PARTICIPATION OF OREGON WHEAT FARMERS IN THE 1957 SOIL BANK

by

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Surpluses in United States agriculture have been present or threatening for several decades. Except during wartime, or in the aftermath of war, production has been in excess of what the people of this country would buy and more than we could export at satisfactory prices. The demand has not been keeping pace with the supply.

Farming is highly competitive and its production patterns are substantially different from those of most industry. The quick rises and falls in response to business fluctuations and changes in demand are well known in industry. On the other hand, a factor that is not so well recognized is that the production effort in farming, and the resulting output in food and fiber, seldom changes materially from one year to another. We refer to agricultural output in the aggregate. Only twice in 35 years did output fall more than 5 percent from the preceding year’s level. Even in these two instances the decreases could not be ascribed to a downward shift in the aggregate demand (14, p.67).

A similar supply condition exists for the various commodity groups within agriculture. As a result of the comparative advantage which their product holds and
sometimes because of their inertia to change, each group continues to produce the same commodity each year to the full capacity of its resources. Of necessity most farmers go on milking about the same number of cows and feeding about the same number of cattle because they produce and have available about the same amount of feed year after year. Wheat farmers in the Plains continue to raise wheat, and cotton growers in the South continue to grow cotton.

The competitive nature of farm production is one of the reasons for the constancy of the agricultural supply function. Since he is but one of hundreds of thousands, each farmer knows that by his own individual action he cannot influence the overall supply of the product he produces. Whenever a surplus of his product develops with an attendant sharp fall in prices, the farmer feels he hurts himself least by continuing to employ his resources to the fullest extent.

The competitive structure of agriculture is also highly conducive to the introduction of new technology. Competition makes it necessary for farmers as producers to adopt the new technology or find themselves at a disadvantage relative to others who do so. This is a situation which is in contrast with many oligopolistic industries. Here the number of firms in competition with each other is so small that they can decide to adopt a new technique or
postpone doing so in light of the demand for the product which they produce.

In the secular long run, the growth in the supply of farm products has outstripped the growth in the demand. Two powerful economic forces have been mainly responsible for this trend. On the supply side we have had a steady and rapid introduction of new technology into agriculture. Since 1940, output per worker has increased 60 percent \((1, \text{p.224})\) and the tendency for continued improvement seems to go on unabated. The main force responsible for the lag in demand has been the low income elasticity for farm products. American people, on the whole, already have incomes high enough to buy all the food they want. Consequently as their incomes increase, they buy more of other things and spend little additional on food purchases. Hence, demand for farm products increases at a much slower rate than the demand for other products in our economy.

The imbalance existing between supply and demand has a depressing influence on farm prices. The inelastic demand for farm products causes a sharp drop in the price of a commodity whenever a small surplus of that commodity appears on the market. In the case of nearly all farm products, a large output brings a smaller total income than a small output.
The Supply-Demand Situation for Wheat

Wheat is one of the products of our farm economy that has been most persistently in excess production. Rapidly improving technology has been an important factor in contributing to this overproduction, but the two World Wars gave additional impetus to the production of more wheat. It was official policy during World War I and in the latter part of World War II to stimulate greater wheat production. Farmers responded to this call by breaking up new land. Higher prices paid for wheat during these periods also brought land into wheat that had previously been growing other crops.

Most of the new land that was broken from the sod remained as wheat land following the two wars. In addition, much of the land that had been diverted from other crops continued to grow wheat after the Second World War. Heavy demand kept wheat prices high following World War II and in more recent years wheat prices have been supported by the government at a higher level than open market prices would bring.

The demand for wheat is one of the most inelastic of all farm commodities. Whenever the government has not intervened to keep prices from falling too rapidly, the aggregate returns to wheat farmers have been smaller when the crops were large than were the returns they have
received from smaller crops. A small surplus causes a comparatively large drop in price.

The income elasticity for wheat is negative. This means that as the incomes of American families rise, their consumption of wheat products goes down. Wheat consumed for food in the United States decreased from an average of 310 pounds per person in 1909 to 177 pounds in 1954. Total amount of wheat eaten changed little between 1909 and 1954, although there were 68 million more people in 1954 than in 1909 (7, p.1).

The export market, which has been a chief safety valve for wheat surpluses in this country, has proved very uncertain over the years. Following World War I many countries that had formerly furnished important markets for American wheat were striving for greater self-sufficiency in wheat. To help fill the declining markets, other exporting countries like Canada, Argentina, and Australia were offering increasing competition. Like the United States, these countries had expanded their wheat acreages under the stimulus of war demands.

Export markets continued on a small and uncertain basis till World War II. Then during the war and for a number of years following the war the foreign market for wheat once again was favorable for exports. But as the importing nations recovered from the effects of the war
they have again curtailed their wheat purchases. This has resulted in an accumulation of record high stocks of wheat in the exporting nations.

The Wheat Problem

The first important cost-price squeeze that the American wheat growers experienced came in the 1920's. Prices of wheat dropped more than 50 percent from 1919 to 1929 while the prices of things farmers used to produce wheat stayed high. In 1929 the purchasing power of a bushel of wheat was only three-fifths of what it had been in 1919. Though farmers were raising almost as much wheat, it was bringing only 46 percent as much income (10, p.14).

The twenties were a period in which farmers made a determined struggle to gain bargaining power. They saw processors and manufacturers control their production to a degree that let them bargain for a satisfactory price. The farmers set up marketing cooperatives to try to imitate this market organization, and these coops were to provide farmers with similar powers over their own selling price. They were making a spirited stand against industrial and commercial domination.

The cooperatives, however, were not able to control the actions of non-members, nor even the actions of some of their members, and the marketing coops largely failed as a
bargaining instrument. Farmers were reluctant to accept the theory of economic scarcity--rather they preferred to produce capacity crops and look for government aid to sell them. It was largely this failure of wheat producers as a group to adjust their production to the demand that brought about the intervention of government on their behalf.

Government programs have been primarily concerned with the fundamental need of bringing supplies into line with demand. The Agricultural Adjustment Act of 1933 tried to get farmers to reduce their wheat acres in return for benefit payments which were financed out of processing taxes. The wheat surplus which had been built up in the early thirties was reduced to manageable size by 1936. The adjustment act helped to move several million acres out of wheat production but the drought of the mid-thirties was given the major credit for reducing the surplus.

With the return of favorable crops and the continued lack of foreign markets, surpluses returned. A new agricultural act was passed in 1938. This act included acreage allotments and marketing quotas to help keep down excess production. The price of wheat was to be supported somewhere between a maximum and a minimum level. Loans were made available to farmers at the designated support price.

Under acreage allotments the penalty for non-compliance was loss of price support. Under marketing
quotas, producers were penalized for marketing or feeding products in excess of their quotas. These penalties applied to all producers, whether they participated in the program or not.

The acreage controls of the 1938 Act seemed to indicate less than complete success. With favorable growing weather and more intensive farming, even the smaller acreage planted kept adding to the large wheat stocks. Only the ever increasing demands of the war effort brought the large stocks down to workable size and high foreign demands kept them down for several years after the war.

Acreage allotments were reinstated for the 1950 crop year but with the outbreak of the Korean War they were immediately discontinued. In 1952 and 1953 however, world supplies of wheat were increasing again, and allotments along with marketing quotas were reimposed for the 1954 crop. In the past two years allotments have cut wheat acreage up to 40 percent from the base established in 1951 to 1953. Yet Commodity Credit Corporation stocks have been rising to new highs as each marketing year came to a close.

The idea of achieving for the farmer an income comparable to those in other walks of life, has been an apparent aim in all farm legislation. The principle of parity prices for agriculture was established with the program of 1933. The contention was that large economic
groups performing essential functions for society should have a fair share in the national income. The benefit payments were to be considered a form of compensation by the rest of society to farmers for their service in supplying food and raw material.

Many features in the different farm programs were designed to implement the concept of parity. The Agricultural Adjustment Act kept the domestic price higher than the world price by the amount of a processing tax. The Soil Conservation Act offered an acre payment for shifting land from soil depleting to soil building crops. Later acts made such provisions as nonrecourse loans that guaranteed to the farmer a given support price for his wheat when the market price was below this level. Direct parity payments were made in 1939 and during the early forties to allow farmers' incomes to reach a designated level. In recent years the government has maintained high price supports to the producer by accumulating and storing the excess production at its own expense.

In an effort to dispose of its large stocks of wheat the government has subsidized exports, donated for charitable purposes, sold in exchange for foreign currencies, and bartered wheat for strategic goods. These means of disposition have so far proved inadequate or politically objectionable.
Mechanization of cultural and harvesting operations has proceeded further with wheat than with any other major crop. Power machinery has completely displaced the horse and mule from every aspect of wheat production. The result is that now even the smallest of specialized wheat farmers has to have a minimum of several thousand dollars invested in machinery.

Land prices have been rising almost continually since they reached their lowest values in the depression of the 1930's. A number of factors are contributing to this steady rise in land values and in the continued demand for land.

Improved farm machinery increases the amount of land that one man can farm. An operator, therefore, needs to acquire more acreage to employ himself more nearly on a full time basis. Opportunities for part-time off the farm work in a wheat growing area are usually very limited. Similarly, when a farmer adds to his land supply he spreads the large overhead costs of his machinery over more acres.

Support prices on wheat have virtually removed one of the greatest uncertainties that wheat farmers at one time encountered--the price factor. With the price secure, only the weather factor would remain as a major element of uncertainty to the producer. If he has unemployed
resources and a favorable cost of production, he is willing to bid for additional land more readily than he did under less certain conditions.

We find then that wheat farmers have large investments in machinery and land. In connection with this investment they have large fixed costs like depreciation on their machinery and buildings. They have to meet recurrent capitalization costs on the unpaid portion of their investments. Land and property taxes have to be paid each year regardless of the amount of income the land or capital produce.

The wheat grower is confronted with a dilemma. His competitive position makes it necessary that he adopt improved technology and employ his resources to the fullest. He strives to produce a gross income that will not only cover his variable costs but yield enough over fixed costs to provide him with a comfortable standard of living. On the other hand, the complete employment of technology and resources works continually to increase the production of wheat. The resulting surplus brings with it either lower prices, or if the government supports the price, restrictions are placed on the use of production factors.

In the specialized wheat growing areas a reduction in the number of acres that can be planted to wheat results in a reduction of income. Acres diverted from wheat must
be planted to an alternative crop or left idle. But in large subhumid areas of this nation the best alternative crop usually produces a substantially smaller income per acre than does wheat.

Under humid conditions wheat is generally grown in rotation with other crops. Humid areas are more diversified and there are usually several crops that can be grown competitively with wheat. Thus when acres are shifted from wheat to another crop, farm incomes are not materially changed.

Many farmers in the specialized wheat areas feel that under an allotment program their wheat acres should be cut proportionately less than those of farmers in the humid areas. The acreage restrictions, they feel, affect their incomes more adversely than they do in the regions of greater rainfall. They also frequently express the opinion that the more humid areas have contributed to the surplus in greater proportion since the latest build up of wheat stocks began in 1952. It has been suggested that in regions where wheat was not historically an important crop, there has been a greater shift to wheat production under the inducement of high price supports.

In order to observe the production patterns of wheat in a specialized area compared with regions of greater diversification, a study was made of three subdivisions of
Oregon. This state grows wheat in areas that get as little as ten inches of precipitation a year and it is grown also in regions that receive as high as fifty inches of rainfall. The study examines both the acreage and production of wheat in the state over a seventeen year period.
The vagaries of weather and the nature of the market for wheat were historically the factors that determined the pattern for wheat production in this country. There is a general feeling, however, that since the passage of the Agricultural Adjustment Act in 1933, government programs have become an additional important factor in determining the amount of wheat that is produced.

