when they indicated how much additional land they could handle.

Table 3. The additional acres of land farmers said they could handle with their existing power, machinery, and labor

Number of farmers	Additional acres
2	under 80
8	80
2	81 to 159
33	160
14	161 to 319
18	320
16	321 to 639
8	640
1	over 640
2	didn't know
104	

Those Who Could Not

But what about the 44 (30 percent) of the 148 farmers who said they couldn't handle more land with their existing power, machinery, and labor? What resource or resources limited them most?

The answer most frequently given to this question was labor. This was most limiting for 26 of the 44 farmers (see table 4). Next in order of frequency was power and machinery or machinery alone (12 out of 44).

Table 4. Number of farmers who said they couldn't operate more land and the resources that limited them to their current acreages

Farm size (crop acres)	Limiting resources				
	Power and labor	Labor	Power and machinery or machinery	Power, machinery, and labor	No answer
53 to 135	0	2	2	1	0
136 to 175	0	1	1	0	0
176 to 240	0	3	2	0	0
241 to 320	0	4	0	1	0
321 to 450	1	3	0	0	0
451 to 675	0	5	3	0	1
676 to 855	0	3	1	1	0
856 and over	0	5	3	1	0
Totals	1	26	12	4	1

RECENT PUBLICATIONS

Several recent publications pertain to farm tenure arrangement. Additional titles will be published next month. Obtain copies from your county agent or the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1, Minnesota.

Family Farm Transfers, and Some Tax Consideration, Special Bulletin 436, Michigan State University.

Your Farm Renting Problem, Farmers' Bulletin 2161, U. S. Department of Agriculture.

Your Farm Rent Determination Problem, Farmers' Bulletin 2162, U. S. Department of Agriculture.

THE OUTLOOK CORNER

The Feed Picture

Supplies Available

The supply of feed grains and other feed concentrates available for the 1961-62 feeding year will total 252 million tons. This is 7 million tons less than last year's record supply—a reduction of 3 percent. This reduction follows 8 years of increasing supplies.

Total feed grain production of 137 million tons this year will be about 11 percent less than last year's record. The amount of imports and other feed fed, which totaled 31 million tons, is not expected to change greatly in the year ahead. However, a record carryover of 84 million tons of feed grains from 1960 brings the total supply available to 252 million tons.

Expected Utilization

About a 2-percent increase in the number of grain-consuming livestock is expected in 1961-62. Therefore, feed supplies will be equal to about 1.5 tons per animal unit—4 percent less than last year.

The feeding rate per animal unit in the year ahead is likely to decrease slightly. Thus, the upward trend from .74 tons in 1956-57 to .90 tons in 1960-61 will be halted. Smaller feed concentrate supplies coupled with higher feed prices are expected to cause this. However, if the feeding rate in 1961-62 is near the average of the past 3 years, the total amount of all concentrates fed will be about 148 million tons. This will be about the same as in the past 2 years.

Industrial, food, and export use are likely to equal about 23 million tons. This is a slight decrease. If total utilization does not exceed 173 million tons in the year ahead, the carryover into 1962-63 will be 79 million tons. This will be about 5 million tons less than the amount carried into the 1961-62 feeding year.

Feed Grains

The reduction in the available supply of feed concentrates was caused mainly by cropland retirement under the 1961 Feed Grain Program. Participation in the program resulted in an 18 percent reduction in corn acres planted. However, favorable weather for corn raised the October estimated average yield per harvested acre to a record 60.5 bushels, 11 percent above last year.

The 1961 corn crop to be harvested for grain was estimated in October at 3,527 million bushels, 364 million below last year's record production. Furthermore, the carryover from last year is about 1,998 million bushels. This brings the total supply available to 5,526 bushels, 153 million below last year's record supply.

For sorghum, there was a 26 percent reduction in total acres planted. The 1961 crop was estimated at 478 million bushels in October—21 percent below last year's crop. However, the large carryover brings the estimate of the total supply for 1961-62 to 1,179 million bushels. This is only slightly smaller than the 1960-61 record.

Drought conditions in the northern plains reduced the oat and barley crops. The oat crop for this year was estimated at 994 million bushels, 14 percent less than in 1960. The carryover of 324 million bushels on July 1 brings the total supply to 1,323 million bushels, 7 percent smaller than in 1960.

The barley supply is estimated at 552 million bushels, 9 percent below 1960. The smaller supply is due largely to an 11-percent reduction in the crop size.

Oilseed Meal

Larger oilseed meal supplies are expected in 1961-62. The soybean crop this year is 29 percent above the 1960 crop. It is the largest on record. This will provide more beans for both export and crushing. The crush is likely to be 6 percent greater than last year.

Cottonseed and linseed meal are expected to be about the same or slightly below last year. Flax reduction declined substantially. However, our exports are also expected to decline so the amount available for crushing will be approximately the same.

Hay

The 1961 hay crop was estimated in October at 113 million tons, 5 million less than in 1960. However, a 6 million ton increase in the May 1 carryover will bring the total supply to slightly above that of last year. In Minnesota, hay production was estimated on November 1 at about 7 million tons. This is about ½ million below last year.

Table 1. Feed concentrate balance, United States year beginning October 1

Source and use	Average 1955-59	1960-61	1961-62
	millions, tons		
Carryover	52	75	84
Production	133	154	137
Imports and other feeds	28	30	31
Total supply	213	259	252
Utilization	154	175	173
Year end carryover	59	84	79

Cooperative Extension Work in Agriculture and Home Economics, University of Minnesota, Agricultural Extension Service and United States Department of Agriculture Cooperating, Skuli Rutford, Director. Published in furtherance of Agricultural Extension Acts of May 8 and June 30, 1914.

Agricultural Extension Service
Institute of Agriculture
University of Minnesota
St. Paul 1, Minnesota
SKULI RUTFORD, Director
Cooperative Agricultural Extension Work,
Acts of May 8 and June 30, 1914
OFFICIAL BUSINESS
11-61 2350

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300