Government programs have received credit in some cases for expediting adjustments of supply to demand. On the other hand, they have also been blamed for aggravating maladjustments by such incentives to overproduction as high price supports. In the semi-arid and subhumid areas, the effects of price supports have been blamed for returning to wheat production, land that had been more or less in permanent grass crops. Also some virgin prairie lands were added to the supply of wheat lands. In humid sections more acres were moved into wheat from alternative crops. When the price is guaranteed, the farmer in a humid area is largely assured of a given income from an acreage in wheat. The growing of competitive crops is more risky because of the uncertainty of the prices these crops will sell for. High support prices for wheat, furthermore, have been
partly responsible for increased use of fertilizer and other measures to increase production per acre. They have also contributed to more extensive use of high yielding wheat varieties that have a poor milling quality.

An attempt is made in this chapter to account for the fluctuations in wheat acreage and production in three subdivisions of Oregon for the period 1939 to 1955. Trends will be noted where these are indicated in the relatively short period of time considered. Note is also made of the relative contributions that each of the 3 regions has made to the overall production of wheat during the seventeen year period under study.

The Choice of Time Period Used

The period 1939 to 1955 was selected for study primarily because 1939 was the earliest year for which the U.S. Crop Reporting Service had complete information for the purposes of this study. The data obtained from this Service consisted of estimates of wheat acreage harvested for grain and total wheat production for each Oregon county in the years observed. For years prior to 1939, the information on acreage harvested for grain was available for the whole state only and was not broken down by counties or regions. The first estimates for the 1956 crop were not yet available at the time of this writing.
Although the period to be examined is relatively short, it nevertheless includes nearly the entire period during which support prices on wheat have been an effective part of farm legislation. The Agricultural Act of 1938 was the first act which required the Secretary of Agriculture to set a loan rate above a minimum level. The level was set at 52 to 75 percent of parity when the act was passed, but in 1941 it was increased to a flat 85 percent of parity and in 1942 the mandatory level was raised to 90 percent of parity. The 90 percent of parity level continued in effect through 1954; in 1955 the minimum level was 82.5 percent of parity. In the Agricultural Adjustment Act of 1933 the Secretary had been given a wide latitude in setting a loan rate.

The 1938 Act was passed too late to affect Oregon's 1938 winter wheat crop. The program was, therefore, not used fully for wheat until 1939.

A Description of the Areas

The sections into which the state was divided were The Columbia Basin, the Willamette Valley, and the remainder of Oregon. The three areas show various degrees of adaptability to substitute crops when wheat is a less profitable crop or when the use of its acreage is restricted.

The Columbia Basin wheat counties consist of Wasco,
Sherman, Gilliam, Morrow and Umatilla. These counties represent a specialized wheat growing area in a region of very low rainfall. Most of the wheat is raised in an alternate crop and fallow system in which one crop is taken from the land every two years. The rotation allows for sufficient moisture conservation and nitrification to permit plant growth on a profitable scale.

The general climatic conditions in this area are more favorable for the production of wheat than for any other crop. A study of alternative land use systems in the Columbia Basin was conducted by Nairn in the fall of 1954. His budgets indicate that alternative incomes, when expressed as a percentage of income from a basic wheat system, range from 64.4 percent for barley to 57.6 percent for grass (8, p.110). Much land of marginal character that was brought into wheat production during periods of high prices and favorable crop years is not well adapted to substitute crops.

A large portion of Umatilla county has climatic conditions that are more favorable for crop production than the rest of the five county area. In this region there are large sections that are cropped annually and such crops as peas, legume and grass crops are strong competitors of wheat. Since the data available, however, were for the whole county only, all of Umatilla was included in the specialized wheat area.
The Willamette Valley includes the counties of Benton, Clackamas, Lane, Linn, Multnomah, Polk, Washington and Yamhill. It is a highly diversified area which produces a wide variety of crops in quantity. The chief competitors for wheat are such seed crops as vetch, peas, grass and clover seed. In limited areas extensive development of fruits, nuts, truck and canning crops have been made at the expense of wheat acreage. The valley has a long growing season. Rainfall averages about 37 inches at the southern end and up to 50 inches in some parts of the northern end.

Outside the Columbia Basin and Willamette Valley, eight counties in Oregon harvested more than 5000 acres of wheat in 1955. These were Baker, Malheur, Union and Wallowa in the Snake River Basin and Jefferson, Klamath, Lake and Wheeler in the south and central parts of the state.

The eight counties are all east of the Cascade Mountain Range where rainfall on valley floors varies from 8 to 25 inches a year with 30 percent of the area getting 9 to 14 inches. Irrigated areas are found in all these counties but much of their wheat is grown on dry land. The lack of alternative crops on the dry land is nearly as acute as in the Columbia Basin. On irrigated land, however, there is a fair degree of diversification. The chief
substitute crops for wheat on irrigated acres are grass and legume seed crops and hay crops.

Sources of Data

The data for acres harvested, yields, and total wheat production in Oregon were obtained from the Crop Reporting Service, United States Department of Agriculture at Portland, Oregon.

In trying to account for the patterns in wheat acreage and production, the writer referred extensively to the "Agricultural Situation and Outlook". This is a publication about Oregon agriculture that is put out periodically during the year by Oregon State College cooperating with the United States Department of Agriculture. Unless otherwise documented, data quoted in the following analysis were obtained from various editions of the "Agricultural Situation and Outlook" for the period 1938 to 1955.

The Analysis

Wheat acreage harvested for grain in Oregon dropped nearly 31 percent in 1939 from a level of 1,068,000 acres in 1938. The new wheat allotment program which was a part of the Agricultural Act of 1938 became fully operative in 1939. Other factors that helped bring about the sharp drop in wheat acres, were the unfavorable price and market
outlook when plans were made for seeding the 1939 crop. At mid-July 1938, the index of the average farm price for wheat was only 52 percent of the 1926 to 1930 average. One year earlier this index had stood at 93 percent. The total U.S. supply of wheat was about 120 million bushels greater than a year before and the prospects for exporting wheat were less favorable owing to the increased production abroad. The low wheat price, to some extent, also reflected the general economic depression.

**Acreage Trends and Patterns**

Wheat acreage continued at a low level from 1939 to 1943. Allotments were in effect during this period and marketing quotas were employed in 1941 and 1942. In the two areas outside the Willamette Valley, the acreage patterns roughly followed those dictated by the size of the allotments. The acreage was higher in 1940 and 1941 than in the other 3 years (Figure 1). In 1939, 1942, and 1943 the national allotment had been set at 55 million acres each year while in the two intervening years 62 million was the allotted size of acres.

In the Willamette Valley, wheat acreage was on a steady decline during the same period. The decline can be attributed mainly to the larger acreages planted to grass and legume seed crops. In the years 1940 to 1944 the
Figure 1. - Acreage of wheat harvested for grain in 3 subdivisions of Oregon, 1939-55. Direct comparisons of percentage changes can be made on this semilogarithmic chart.
average acreage of seed crops in Oregon was 301,000 while in the period 1936 to 1939 these crops had comprised only 136,000 acres on the average. Most of Oregon's seed crops are grown in the Willamette Valley.

The agricultural conservation programs which had been introduced in the Soil Conservation Act of 1936 encouraged the larger plantings of seed crops and strengthened the demand for the seed. Imports of some seed crops were curtailed when the war cut off Europe as a source of supply. A further incentive to increase seed crop acres came in 1942 when the Secretary of Agriculture asked for a 57 percent increase in cover crop seeds. He also announced price supports for certain legume and grass crops and exempted seed crops from wartime maximum price regulations.

Even though wheat acreages were kept down during the early war years, supplies of wheat in the United States and other exporting nations had reached all-time high levels by mid 1942. Wheat yields in the exporting nations had been generally favorable. The world movement of wheat was restricted by wartime blockades and by the lack of export markets. Little wheat was being used as feed.

United States wheat growers, however, were getting higher prices despite the mounting surpluses. Most of the domestic surplus of wheat was being stored under
government loans to maintain the support price. But instead of seeking to prevent the accumulation of top-heavy government stocks, the growers pressed for legislation to increase the support price. By October 1942, they had managed to get the support level raised to 90 percent of parity. Most alternative crops, nevertheless, were selling at relatively better prices in the early war years because they were in greater demand.

In 1943 and for the remainder of the war years, the demands of the war effort began to take increasing supplies of wheat for industrial purposes and for the feeding of livestock. The Commodity Credit Corporation which had been storing the wheat placed under loan, offered large stocks to feeders at reduced prices. Many more millions of bushels were used in the manufacture of industrial alcohol. Wheat surpluses began to disappear.

Greater attention was also being paid to the demands upon this country for food. We had to produce enough food for our own purposes as well as help feed our allies and countries being liberated. It seemed necessary to shift agricultural production toward those products which would provide most good food for the least expenditure of farm and non-farm resources. Such crops as wheat, potatoes, dry beans, peas and other vegetables would produce most food per acre.
with the removal of acreage restrictions for the 1944 crop, wheat acreage swung sharply upward in each of the three areas studied and a generally upward trend continued until 1949. Although allotments had been removed, the war Food Administration continued to set goals for wheat acres. Producers were urged not to exceed these goals so that they could grow more of the other essential crops. But as the export demand rose sharply in the postwar years, the wheat acres kept increasing.

The domestic demand also increased in the postwar years. Cattle numbers were increasing and much wheat was used for feed to supplement the relative scarcity of feed grains and hay. Feed prices were high and wheat could therefore compete in the feed market. At mid-August of 1948 corn prices averaged 119 percent of parity. But the 1948 corn crop was very large and the 1947 and 1948 wheat crops were the largest ever produced in this country. These large crops set the stage for a return to acreage restrictions in 1950.

The demand for seed crops continued fairly strong in the period 1944 through 1951. But prices for these crops, though higher than during the early war and prewar years, had not made advances comparable to most grain and feed crops. On January 15, 1944 the United States average price of wheat stood at 98 percent of parity and by 1947
the price had risen to its highest levels since World War I. Price rises for feed grains were comparable.

The allotment program of 1950 called for a 17 percent reduction from Oregon's 1949 wheat acreage. The actual reduction turned out to be only 10 percent, with the Columbia Basin area contributing proportionately least to the decrease—approximately 6 percent.

Wheat acres resumed their climb in 1951 when restrictions were dropped because of the demands of the Korean War and an improved export market. The government continued to set goals for wheat acreage but these were far exceeded as the 90 percent of parity support price on wheat continued to make this crop so much more attractive than others. The market for coarse grains in the Pacific Northwest was very good from 1951 to 1953. Yet the price of these grains was not high enough to compete with wheat. Under the stimulus of high prices, wheat acreage harvested for grain in 1952 and 1953 reached the highest levels ever attained in Oregon.

With wheat priced out of the feed market and its export market declining, stocks began piling up fast in 1952 and 1953. The national carryover on July 1, 1953 was 562 million bushels. The result was a return to acreage allotments and marketing quotas in 1954. Oregon responded to production controls by reducing its 1954
harvested acreage by 26.5 percent from the 1953 acreage. In 1955 it cut its harvest by an additional 56,000 acres. The cut in summerfallow areas was eased somewhat in 1955. The Farm Act of 1954 provided for special adjustments that allowed farmers in these areas to add some acres to their original calculated wheat base.

With some modifications, the base on which the individual farmer's wheat allotment has been calculated since 1954, is the average of his wheat acres in the years 1951 to 1953. The size of his allotment is a certain percentage of this wheat base.

A comparison was made of the acreage reduction that each of the areas made in 1955, taken as a percentage of each region's wheat base. The results showed that the Willamette Valley had reduced its acreage by 19 percent. The Columbia Basin and the Remainder of Oregon showed a reduction of 29.4 and 29.5 percent respectively. The difference between the Willamette Valley and the rest of the state is explained at least in part by the fact that there were many new wheat growers in the Valley. Many who grew little or no wheat in the base period were now growing up to 15 acres. There were no restrictions on the use of wheat, where plantings did not exceed 15 acres.

A trend index was drawn up to show the relative acreage positions of the three subdivisions of the state
for any one year when compared with a given base period. The base years, 1943 to 1946, were chosen to represent a transition period. At first alternative crops had a relative price advantage over wheat and then the price relationship was reversed. Figure 2 shows the acreage index graphically.

The index for the years 1952 to 1955 and their average, is shown for each of the regions in Table 1. The table shows that the Willamette Valley harvested

Table 1. Index of wheat acreage harvested for grain in three areas of Oregon.

<table>
<thead>
<tr>
<th>Year</th>
<th>Willamette Valley</th>
<th>Columbia Basin</th>
<th>Remainder of Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>158.4</td>
<td>127.4</td>
<td>135.1</td>
</tr>
<tr>
<td>1953</td>
<td>176.8</td>
<td>128.7</td>
<td>153.5</td>
</tr>
<tr>
<td>1954</td>
<td>139.1</td>
<td>92.9</td>
<td>109.8</td>
</tr>
<tr>
<td>1955</td>
<td>124.5</td>
<td>87.9</td>
<td>97.8</td>
</tr>
<tr>
<td>1952-1955</td>
<td>149.7</td>
<td>109.2</td>
<td>124.0</td>
</tr>
</tbody>
</table>

nearly 50 percent more acres in 1952-55 when compared with the base period. The Columbia Basin averaged only 9 percent more acres while the Remainder of Oregon showed an increase of 2.4 percent. These figures indicate that, proportionally, the more diversified regions have stepped up their wheat acres to a considerably greater extent in
Figure 2. - Index of wheat acreage harvested for grain in 3 subdivisions of Oregon, 1939 to 1955
(1943-46 = 100)
recent years.

Apparently, though the Willamette Valley had a bigger share of Oregon's wheat acres in some other periods when the purchasing power of wheat was relatively high. In the census year 1929, for instance, the price of wheat was very favorable. When the same base years—1943 to 1946—are used, the Willamette Valley index in 1929 was 203. At that time, however, the Willamette Valley was much more attune to growing wheat. Such alternative crops as cover crop seeds weren't nearly so prominently in use then as they have been over the past 15 years.

**Yield and Production Trends**

Production of wheat in the 3 sections of Oregon follows somewhat the same trends as harvested acres. The patterns, however, are radically different in some instances. In 1941, for instance, when the Columbia Basin had its highest yield for the 17 year period, the Willamette Valley experienced its lowest. Similarly, in 1949 the Willamette Valley yields were above normal for the period while the Columbia Basin and the Remainder of Oregon had very low yields. Table 2 gives the yields for each area and for the state total in the years 1939 to 1955 and also the 17 year average.

Despite wide variations in yields between the areas
Table 2. Estimated yields for three subdivisions of Oregon and the state total, 1939-1955.

<table>
<thead>
<tr>
<th>Year</th>
<th>Willamette Valley</th>
<th>Columbia Basin</th>
<th>Remainder of Oregon</th>
<th>Oregon Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1939</td>
<td>25.5</td>
<td>20.2</td>
<td>21.1</td>
<td>21.1</td>
</tr>
<tr>
<td>1940</td>
<td>20.4</td>
<td>19.6</td>
<td>22.1</td>
<td>20.2</td>
</tr>
<tr>
<td>1941</td>
<td>19.0</td>
<td>31.8</td>
<td>24.3</td>
<td>28.9</td>
</tr>
<tr>
<td>1942</td>
<td>23.8</td>
<td>28.7</td>
<td>25.5</td>
<td>27.6</td>
</tr>
<tr>
<td>1943</td>
<td>26.2</td>
<td>23.8</td>
<td>23.8</td>
<td>27.6</td>
</tr>
<tr>
<td>1944</td>
<td>29.3</td>
<td>26.3</td>
<td>25.8</td>
<td>26.5</td>
</tr>
<tr>
<td>1945</td>
<td>25.4</td>
<td>23.0</td>
<td>25.7</td>
<td>23.7</td>
</tr>
<tr>
<td>1946</td>
<td>24.5</td>
<td>25.5</td>
<td>26.2</td>
<td>25.6</td>
</tr>
<tr>
<td>1947</td>
<td>26.3</td>
<td>21.6</td>
<td>25.0</td>
<td>22.8</td>
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<tr>
<td>1948</td>
<td>24.2</td>
<td>29.6</td>
<td>26.5</td>
<td>23.5</td>
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<tr>
<td>1949</td>
<td>26.7</td>
<td>21.5</td>
<td>18.9</td>
<td>21.5</td>
</tr>
<tr>
<td>1950</td>
<td>26.9</td>
<td>24.3</td>
<td>26.2</td>
<td>24.9</td>
</tr>
<tr>
<td>1951</td>
<td>25.1</td>
<td>29.6</td>
<td>24.7</td>
<td>23.2</td>
</tr>
<tr>
<td>1952</td>
<td>28.3</td>
<td>27.2</td>
<td>27.6</td>
<td>27.4</td>
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<tr>
<td>1953</td>
<td>24.0</td>
<td>28.2</td>
<td>29.9</td>
<td>28.1</td>
</tr>
<tr>
<td>1954</td>
<td>29.5</td>
<td>29.2</td>
<td>30.5</td>
<td>29.5</td>
</tr>
<tr>
<td>1955</td>
<td>30.4</td>
<td>25.4</td>
<td>28.4</td>
<td>29.6</td>
</tr>
<tr>
<td>17 yr. av.</td>
<td>25.6</td>
<td>25.9</td>
<td>25.4</td>
<td>25.8</td>
</tr>
</tbody>
</table>

In individual years, the table shows that for the period as a whole, yields in the 3 regions averaged very nearly the same. The 17 year average for the Columbia Basin was
only three-tenths of a bushel above the Willamette Valley and just half a bushel higher than the Remainder of Oregon.

Five year moving averages of wheat yields in the three areas of Oregon are shown in Figure 3. Over the 17 year period the Willamette Valley and the Remainder of Oregon show a clearly upward trend, with yields at the end of the period about 4.5 to 5 bushels higher than at the beginning. The Columbia Basin shows a decided upward trend in the latter half of the period, but in the first half it had another high point because of the very high yields in the 3 years 1941 to 1943.

Assuming a linear relationship between yields and time, a regression line was calculated for the Willamette Valley, the Remainder of Oregon, and for the state as a whole. A statistical test was made to determine if the slope of the regression lines in each case was significantly different from a horizontal line. The regression coefficient was found to be significantly different from zero at a probability level of .01 in both the Willamette Valley and the Remainder of Oregon. For the state as a whole the statistical test was just short of significance at the .05 level, indicating a probability level of .07.

The lack of trend to Columbia Basin yields can be attributed largely to the relative scarcity of rainfall in this region. Moisture is usually the limiting factor,
Figure 3. - Wheat yields in 3 subdivisions of Oregon; 5-year moving averages centered for years 1939-55 (yields per acre harvested).
and improving technology, therefore, doesn't have so great an influence on yields as it does in much of the rest of the state. Thus, with more moisture, Columbia Basin yields in the early forties were substantially higher than in the late forties, despite the improved practices which were employed in the latter period.

The Columbia Basin yields show the greatest fluctuations from year to year while Willamette Valley yields are the most uniform. The Remainder of Oregon shows the sharpest upward trend over the last several years of the study period. This is explained partly by the introduction of irrigation into Jefferson county. Irrigation helped raise the wheat yield of this county nearly 13 bushels per acre in 1951 to 1955 compared with 1946-50. Jefferson county's share of wheat acreage in the Remainder of Oregon area was about 15.6 percent for the study period.

Although yields in Oregon show a definite upward trend in the years 1939 to 1955, an upward trend would have been even more pronounced if the years 1929 to 1938 were to be included. The state's 17 year average yield of 25.3 shown in Table 2, is an increase of 6.2 bushels or 31 percent over the 10 year average for 1929-38. It is known that the most spectacular yield increases, from the first to the second period, were in the high risk counties such as Gilliam and Morrow in the Columbia Basin and Jefferson
in the Remainder of Oregon.

Total wheat production has reflected the upward trend in acres and yields, and in recent years stocks have become exceedingly large. In proportion to its production, the Pacific Northwest carryover has been even higher than the national. Oregon wheat growers are concerned about this large wheat supply, since only government action has kept their incomes from falling off more drastically in light of the huge surplus. Farmers in the summerfallow areas are particularly concerned since their welfare is so closely connected with wheat. They feel that since their land is economically adapted only to wheat, they should be allowed to grow this crop on more acres than the allotment program allows. Restrictions on the amount of wheat produced should be applied more severely to areas that have better alternative opportunities to wheat growing.

In line with this reasoning it is interesting to observe the relative contributions that each of the 3 areas in the study has made to Oregon's total wheat supply since 1939. Figure 4 shows the average annual Oregon production in 4 time periods and also indicates the percent of the state total that was produced by each region. The first period covers the 5 years 1939 to 1943 and the others are successive 4 year periods 1944-47, 1948-51, and 1952-55.
Figure 4. - Relative contributions of 3 subdivisions of Oregon to the state's average annual wheat production for the periods 1939-43; 1944-47; 1948-51; 1952-55.
The graph shows that in the last period—1952-1955, the Willamette Valley and Remainder of Oregon produced a greater proportion of Oregon's wheat than in any one of the 3 previous periods. The Columbia Basin's share in the last period was reduced by a like percentage. When the relative shares in the 1952-55 period are compared with the other 3 periods combined, we find that the Willamette Valley's share of the total was up 1.3 percent in the last period. The Remainder of Oregon's share increased 2.4 percent and the Columbia Basin share declined 4.2 percent in the last period.

Summary

The effect of price relationships on wheat is significant. In the more humid areas like the Willamette Valley and the irrigated parts of the Remainder of Oregon, wheat acreage is more responsive to price relationships than it is in the specialized wheat areas east of the Cascade Mountains.

When seed crops were relatively higher priced than wheat as in 1939 to 1943, wheat acres in the Willamette Valley fell off sharply (Figure 2). When the price relationship was reversed as it was generally in the years 1944 to 1955, wheat acres went up in the valley. In 1952 and 1953 when seed stocks were large and prices were
depressed, the switch to wheat was particularly significant. In 1953 all support prices on seed crops were dropped and in 1954, despite wheat allotment restrictions, wheat acreage in the Valley was still higher than in any year from 1939 through 1951.

In the Columbia Basin, because there are no good alternatives, wheat acres followed the pattern set by acreage allotments quite closely. But from 1944 until 1953 when (except in 1950) there were no allotments, wheat acreage rose substantially. This increase in wheat acres was made possible by breaking up new land and returning to wheat production land that had been taken out of wheat in the 1930's and placed in sod crops. In 1952 and 1953 there was, no doubt, also some double cropping of land in order to provide for a higher wheat base in anticipation of a return to allotments.

The Remainder of Oregon showed it was capable of expanding wheat acres further than the Columbia Basin. This is indicated by the higher index (Figure 2) attained in the postwar years when allotments were not in effect. Wheat acres in the Remainder of Oregon did not expand as far as in the Willamette Valley, however.

All areas showed a close relation between wheat acres, and government action to restrict or relax restrictions on wheat acreage. There was a sharp upward trend in
wheat acres when allotments were removed in 1944, and an abrupt curtailment of acres when allotments were reinstated in 1950 and again in 1954.

Yields showed a significantly upward trend in the period considered. Total production also increased, since the acres and yields were increasing. Of Oregon's total wheat production, the Willamette Valley produced 1.6 percent more in 1952-55 than in the period 1939-51. The remainder of Oregon's share was up 2.4 percent and the Columbia Basin share was down 4.2 percent.
In spite of the wheat acreage allotments and marketing quotas that have been in effect in this country since 1954, surpluses of wheat have continued to increase. Vigorous action has been employed to move wheat to consumers both at home and abroad, but stocks have nonetheless increased to a point where they depress farm prices and threaten orderly marketing. Stocks of wheat owned by the Commodity Credit Corporation plus loans outstanding on June 30, 1956 amounted to 1,034 million bushels. Storage costs alone, for wheat and other surplus farm products held by the C.C.C., are nearly a million dollars a day.

Mounting farm surpluses year after year strike at the welfare of all farmers. Surpluses of a commodity like wheat, force severe reductions in acreage allotments. Acres diverted from wheat are then employed in the production of other crops which compete with the products raised by other farmers. Surpluses develop in more and more products and eventually all farmers are affected, no matter what they produce.

Acreage allotments work hardships on farmers that are directly affected by them. In the case of some Oregon
farmers, wheat allotments in 1955 and 1956 had already cut their wheat acreage by as much as 40 percent of their base wheat acres. The smaller acreage has caused a substantial reduction in the farmers' incomes, particularly in the specialized wheat growing areas.

In the wheat-summerfallow areas of this state the only practical cash crop alternatives to wheat are such grains as barley, oats, and rye. But the price relationship between these grains and wheat is highly in favor of wheat. Thus when the farmers in this area divert wheat acres to another grain, their income from the acres is usually reduced materially. It was considered important therefore, that a new program for wheat should not cut wheat acreage any further than have present allotments, without compensating the farmer for the further loss of income.

The Aims and Rules of the Soil Bank Act

The Soil Bank Act was passed by Congress on May 28, 1956. It was designed to help adjust production to the realities of present day markets while it made compensatory payments to farmers to offset the loss in net income resulting from further acreage reductions. The Soil Bank is to be a major national effort to reduce the flow of surplus commodities into government and non-government
storage. As the program operates to keep excessive stocks out of storage, new and strengthened efforts to dispose of surplus commodities will help lower government holdings to manageable levels.

Another objective of the program is to increase on-the-farm conservation. The Soil Bank is expected to promote a whole new pattern of conservation work leading to better farms, better use of natural resources, and the building up of seriously eroded land.

There are two parts to the Soil Bank—an acreage reserve and a conservation reserve.

The acreage reserve is a temporary program which is designed to reduce production of wheat and five other basic crops which are currently in excess supply. The participant signs a one year contract with his ASC committee in which he agrees to reduce acreage of a basic crop below the number of acres allowed him under the allotment program. For each acre thus reduced below the allotment, he receives a payment from the government which is intended to be large enough to compensate him for loss of income on that acre of land.

The payment is determined by multiplying the base unit rate of the eligible commodity by its normal yield per acre, by the number of acres the farmer has volunteered for the program. For 1957 the base unit rate for
wheat was set at $1.20 per bushel. The rate varies somewhat among states and counties but nationally it averages $1.20 or about 60 percent of the support price on wheat.

Normal yields are determined by the county ASC committee with the help of community committees. County check yields are determined by the state ASC office on the basis of the county average yields for wheat during the base period and adjusted for drought, flood, or other abnormal conditions. The base period for wheat is the years 1945 through 1954, inclusive. The county committee in turn establishes community check yields for communities or areas of the county as deemed necessary to reflect significant variations in the yields between such communities. Then with the help of community committees, the county committee sets a normal yield for each farm. The normal yield established for the farm is subject to such adjustment as is necessary in order that the yields for all farms in the county, weighted by their allotments, will not exceed the check yield established for the county.

Land placed in the acreage reserve may not be grazed, cut for hay, or cropped during the 1957 calendar year. The farmer may leave it idle or apply a soil or water conservation practice. Farmers entering the program agree to allow county ASC committees to check compliance on their farms.
It is hoped that active participation in the acreage reserve will bring new stability to farmers' markets through a working program to bring surpluses under control. Concern that farm surpluses will continue to grow, as in the past, acted to depress farm prices.

The conservation reserve part of the soil bank is intended to encourage the shift of some of the less productive cropland into grass, trees, or water storage. It is designed as a long term measure in adjusting the use of the nation's land resources. Farmers are given substantial government assistance in establishing conservation practices and in rehabilitating worn out or eroded land.

To participate in the Conservation Reserve program, a farmer signs a contract, through his ASC committee, with the Department of Agriculture. In the contract he agrees to devote specific tracts of land to semi-permanent conservation practices. Land regularly used for crop production, including tame hay, is eligible for the program. No crop will be harvested from the conservation reserve and no grazing is to be allowed, except under emergency conditions as may be determined by the Secretary of Agriculture.

Conservation reserve contracts will be for 3 to 5 years for land already in approved cover crops, 5 to 10 years if vegetative cover is to be established, and 10
to 15 years where land is to be planted in trees.

County ASC committees will establish a "farm Soil Bank base" for each farm entering the program. In general, the Soil Bank base is the amount of acreage on a farm normally producing crops for harvest. To establish this Soil Bank base for a farm, the committee determines the average acreage of land producing crops for harvest during the years since 1954, and previous to the first year of the Conservation Reserve contract.

Thus, under a contract beginning in 1957, the Soil Bank base acreage for a farm would be the average acreage of Soil Bank base crops for 1955 and 1956; for a contract starting in 1958, the farm's base acreage would be the farm's average acreage of base crops for 1955 to 1957; for a contract starting in 1959, the base acreage would be the average acreage of base crops for 1955 to 1958; and for contracts beginning in 1960, the base acreage would be the average acreage of base crops for 1955 to 1959.

Land on the farm not included in the Soil Bank base is considered to be in conserving and idle uses. Farmers participating in the conservation reserve will agree to keep the same amount of land in idle and conserving uses as in the past, in addition to acres placed in the conservation reserve. They will also reduce acreage used in the production of crops by the amount of acres placed in the
program. In short, crop acreage is to be reduced below the Soil Bank base.

Farmers will receive up to 80 percent of what it costs them to establish permanent conservation on land placed in the program. In addition they receive a payment, each year that the contract is in force to compensate for loss of income on land taken out of crop and livestock production. The national average rental per acre is $10 and the average rate for Oregon is set at $12 per acre per year. The total rental payment to any farm producer is limited to $5,000 in any one year.

A farmer who is willing to surrender all his crop growing rights, can place all his cropland in a conservation reserve. He can receive the regular annual payment rate for each acre of his Soil Bank base. For each additional eligible acre, he gets paid a non-diversion rate which equals 30 percent of the regular payment rate. His total annual payment shall not exceed $5,000 unless the Secretary deems an increase in this limitation will further accomplish the purpose of the program.

The non-grazing and non-harvesting clauses that apply to both the acreage and conservation reserves are intended to keep the national feed supply from growing larger as a result of the Soil Bank program. More feed added to the supplies which are presently available would
work a hardship on cattle and feed producers. Their products would command a lower price on the market if more feed were added to already large supplies.

How the Soil Bank Affects Oregon Farmers

Of the six basic crops which are to be reduced by the Acreage Reserve program, only wheat is grown on a commercial basis in Oregon.

To help meet the national objective of reducing wheat acreage by about fifteen million acres in 1957, Oregon was allocated $3,141,000 as its share in the acreage reserve fund. Somewhat less than two million dollars of this amount was withheld for the purposes of a state reserve and for spring wheat participation. The remainder was made available for use by winter wheat growers.

Farmers that grow both winter and spring wheat or winter wheat only, were given until September 21, 1956 to sign an acreage reserve agreement for 1957. Later, in order to get a larger sign up the final sign up date was extended to October 5. Tenants who had to obtain signatures of one or more absentee owners, were given an additional 30 days to get these signatures. According to a tally made by the State ASC office on November 6, 1956 only $2,695,037 of the fund available to Oregon wheat growers had been subscribed for acreage reserve participation.
The size of funds to be made available to Oregon farmers for use in the conservation reserve in 1957 were not yet known at the time of this writing. Nationally, $450 million was available for payments to farmers. Farmers had until March 15, 1957, to sign a conservation reserve contract in which the first annual payment made would apply to the 1957 crop year.

**Reasons for Undertaking a Soil Bank Study**

One of the main reasons for undertaking a soil bank study was to investigate the causes for the relatively small participation by growers of winter wheat in Oregon. A payment equal to 60 percent of what a farmer could normally expect to gross for growing wheat was thought to be adequate compensation to induce a larger reduction of wheat acres.

Farmers in the wheat-summerfallow areas of the state seemed to have an additional incentive for participating in the acreage reserve. About half the cultivated land in this area is normally being summerfallowed in any given crop year. Land in fallow does not, in effect, provide any grazing nor does it produce any crop which might be harvested. Therefore, any of the land which is earmarked for summerfallow in 1957 could be designated acreage reserve and meet the conditions required for the reserve.
Under the present allotment program, the average farmer has more land slated for summerfallow than for wheat. Thus he has more fallow than he would need for acreage reserve, even if he were to put all his allotment in a reserve.

This set up enables the farmer who participates in the acreage reserve to raise an alternative crop on the land that would have gone into wheat. Then he can designate an equivalent portion of stubble land that will be summerfallowed in 1957 as his acreage reserve. Thus, the wheat-summerfallow participant receives the regular soil bank payment for land that he banks in the acreage reserve. Besides, he realizes an additional income in the net profit he makes from an alternative crop on acres diverted from wheat.

Another aspect of the investigation was an appraisal of the inefficiencies that might be attributed to acreage restrictions under the allotment program and to the lack of adequate land resources in general. An effort was made to arrive at the amount of overhead in labor and machinery that existed on the farms. The degree of employment off the farms was also examined.

The sign up in the conservation reserve program had not progressed very far when this survey was made. But most ASC offices had had many enquiries about the program.
Indications were that most farmers had looked into it sufficiently to state their opinions on the program. An attempt was made to ascertain the degree of interest in the program and the extent to which farmers expected to participate.

Another reason for making the surveys was to obtain ideas and suggestions from farmers, ASC officials, and others for getting more participation in the soil bank in the future.

The Extent of the Study

The study consisted of two separate surveys carried out during the fall of 1956 by the Oregon Agricultural Experiment Station. The help of the State Agricultural Stabilization and Conservation office was solicited and ten county ASC offices were also contacted.

The first survey consisted of a visit to each of ten county ASC offices. All the managers at these offices were contacted to obtain their views and appraisal of the soil bank as it affected their counties. A formal questionnaire was not used on these visits but a general outline was followed at each office. Comments not suggested by the outline were solicited wherever possible. Other officials in the ten counties who were interviewed included seven county agents, five ASC County Committeemen and two Soil
Conservation Service personnel.

The second survey was a study conducted among a sample of farmers in two counties of the Columbia Basin. Gilliam and Morrow counties were chosen to represent one of the drier and greater risk areas in the Basin. Virtually all the wheat grown in these counties is raised on summerfallow. The size of the farm sample selected was about ten percent of all the farm operators in the two counties.

Morrow county had subscribed a greater percentage of the acreage reserve funds allotted to it than any other county in Oregon. The amount utilized was about 37 percent of the preliminary allocation to growers of winter wheat in the county. On the other hand, Gilliam county, which has similar climatic and other growing conditions and lies adjacent, on the west side of Morrow county, had allocated only about a third of its fund for payments to acreage reserve participants. Umatilla county on the east side of Morrow county had less than 8 percent of its allotment allocated for use. But Umatilla county has within it a large portion of land that is cropped annually and is, therefore, not readily comparable to Morrow county.

The next chapter discusses the results of the interviews with ASC office managers and other officials in the ten counties visited. Chapter 5 covers the farm survey in
Gillian and Morrow counties. Chapter 6 gives a summary of the Soil Bank study and a discussion of the conclusions derived from the study.
CHAPTER IV

SURVEY OF COUNTY OFFICIALS

Time and finances did not allow for a visit to all of the counties in Oregon that had participation in the 1957 Acreage Reserve. It was decided, therefore, that only a sample of counties be chosen for examination. The first criterion for the selection of these counties was the number of acres that are devoted to wheat. Only those counties which produce substantial amounts of wheat were included. Consideration was also given to the different types of growing areas and the sample included some counties in each of the regions delineated in Chapter 2.

All the Columbia Basin wheat counties of Wasco, Sherman, Gilliam, Morrow, and Umatilla were selected because each represents a substantial portion of Oregon's wheat production. In the period 1939 to 1955 these five counties produced 71 percent of the state's total wheat production and they represent this state's specialized wheat growing area.

Polk, Yamhill and Marion counties were selected in the Willamette Valley. They are three of the larger wheat producing counties in the Valley and had a larger acreage reserve sign up than the rest of the Valley counties. The Willamette Valley is a humid part of the state in which
considerable wheat is grown in rotation with other crops.

The counties of Jefferson and Union were chosen from the remainder of Oregon's wheat producing counties. The two counties are the largest wheat producers outside the Columbia Basin and have sizeable tracts of irrigation within their boundaries. They were selected partly with the thought of observing any variations that may be present on irrigated land. Dryland farming in Jefferson county is highly subject to recurrent drought, but Union county gets more rain than most of the Columbia Basin counties.

The ASC office managers were interviewed in each of the ten counties. They were most familiar with the overall picture concerning the Acreage Reserve and Conservation Reserve programs since they had talked with all the participants and with many who decided not to participate. Other county agricultural leaders, however, were also influential in helping to direct the program and in advising farmers. County agents and ASC committeemen, especially, were called upon to help explain the program in the short interim between announcement of final rules for the program, and the final date for sign up by winter wheat producers.

Factors Related to Acreage Reserve Participation

The sign up in the 1957 Acreage Reserve program for winter wheat producers in Oregon amounted to only 14
percent of the total wheat allotment for the state. This figure compares with sign up in the Plains and Mountain states where participation went as high as 43.7 percent of the allotment in Colorado.

In the ten counties surveyed, a calculation was made to determine the percentage of allotment in each county that was placed in the acreage reserve. The percentages are given in Table 3. It can be seen that there are large

Table 3. Allotment, acreage contracted, and percent of allotment contracted in the Acreage Reserve program by winter wheat producers in ten counties of Oregon.

<table>
<thead>
<tr>
<th>County</th>
<th>1957 Allotment (Acres)</th>
<th>1957 Acreage Contracted (Acres)</th>
<th>Acreage Contracted as a Percent of County Allotment (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marion</td>
<td>17,570</td>
<td>2,226</td>
<td>12.7</td>
</tr>
<tr>
<td>Polk</td>
<td>12,646</td>
<td>1,577</td>
<td>12.5</td>
</tr>
<tr>
<td>Yamhill</td>
<td>16,690</td>
<td>1,800</td>
<td>10.8</td>
</tr>
<tr>
<td>Wasco</td>
<td>63,925</td>
<td>11,020</td>
<td>17.2</td>
</tr>
<tr>
<td>Sherman</td>
<td>91,286</td>
<td>11,218</td>
<td>12.3</td>
</tr>
<tr>
<td>Gilliam</td>
<td>88,305</td>
<td>7,310</td>
<td>8.8</td>
</tr>
<tr>
<td>Morrow</td>
<td>114,876</td>
<td>25,650</td>
<td>22.3</td>
</tr>
<tr>
<td>Umatilla</td>
<td>198,039</td>
<td>5,270</td>
<td>2.7</td>
</tr>
<tr>
<td>Union</td>
<td>42,089</td>
<td>5,570</td>
<td>13.2</td>
</tr>
<tr>
<td>Jefferson</td>
<td>28,213</td>
<td>4,941</td>
<td>17.5</td>
</tr>
</tbody>
</table>
variations among the counties in the portions of allotments that were signed up in the program. Morrow county had the largest participation with 22.3 percent of its allotment contracted, while Umatilla county had banked only 2.7 percent of its total wheat allotment. Several factors were studied in an attempt to discover some of the reasons for the variation in sign up among counties and within the counties.

**Size of Cropland, Allotments, and Yields**

It was considered relevant to examine the relation that participation in the Acreage Reserve program might have to the size of the cropland, allotments, and yields on the different farms. In this regard a study was made of the wheat-summerfallow area in the Columbia Basin. Information concerning the total population of farms in this region was available.¹/ Data which pertain to participants only, could therefore be compared with data for all farms of the area.

The area in which wheat is generally grown on summerfallow consists of Wasco, Sherman, Gilliam and Morrow counties, and several communities in the western part of Umatilla county. For the purpose of analysis,

¹/ Unpublished data compiled from ASC records by H.H. Stippler, Agricultural Research Service, U.S.D.A.
the region's farms were broken down into 4 size groups: 720 acres of cropland or less (small farms), 721-1440 acres of cropland (medium farms), 1441-2400 acres of cropland (medium large farms), and 2401 acres and over of cropland (large farms).

A compilation was made of the number of farms and of the total cropland per farm for all farms of the area which had wheat allotments. A similar tally was then made for participants only. The first section of Table 4 gives the tally for all the farms of the area by size of cropland and the second part of the table gives the same data for participants. It is seen that medium and medium large farms participated proportionately more in the program, both by numbers of farms and by the amount of cropland on these farms. The two size groups make up 41.4 percent of all the farms and 54.6 percent of all the cropland for the area. But among the participants, medium and medium large farms comprise 50.5 percent of the farms and 60.1 percent of the cropland.

A further indication that the small and large farmers did not sign up as heavily as the intervening sizes is given in Table 5. Only 21.6 percent of the small and 24.2 percent of the large farmers were participants. But on medium and medium large farms, participants comprised nearly one-third of the farmers in their size
Table 4. Number of farms and total cropland by size of cropland per farm, for Acreage Reserve participants and for all farms in the wheat-summer-fallow area, Columbia Basin, Oregon.

<table>
<thead>
<tr>
<th>Grouping by Acreage of Cropland</th>
<th>Number of Farms</th>
<th>Total Cropland</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Farms</td>
<td>Acreage (Number)</td>
</tr>
<tr>
<td>All Farms of the Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Farms (0-720 acres)</td>
<td>786</td>
<td>251,925</td>
</tr>
<tr>
<td>Medium Farms (721-1440 acres)</td>
<td>419</td>
<td>442,941</td>
</tr>
<tr>
<td>Medium Large Farms (1441-2400 acres)</td>
<td>227</td>
<td>419,887</td>
</tr>
<tr>
<td>Large Farms (2401 acres &amp; over)</td>
<td>128</td>
<td>465,935</td>
</tr>
<tr>
<td>All Farms</td>
<td>1560</td>
<td>1,580,673</td>
</tr>
</tbody>
</table>

| Participants of the Area         |                 |                |                 |                |                 |
| Small Farms (0-720 acres)        | 170             | 67,368         | 41.9            | 15.0           |
| Medium Farms (721-1440 acres)    | 132             | 135,084        | 32.5            | 30.2           |
| Medium Large Farms (1441-2400 acres) | 73         | 133,959        | 18.0            | 29.9           |
| Large Farms (2401 acres & over)  | 31              | 111,704        | 7.6             | 24.9           |
| All Farms                        | 406             | 448,115        | 100.0           | 100.0          |

One reason for the relatively small sign up among small farms was the complete absence of participation among the 77 farms on the Warm Springs Indian Reservation.
Table 5. Comparison of numbers of farms and cropland between Acreage Reserve Participants and all farms in the wheat-summerfallow area, Columbia Basin, Oregon.

<table>
<thead>
<tr>
<th>Grouping by Acreage of Cropland</th>
<th>Number of Farms</th>
<th>Cropland per Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wheat-Summerfallow Area (Number)</td>
<td>Participants of Area (Number) (Percent)</td>
</tr>
<tr>
<td>Small Farms (0-720 acres)</td>
<td>786</td>
<td>170</td>
</tr>
<tr>
<td>Medium Farms (721-1440 acres)</td>
<td>419</td>
<td>132</td>
</tr>
<tr>
<td>Medium Large Farms (1441-2400 Acres)</td>
<td>227</td>
<td>73</td>
</tr>
<tr>
<td>Large Farms (2401 acres &amp; over)</td>
<td>128</td>
<td>31</td>
</tr>
<tr>
<td>All Farms</td>
<td>1560</td>
<td>406</td>
</tr>
</tbody>
</table>
in Wasco county. Seventy-six of these farms had less than 720 acres of cropland.

Lack of sign up on the Indian reserve also contributed substantially to the fact that small farm participants had 23.4 percent more cropland than the average for all the small farms of the area. The Indian farms averaged only 114 acres of cropland. If these farms were disregarded entirely, the average amount of cropland per small farm for the area would be reduced from 396 to 343 acres. Then participants would average only 10.7 percent more cropland. In the 3 larger size groups the participants and non-participants averaged nearly the same amount of cropland per farm with participants having somewhat less cropland.

The comparison of average allotments per farm, between participants and all farms, is similar to that of cropland. Table 6 shows that in the 3 larger size groupings, the average allotment was up to 7 percent less among participants. Small farm participants, on the contrary, had 20 percent larger allotments than was average for their size group in the area.

The normal yield comparisons made in Table 6 indicate that normal yields among participants were smaller than area yields for all the size groupings. The differences ranged from 1.7 bushels per acre on medium farms to
Table 6. Comparison of allotments and normal yields between Acreage Reserve Participants and all farms in the wheat-summerfallow area, Columbia Basin, Oregon.

<table>
<thead>
<tr>
<th>Grouping by Acreage of Cropland</th>
<th>Wheat Allotments per Farm Area</th>
<th>Normal Yields Summerfallow Area Participants of Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average 1/ (Acres)</td>
<td>Average 2/ (Acres)</td>
</tr>
<tr>
<td>Small Farms (0-720 acres)</td>
<td>100</td>
<td>120</td>
</tr>
<tr>
<td>Medium Farms (721-1440 acres)</td>
<td>333</td>
<td>310</td>
</tr>
<tr>
<td>Medium Large Farms (1441-2400 acres)</td>
<td>530</td>
<td>559</td>
</tr>
<tr>
<td>Large Farms (2401 acres &amp; over)</td>
<td>1117</td>
<td>1055</td>
</tr>
<tr>
<td>All Farms</td>
<td>317</td>
<td>332</td>
</tr>
</tbody>
</table>

1/ Data giving 1957 wheat allotments by size of farm were not available for the area as a whole. 1955 allotments have been used in this comparison. On the basis of alternate crop-fallow, these are believed to compare closely with 1957 allotments.

2/ For farms participating in the acreage reserve, 1957 allotments were used.
0.4 bushels per acre among small farmers. Normal yields on the Indian reservation were exceptionally low, averaging only 3.9 bushels per acre and ranging from 4 to 15 bushels. If the reservation weren't included in the designated wheat-summerfallow area, the area normal yield for small farms would be 26.1 bushels per acre. Then participant yields on small farms would be 1.1 bushels per acre less than the area average yield.

The average percent of allotment signed up in the acreage reserve by size groupings of farms is given in Table 7. Small farm participants signed up a little over

Table 7. Allotment per farm and average acres contracted by Acreage Reserve participants in the wheat-summerfallow area, Columbia Basin, Oregon.

<table>
<thead>
<tr>
<th>Grouping by Acreage of Cropland</th>
<th>1957 Wheat Allotment per Farm (Acres)</th>
<th>Acreage Contracted 1957 Acreage Reserve (Acres)</th>
<th>Acreage Contracted as a percent of Allotment (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Farms (0-720 acres)</td>
<td>120</td>
<td>61.3</td>
<td>51.1</td>
</tr>
<tr>
<td>Medium Farms (721-1,440 acres)</td>
<td>310</td>
<td>126.9</td>
<td>40.9</td>
</tr>
<tr>
<td>Medium Large Farms (1,441-2,400 acres)</td>
<td>559</td>
<td>224.2</td>
<td>40.1</td>
</tr>
<tr>
<td>Large Farms (2,401 acres &amp; over)</td>
<td>1,055</td>
<td>460.0</td>
<td>43.6</td>
</tr>
<tr>
<td>All Farms</td>
<td>332</td>
<td>1142.4</td>
<td>42.9</td>
</tr>
</tbody>
</table>
half their allotment on the average while the other size
groups averaged a little more than 40 percent each.
Thirty-nine farms or 22.9 percent of small farm partici-
pants signed up all their wheat allotment. Six percent
of the medium farms, 6.8 percent of the medium large,
and 3.2 percent of the large farms banked their whole
allotment.

Table 8 compares numbers of farms and cropland per

Table 8. Comparison of numbers of farms and cropland
between Acreage Reserve participants and all
farms (by counties) in the wheat-summerfallow
area, Columbia Basin, Oregon.

<table>
<thead>
<tr>
<th>Counties</th>
<th>Wasco</th>
<th>Sherman</th>
<th>Gilliam</th>
<th>Morrow</th>
<th>Western</th>
<th>Umatilla</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (Number)</td>
<td>449</td>
<td>278</td>
<td>200</td>
<td>263</td>
<td>370</td>
<td></td>
</tr>
<tr>
<td>Participants (Number)</td>
<td>133</td>
<td>86</td>
<td>56</td>
<td>108</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>% Participants</td>
<td>29.6</td>
<td>30.9</td>
<td>28.0</td>
<td>41.1</td>
<td>7.3</td>
<td></td>
</tr>
</tbody>
</table>

| Area (Acres)      | 471   | 1079    | 1433    | 1365   | 1145    |          |
| Participants (Acres) | 684 | 1021    | 1274    | 1612   | 1032    |          |
| % Participants    | 145.2 | 94.6    | 88.9    | 118.1  | 90.1    |          |

farm by counties between participants and all farms in the
wheat-summerfallow area. In western Umatilla county partici-
pants made up as little as 7.3 percent of all the farms.
while in Morrow county 41 percent of the farmers participated. Wasco county would have had 35.3 percent participants if only the area outside the Warm Springs Indian reservation were included. Excluding the reservation would also increase the average number of cropland acres per farm from 471 to 543. But this would still leave participants in Wasco county with 26 percent more cropland than the average for all farms. Participants in Morrow county averaged 18 percent more cropland. Sherman, Gilliam and western Umatilla counties, on the other hand, had considerably more cropland on the average farm than among their participants.

An estimate was made of the amount of wheat that will not be produced in the Columbia Basin wheat-summer-fallow area as a result of the 1957 Acreage Reserve program. If expected yields are considered equal to normal yields, the amount of reduction in wheat that might be expected would be about 1,418,400 bushels or approximately 11.2 percent of what would have been produced on the total area allotment. Since acres diverted from wheat will nearly always be seeded to barley or rye, these grains will be increased by about the same number of bushels that wheat is reduced.

Outside the wheat-summerfallow area of the Columbia Basin there were no available data on the total population
of wheat farms for any given area or county. Therefore, in the rest of the study area no ready comparisons could be made between participants and the total population of farms. But a number of observations about the areas were obtained from interviews with officials and from examining the records pertaining to participation.

It was estimated that Union county had more participation among the smaller allotment sizes. The average amount of cropland on participating farms was 313 acres. They averaged 82 acres of allotment for 1957, and the average amount contracted in the acreage reserve was 37 acres. Forty-five percent of the participants signed up their whole allotment. Participation was larger among an estimated 75 percent of the farmers in the county who were not primarily wheat farmers.

In Jefferson county sign up tended more to the larger allotments. The main reason was that the bigger allotments were on dryland, where the bulk of the sign up occurred. Irrigation farmers were very dissatisfied with their normal yields, and participation on their farms was limited strictly to the few instances where farmers wanted to get a seed crop started on their acreage reserve. The average of 34 participants had 605 acres of cropland, 191 acres of allotment, and 145 acres in the acreage reserve. One very large farmer signed up all his 2466 allotment
acres. His payment of nearly $70,000 was over half the total amount paid out to acreage reserve participants in the county.

In the Willamette Valley, sign up seemed to be heavier among medium size allotments. In the three counties surveyed, 295 participants placed an average of 19 acres in the acreage reserve. The farms averaged 183 acres of cropland and 29.6 acres of allotment. Fifty-four percent of the participants signed up all their allotment. One office manager estimated that sign up was proportionately less among allotments of about 10 acres and under, because many farmers wanted to take advantage of the law, that allows them to grow up to 15 acres of wheat without being subject to marketing quotas. The larger allotments were usually in the more productive wheat growing areas where participation on the whole was quite light.

**Expected Versus Normal Yields**

In the Willamette Valley counties the farmers, practically without exception, felt their normal yields were set lower than their land's ability to produce wheat. An office manager estimated that the normal yields for his county were only about 60 percent of what yields appeared to have averaged in the past 3 years. Fertilizer use had
been stepped up heavily since about 1953, and the response to fertilizer was very favorable. A county agent estimates that Willamette Valley wheat yields could be increased 10 bushels per acre if all farmers were to use an optimum amount of fertilizer. At present only about ten percent of farmers use the estimated optimum amount. Higher yielding wheat varieties and other improved practices, help to raise expectations of higher wheat yields.

In Union and Jefferson counties too, farmers were generally dissatisfied with their normal yields. Here again the use of fertilizer had been stepped up in recent years with good results. It was reported that in Jefferson county fertilized fields had done relatively better even in 1955, a very dry year. Irrigation farmers in Jefferson county were particularly dissatisfied with the normal yields that were set up for their farms. Most of these farms didn't receive irrigation water till about the years 1950 to 1953. The normal yields, however, were based on the 10 year average 1945-54. Since many of the acres that are now irrigated were among the driest in the county, the normal yields based on the ten year average are too low. Apparently the typical estimate among these farmers was that they could produce yields twice as high as the normal yields for their farms.

In the Columbia Basin, normal yields were considered
more nearly in line with the future potential to produce wheat. Fertilizer use in these counties has also been increasing fairly rapidly and has shown good results in years of higher rainfall. But in drier years and on shallow soils, there is still a question in many farmers' minds whether it pays to fertilize. County agents report, however, that more and more farmers have been fertilizing, especially since 1953, and the number is likely to continue to grow.\(^1\) The high wheat yields in the Columbia Basin in 1956 and the good to excellent moisture conditions during the fall of the year, brought a notable increase in fertilizer use on wheat acres to be harvested in 1957.

Taken as a group, the only Columbia Basin farmers who complained about their normal yields were in the northern part of Sherman county. The ASC office admitted that the normal yields of these farms were probably set too low relative to the rest of the county. The area is generally quite productive and fertilizer in recent years has given very good results in the region. Acreage reserve participation in this area of Sherman county was comparatively light. The small sign up was attributed largely to the low normal yields. But it was also felt that barley yields in the area were poorer, relative to wheat,

\(^{1}\) For further information on fertilizer use see: Stippler, H.H. Fertilizer use in the wheat-summerfallow area of the Columbia Basin. (Oregon. Agricultural Experiment Station. Circular of Information no. 576).
than in some of the shallower soils in other parts of the county.

Generally in the wheat-summerfallow area, however, the land which produced the highest yield of wheat was also better adapted to barley. Morrow county, particularly, found a close relationship between participation and the better wheat lands. The higher acreage reserve payments offered on this land, along with more certain returns from barley resulted in a greater sign up.

Union county and the Willamette Valley counties had their highest participation in areas that were not so productive. In the Valley the designated acreage reserve frequently consisted of land that was low in fertility due to weeds or from too frequent cropping. It was anticipated that reserve acres would be planted to a legume cover crop or summerfallowed to check weeds. In Union county the community with the largest sign up had a considerable number of livestock. Many of the participants were expected to start a growth of alfalfa on their acreage reserve.

It was thought that irrigation farmers in Union county were proportionally represented in the sign up. Consequently their normal yields were believed to have been set at fair or possibly high levels. On the contrary, Jefferson county irrigation areas had normal yields
that were much too low and sign up was limited to instances where it could somehow be fitted into the established farm plan. On the dryland of Jefferson county, most of the participation was on the higher yielding land.

In general it appeared that counties which had much dissatisfaction with normal yields tended to have a greater proportion of sign up on lower yield farms. This is shown in Table 9 which compares the normal yields of participants with county normal yields. Seven of the ten counties had

Table 9. County normal yields and normal yields for participants, in the Acreage Reserve program for winter wheat producers in ten counties of Oregon.

<table>
<thead>
<tr>
<th>County</th>
<th>Normal Yield of Participant (Bushels)</th>
<th>Normal Yield of Participants (Bushels)</th>
<th>Participant Yield as a Percent of County Yield (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marion</td>
<td>27.3</td>
<td>26.4</td>
<td>96.7</td>
</tr>
<tr>
<td>Polk</td>
<td>25.3</td>
<td>23.3</td>
<td>90.3</td>
</tr>
<tr>
<td>Yamhill</td>
<td>26.0</td>
<td>26.7</td>
<td>99.2</td>
</tr>
<tr>
<td>Wasco</td>
<td>24.6</td>
<td>25.5</td>
<td>103.6</td>
</tr>
<tr>
<td>Sherman</td>
<td>28.3</td>
<td>26.6</td>
<td>94.0</td>
</tr>
<tr>
<td>Gilliam</td>
<td>24.2</td>
<td>24.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Morrow</td>
<td>22.2</td>
<td>22.4</td>
<td>100.9</td>
</tr>
<tr>
<td>Umatilla</td>
<td>28.9</td>
<td>26.3</td>
<td>92.7</td>
</tr>
<tr>
<td>Union</td>
<td>31.2</td>
<td>29.7</td>
<td>95.2</td>
</tr>
<tr>
<td>Jefferson</td>
<td>23.4</td>
<td>22.3</td>
<td>97.4</td>
</tr>
</tbody>
</table>
higher county normal yields than the average for participants in the county. Gilliam county had the same normal yield for participants and non-participants, while Wasco and Morrow counties had somewhat higher yields among their acreage reserve participants. If the Indian reservation were excluded in Wasco county, the county normal yield would be 25.5 bushels—exactly the same as the normal yield for participants.

Tenure

There was little difficulty in the landlord and tenant getting together on a basis for sharing the benefit payments from the acreage reserve. Almost invariably the sharing was in the same proportion as the lease agreements provided. Only in Umatilla county was there some evidence of differences of opinion that might have retarded some sign up on rented land.

In Morrow county there were some instances where the landlord didn't understand or wanted to have nothing to do with the soil bank. Wasco county reported more interest among owner operators and part-owners. Part-owners tended to put their acreage reserve onto land that they owned and plant the full allotment on land they were renting. On the other hand, in Sherman and Union counties the trend was for rented land to go into the acreage reserve. Sherman county reported some cases where the landlord wanted to
participate, and his tenant had to go along with the program.

In the Willamette Valley there appeared to be a tendency for some landlords to put all their eligible land into the soil bank. These landlords and some owners who had been hiring their farm operations done by custom work, were placing as many acres as were permitted into the acreage reserve. They were then planning to put the remainder of their eligible land into the conservation reserve. Some were preparing to dismiss their tenants and thus receive all the benefits that would be paid under the two parts of the Soil Bank program.

Such action appears to spurn the regulation in the Soil Bank Act which says that a landlord may not enter into an agreement if it appears he has displaced a tenant in preparation for the program. But many rental agreements in the Willamette Valley have been verbal rather than written and these leases have generally been renewed every year. The renter is, therefore, subject to dismissal at the end of any contract year. It is difficult to prove that the landlord refused to renew an agreement with his tenant in order to prevent the tenant from sharing in the soil bank payment. Some landlords, for instance have been removing their renters to gain self-employed status on their farms, and thus improve their positions for social security purposes.
It was suggested that this development in the Willamette Valley would probably bring about a demand by tenants for a 3 to 5 year written lease agreement in the future.

Delay in Announcing the 1957 Program

There was general agreement that the regulations for the 1957 Acreage Reserve program for wheat and the sign up dates came too late in some parts of Oregon to get as much participation as would otherwise have been the case. This is borne out by the fact that in Union county most of the wheat had been seeded by the first sign up date. In Wasco county most of the farmers were seeding about sign up time and many had already seeded half their allotment when they signed an agreement to put the other half into acreage reserve. Some farmers didn't apply for more than 50 percent of their allotment. They felt they couldn't delay their seeding until such a time as it would be determined whether they could sign up additional acres. Several farmers in northern Morrow county had seeded some of their wheat as early as August 26, following a half inch of rainfall.

In the wheat-summerfallow areas, farmers had a substantial investment in the summerfallow which had been earmarked for seeding to wheat. They had spent several
dollars per acre for tillage operations and some had spent considerable money to fertilize these fields. Since most alternative crops to wheat are held in such low regard, farmers felt they would partly waste their investment if they substituted another crop for wheat. Besides, many farmers had treated their seed wheat and since it couldn't be marketed in its treated condition, they felt they should go ahead and seed it.

In the Willamette Valley it was generally agreed that program rules and sign up dates came sufficiently early to allow for nearly full participation in the acreage reserve. A dry fall had delayed seeding in most cases till October or November. So Willamette Valley farmers had the opportunity of putting any portion of their allotment in the acreage reserve. It is anticipated, though, that participation in the Valley will be higher in future years as more and more farmers discover means of using the program to their advantage. A number of patterns are already suggested for use on acreage reserve land.

A number of farmers are interested in using a moving rotation on their reserve acres. They would cover all their cultivated ground with a green manure crop before the acreage reserve program is slated to expire in 1959. The acreage reserve can be put into clover or alfalfa and left for a year without harvesting or grazing. It can
then be plowed and seeded to wheat or another cash crop. Wheat following a legume has given excellent results in most cases. The legume might be left on the same land for two years in preparation for a highly intensified crop like strawberries. This would also provide the extra benefit of a higher acreage reserve payment if the same reserve acres are used in two successive years. Payments in the second year are 110 percent of the first year's payment, if the same land is retained for acreage reserve.

The acreage reserve program also affords the farmers an opportunity to clean up their fields of weeds. In some cases this practice has been neglected for years because farmers felt they couldn't afford to forego a crop while they summerfallowed. Now they can get a soil bank payment on the ground on which they are getting rid of weeds. If they put lime and a cover crop on the same land during the winter, they can qualify for an ACP payment in addition to the acreage reserve payment. The cover crop can be plowed in the spring and the ground can then be worked during the summer to control such weeds as Canada thistle and morning glory.

Another practice that can be used is to plow the ground in early spring and work it till June or even up to early fall. Then this land could be seeded to a perennial seed crop without including a nurse crop. The
seed crop can get a better start when there isn't a nurse crop to compete with it. It is anticipated that demand for perennial seeds will grow stronger, when the Conservation Reserve program begins to draw more heavily on the available supply.

In the wheat-summerfallow areas it is expected that the designated acreage reserve will nearly always be summerfallowed in 1957. In regions of higher rainfall, as in parts of Umatilla and Union counties, there will be some grass or alfalfa crops started and some green manure crops plowed under, in addition to the use of summerfallow on acreage reserves.

Publicity for the Program

Following the announcement of the regulations for the 1957 Acreage Reserve program, the agricultural leaders in all counties were active in making this information known to farmers who had a wheat allotment. County papers and radio broadcasts were used to disseminate the highlights of the program. At least one general meeting of farmers was called, and in some counties several meetings were held in different parts of the county. Most ASC offices sent individual letters to farmers giving the farmer his normal yield, dollars per acre which he could realize in acreage reserve payments, and other information.
Union county sent letters to both the tenant and the owner of a farm. In Marion county, the ASC office went so far as to set up a special soil bank department and gave special training to three fieldmen who visited with the farmers to explain the program.

Nearly everyone who was interviewed thought that farmers who made an effort to learn about acreage reserve regulations had had sufficient opportunity to do so. But one county agent in the wheat-summerfallow area suggested that more might have been done in his county to inform landlords about the program. An office manager in the Willamette Valley thought that some farmers still weren't aware of some practices that were permitted for use on an acreage reserve.

**General Observations**

One county agent suggested that the new export policy for wheat that was announced by the Secretary of Agriculture to go into effect on September 5, 1956, came out about one month too early. Because of the nature of the policy, farm magazines were predicting that the price of wheat would rise as much as 40 cents per bushel in the Pacific Northwest. On the other hand, farmers didn't know what the price support on barley would be in 1957 and they felt it would be considerably lower than in 1956. The advantages of growing wheat, therefore, seemed to outweigh
the combined prospects of barley and the acreage reserve payments.

Some farmers in the specialized wheat areas had reservations about growing additional barley or other feed grains. They felt it would infringe on the feed growers and add greatly to the relative surplus of feed crops. One ASC county committeeman put it this way: Present Soil Bank regulations require that no grazing be allowed on the acreage reserve nor the conservation reserve. Yet in summerfallow areas barley may be grown on land diverted from wheat. Where fall barley is grown it can be grazed in the fall months and threshed for grain in the next summer. The amount of barley feed thus added to the general feed supply, is substantially greater than the amount of feed that grazing on soil bank acres could provide in wheat-summerfallow regions.

The non-grazing clause can make it difficult for farmers with livestock in the wheat-summerfallow areas to participate in the acreage reserve. They usually can't afford to fence off the reserve acres since fencing isn't practical on the large scale farms found in the wheat specialty areas. The designated acreage reserve is nearly always in stubble from January 1 until it is plowed for summerfallow in the spring. Ordinarily this stubble field provides little grazing after the first of the year, but
present regulations do not allow livestock on the field if it is an acreage reserve. The ASC office manager for Gilliam county estimated his county would have signed up at least twice as many acres if livestock could have been run on the acreage reserve.

... Many farmers in the Willamette Valley who have very small wheat allotments or no allotments at all are very dissatisfied. If they happened to be growing little or no wheat for market in the base years 1952 and 1953, their allotment is likewise small or they have no allotment. They now see that their neighbors with allotments are able to use them to considerable advantage, and they would like to be able to share in this comparative windfall. Some of their fields might also be in need of a green manure crop or a clean up from weeds, but they can't qualify for an acreage reserve payment while they are taking care of such measures.

In Jefferson county there is similar dissatisfaction with allotments on the part of some farmers. The north group of farmers in the county received water for irrigation in 1952 and 1953. Wheat, therefore was still their principal crop in these years. But the south group had received their water earlier and they were growing a lot of ladino clover during the base years. Now the south
group is unhappy because their allotment is so much smaller than that of the north group.

... 

A number of ASC officials and county agents complained about the changes in the rules and dates that have occurred since the Soil Bank Act was passed in May, 1956. They think farmers would feel better about the program if the rules and deadline dates were left unchanged for at least the duration of one contract year.

The extension of the deadline date for signing acreage reserve agreements in the fall of 1956 was a case in point. Of Morrow county signers, thirty-seven had indicated a desire to put more than 50 percent of their allotment in the acreage reserve. They had done so with the understanding that after September 21 they could sign a new contract for additional acres if the amount of acreage reserve funds had not been exhausted by that date.

When the deadline date was extended from September 21 to October 5, a number of these farmers felt they couldn't hold up their seeding any longer. Later an amendment was announced which allowed farmers to sign up as much as 100 percent of their allotment. But many participating farmers had already seeded at least some wheat. Of the original 37 farmers indicating a desire to place over 50 percent in the acreage reserve, only 21 came back to sign an amended contract.
The Conservation Reserve Program

The Columbia Basin counties on the whole expect comparatively little participation in the conservation reserve program. As was the case with the acreage reserve, it is not practical to fence off the land that might go into the conservation reserve. Much of the inferior cropland is in relatively small plots which are scattered within much larger fields. Even where larger fields might be considered for conservation reserve, these usually lie on the edges of scab pasture land or steep ravines. In order to insure against grazing, the reserve acres would need to be adequately fenced from other cropland and also from adjoining non-cropland.

The $5,000 limitation on the amount of annual payments that can be made to a single operator, apparently deterred a few of the larger farmers from taking their whole farms out of production. In one county several larger operators had expressed an interest in signing up as many acres as were permitted into the acreage reserve. The remainder of the eligible land would have been placed in the conservation reserve. If a substantially higher limit than $5,000 could have been paid under the Conservation Reserve program, these farmers might have put their complete farms into the soil bank.

The limitations of the Soil Bank base are a strong
deterrent to participation on those farms which have a considerable amount of summerfallow. Since summerfallow acres are not counted when calculating the Soil Bank base, a common expression used in this area is that wheat-summerfallow farmers have to put two acres into the conservation reserve in order to get paid for one acre. One ASC office manager stated that he has learned to begin his discussions of the Conservation Reserve program by explaining the way the Soil Bank base works. He finds that he generally doesn't need to explain further when the farmer shows lack of further interest.

Some farmers in Union and Wasco counties have indicated that they plan to do a lot of double cropping in the period 1957 to 1959 in order to build up a higher Soil Bank base. Then in 1960 before the program is slated to expire, they can put an acreage in the conservation reserve. Such an arrangement could still leave them with as many acres for cash crops during the contract period as they were cropping when summerfallow was part of their program.

In the Willamette Valley, county agricultural leaders were looking for a moderate to heavy participation in the conservation reserve program. Again, as with the acreage reserve, there is considerable interest on the part of the landlords and the owners who hire their farming
operations. The landlord's share of the returns from the farm (usually one third of the gross production) is frequently less than the $1.3 per acre that he could realize from the land if it were in the conservation reserve.

Most farms have small acreages of marginal type land or odd shaped pieces of land that will normally net less than $1.3 per acre. Much of this type of land, it is hoped, will go into the conservation reserve and will be seeded to a legume or grass or to a combined legume and grass. There seems to be quite an interest in tree planting too. This type of planting is expected more on the slopes near the edge of the forest. Trees may also be planted by some of the larger farmers who have a piece of land away from the rest or one that is hard to get to.

There are several factors that will work against the signing of conservation reserve contracts: (1) Taxes of $5 to $9 per acre will take a substantial part of the payment received. (2) There is a difficulty in being able to buy enough trees for establishing forestry reserves. (3) Some farms, like the grass farmers on the hilly lands, hesitate to participate because their Soil Bank base is too small. (4) Many farmers hesitate to sign an agreement because of the length of time their land would be tied up.

Part Time Farmers

In the Willamette Valley, loggers are the most
typical part time farmers. There were indications that a number of these loggers would put their whole farm into the conservation reserve. Generally speaking they have been doing a poor job of farming and usually occupy the worst land on the edge of the forest. They try to farm but prefer to log. The farm has afforded them a place to live and they have been interested mainly in getting enough off the farm to pay the taxes and most of the expenses.

In the Columbia Basin there is little part time farming. The few who do operate in the area gave little indication that they would sign up all or any part of their land. Only in Wasco county had there been any enquiries by farmers planning to put all their land in the conservation reserve. One elderly couple was planning to put in all their land since they could no longer operate it adequately. Also the parties to a 3-way estate were thinking of putting their whole farm into the soil bank since this would obviate the need for supervising a renter on the farm. None of the 3 parties who had an interest in the farm lived in that vicinity.
CHAPTER V

THE FARM SURVEY

The area included under the farm study had to be confined still further from that which was covered in the survey of county officials. Rather than make a widely dispersed survey of farmer opinions, it was thought more desirable that an adequate sample of farms be selected from a smaller area. The region chosen should be fairly uniform throughout its area with regard to wheat production. Gilliam and Morrow counties together make up an area that was considered of feasible size for the study and the two counties are quite similar in climate and topography.

There were other reasons for choosing these two counties as the area for study. Since the farm survey could cover only a small portion of the wheat growing regions in Oregon, an area was selected that devotes most of its farm resources to the production of wheat. In 1954, approximately 66 percent of all farm products sold in Gilliam county was from wheat; Morrow county’s farm income was about 54 percent from wheat. Farms are large in these counties and a wide area could be covered by interviewing a relatively small number of farmers.

Nearly half the land normally devoted to cash crops
in the study area, is in summerfallow at any given time. It is possible, then, for the farmers in this area to participate in the Acreage Reserve program and yet crop their normal acreage. The designated acreage reserve is placed on a portion of the idle summerfallow acres and a substitute crop can be grown on the land diverted from wheat. Therefore, a participant in this area can receive a payment for the acres he banks, and still grow a crop, other than wheat, or an equivalent acreage. The farm study in Gilliam and Morrow counties would indicate some of the reasons that more farmers didn't take advantage of this apparent opportunity for a double income.

The study of the two counties afforded an opportunity to look into the causes for the high sign up in the one county and the relatively low participation in the other. Morrow county used about 37 percent of its preliminary allocation of funds to winter wheat growers while Gilliam county subscribed less than 35 percent of the funds that were allocated to it. The two counties lie adjacent to each other and have similar growing conditions for producing wheat.

**Selection of the Sample**

There were 263 farm operators with wheat allotments in Morrow county and 200 in Gilliam county. The farms
in each county were divided into three groups and were stratified on the basis of their average 1955 and 1956 "wheat base" acres. Farms with 0 to 399 acres of wheat base were classified as "small". The "medium" category included all farms that had 400 to 799 acres as their average 1955-56 wheat base; the group which was classified "large" had a wheat base of 800 acres and over.

The farms in the three size groups were then further subdivided as to participants and non-participants in the Acreage Reserve program. About 28 percent of the farmers with allotments had signed an acreage reserve agreement in Gilliam county. Morrow county's participants included over 41 percent of its wheat allotment farmers.

The population of farms in each county had therefore been broken down into six groups--small, medium, and large groups among participants and the same 3 strata for those who did not participate in the acreage reserve. In each county a sample of 3 farms was drawn at random from each of the participant groups. From the three groups of non-participants, a random selection of 5 farms was made in each group. Thus the total size of the farm sample in each county was twenty-four--9 participants and 15 non-participants.
A Description of the Study Area

The wheat lands of Morrow county are concentrated in the central western part of the county. Little wheat is grown in the northern, eastern, and southern parts where nearly all the land is devoted to range. Most of the farms within the main wheat growing area do not have significant amounts of grazing land in conjunction with their wheat project. On the edges of the wheat area, however, there are a number of farmers who are primarily livestock ranchers and their farms may have several times as many acres of grazing land as cultivated acres.

The wheat farms of Gilliam county differ from those in Morrow in that they have a larger acreage of grass on the average. The wheat lands are scattered over the entire county and most farms will have a certain amount of grazing land along with their wheat land. As a result, more farms in Gilliam than in Morrow county keep a significant number of livestock. The average size of the overall unit is larger in Gilliam county than in any other important wheat growing county of Oregon.

The north end of both counties have lighter and drouthier soils, and in this area the yields are somewhat lower than in other sections. In the past 15 years, however, with generally favorable growing conditions, this land has shown itself rather profitable for growing wheat.
Most new wheat land that was added during years of high wheat prices was in this section of the two counties. In the long run these lighter soils are more nearly marginal for growing wheat than the older established wheat lands.

Opportunities for growing alternative crops are very limited on wheat lands of Gilliam and Morrow counties. Barley and rye are probably the best substitute crops for acres diverted from wheat, but these crops usually are considerably less profitable than wheat.

The Farm Study

A comparison was made of the size of the total farm unit and of the amount of cropland per farm in the two counties. Averages were calculated for each county sample of 24 farms. The average size of the farm units in Gilliam county was 4331 acres while the Morrow county average was 2990 acres. But the amount of cropland was larger on Morrow county farms with this county averaging 1681 acres, while Gilliam county averaged only 1428 acres. Based on the sample of farms visited, therefore, Morrow county farms had more cropland than non-cultivated acres. Farms in Gilliam county, on the other hand, had about twice as much land that wasn't cultivated as they had acres for cropping purposes.
It is apparent also, that the non-cropland was distributed among more farms in Gilliam than in Morrow county. The ratio of cropland to total farm size in Morrow county could be increased from 0.56 to 0.73, if 5 farms near the perimeter of the wheat growing area were taken out of the sample. In Gilliam county, however, 22 farms with large grazing tracts would have to be removed from the sample to be left with a 0.78 ratio of cropland to total farm size.

Nearly all the farmers interviewed in the two counties indicated that they could handle substantially more land than they were operating with the amount of machinery they owned. Each farmer was asked to estimate the number of cropland acres that he could adequately handle with the machinery he had. He was then asked to estimate the number of acres he could properly farm with his own (operator's) labor alone, if he had adequate machinery and could hire help during harvest. The average of the estimates in the 3 size groups for Morrow county and Gilliam county is given in Table 10. The table also gives averages of the estimated present value of machinery owned by the farm operators and the average amount of cropland per farm in each group.

The table shows that in Morrow county the farm operators feel they should have 78 percent more cropland
Table 10. Cropland acres, value of machinery, and estimates of acres needed to adequately employ operator's machinery and labor--3 groups of farms in Morrow and Gilliam counties.

<table>
<thead>
<tr>
<th>Size Group</th>
<th>Cropland Per Farm (Acres)</th>
<th>Value of Machinery Per Farm (Dollars)</th>
<th>Necessary acres to adequately employ Operator's Machinery (Acres)</th>
<th>Operator's Own Labor (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morrow County</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 small farms</td>
<td>470</td>
<td>15025</td>
<td>1556</td>
<td>1306</td>
</tr>
<tr>
<td>8 medium farms</td>
<td>1276</td>
<td>24250</td>
<td>2762</td>
<td>2400</td>
</tr>
<tr>
<td>8 large farms</td>
<td>3318</td>
<td>44375</td>
<td>4450</td>
<td>3225</td>
</tr>
<tr>
<td>Av. 24 farms</td>
<td>1661</td>
<td>28083</td>
<td>2987</td>
<td>2352</td>
</tr>
<tr>
<td>Gilliam County</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 small farms</td>
<td>435</td>
<td>9250</td>
<td>1171</td>
<td>1171</td>
</tr>
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<td>1825</td>
</tr>
<tr>
<td>Av. 24 farms</td>
<td>1428</td>
<td>23271</td>
<td>2174</td>
<td>1535</td>
</tr>
</tbody>
</table>

than they now own, to employ their machinery adequately. To employ their own labor sufficiently they would need 40 percent more acres. Gilliam county farmers would require about 52 percent more cropland to properly employ their machinery and 9 percent more if they just used their own labor with sufficient machinery.

Farms in the small size group in both counties showed the greatest degree of overhead in machinery and
operator's labor. These small farmers estimated they could properly handle approximately three times as many cropland acres with their own machinery and their own labor as was available to them on their farms.

A small operator in each county had no machinery of his own. One used his brother-in-law's machinery in exchange for about 50 days of labor on his brother-in-law's farm. The other worked about 100 days a year on his father's farm in exchange for using his dad's machinery to do his own farm operations. Since these two farmers owned no machinery, the average of "acres needed to adequately employ the operator's machinery" in Table 10, was based on only 7 small farm estimates in each county. Their zero equity in machinery, however, was averaged into the "machinery value" column.

Medium and large farms in Gilliam county showed less underemployment of operator's labor and machinery than did these sizes of farms in Morrow county. Undoubtedly, the prevalence of more livestock on a greater number of farms in Gilliam county accounts for most of this difference. In order to care for livestock and provide for their feed, the farm operator uses time and machinery that would otherwise be available to the growing of cash crops. It can also be seen from Table 10 that the large farms in Gilliam county had considerably less cropland and machinery than
did the large farms in Morrow county.

Gilliam county farm operators hired nearly 48 percent more labor than Morrow county farmers. Again this fact can be explained largely by the need for more labor to care for the greater number of livestock. The breakdown for man days of labor hired in the two counties is given by size groups in Table II. The relatively large amount of labor hired on the small farms in Morrow county is explained by the fact that one farm hired 700 man days of labor per year. The total size of the farm was 9400 acres but it had only 720 acres of cropland. This farm could, therefore, be classified as "small" only with regard to the size of its cropland or wheat allotment.

The group of small farms in Gilliam county contained 3 farms with total acreages that were about ten times the size of their cropland. But two of these farms were run

<table>
<thead>
<tr>
<th>Size Group</th>
<th>Man days of labor hired annually</th>
<th>Gilliam County</th>
<th>Morrow County</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 small farms</td>
<td></td>
<td>76</td>
<td>139</td>
</tr>
<tr>
<td>8 medium farms</td>
<td></td>
<td>228</td>
<td>108</td>
</tr>
<tr>
<td>8 large farms</td>
<td></td>
<td>524</td>
<td>343</td>
</tr>
<tr>
<td>24 farm average</td>
<td></td>
<td>276</td>
<td>187</td>
</tr>
</tbody>
</table>
by father-son partnerships and they hired only 110 man days of labor between them.

The hiring of farm operations was negligible in Morrow county. Weed spraying was the only operation hired and 4 of the 5 farmers who hired spraying said they did so only when they were rushed for time. In Gilliam county 3 farmers reported that they had hired some of their spraying in the past. Two had hired some combining and one had been hiring all his combining done by a neighbor. One farmer had been hiring a neighbor to do all his field operations in the past two years, but in the fall of 1956 he had bought back into a full line of machinery.

Work done off the farm was minor and was confined to operators in the small size group in both counties. The two farmers who owned no machinery worked an average of 75 days per year for a relative, in exchange for using the latter's machinery. Two other operators worked away from their farms about one month out of the year. One of these two helped run a garage business in which he had partial interest; the other cut fence posts and contracted fence building. One very small farmer, who was a carpenter by trade, worked about 90 days of the year off the farm doing carpentry work.
The Acreage Reserve Program

Reasons for Participation in the Acreage Reserve Program

In Morrow county, participants in the Acreage Reserve program were confident that they would realize greater returns than if they had grown all their allotment to wheat. Eight of the nine who signed up, gave as their primary reason the fact that the acreage reserve payments plus the returns from an alternative crop would be higher than anticipated returns from an equal acreage in wheat. The ninth participant received his main income from cattle. This rancher had seeded all his allotment to wheat and planned to cut 50 percent of it for hay. Normally he had been buying some hay for his cattle. His designated acreage reserve was on a farm some distance from his home ranch where he didn't need to fence against his own cattle.

Four participants mentioned the crop insurance aspect of the program as one feature that influenced them to sign up. Morrow county had had its first experience with barley crop insurance under the Federal Crop Insurance program in 1956. The program was considered successful and was to be continued in 1957. Under the program the insured is guaranteed $16 per acre if his barley crop is a complete failure. An acreage reserve participant,
who carries barley crop insurance, is therefore guaranteed the acreage reserve payment plus $16 per acre on his barley crop, regardless of how poorly the crops turn out in 1957.

One small and one large participant had put 100 percent of their allotment in the acreage reserve. Five other participants had signed up 50 percent of their allotment. Four of these had not indicated on their first contract that they wished to sign up more than half their allotment. One of them put it this way, "I was too conservative to sign up more than 50 percent even though it seemed like a good deal." The fifth had indicated a desire to put 100 percent of his allotment in the acreage reserve, but he had seeded half his allotment to wheat by the time he was given an opportunity to sign up the rest of the allotment.

One participant had signed up 36 percent, which was all the allotment on one of his three farms. But he would have put the rest of his allotment in the acreage reserve if he had been given that option when sign ups for the program began. Another large operator ended up with 58 percent of his allotment in the acreage reserve. This was all of the allotment on his own land. He couldn't sign up any of his rented land because the landlady couldn't see through the soil bank and would therefore not go along with it. Furthermore, by the arrangement he used he
could concentrate all his wheat on one of the two farms he operated.

A medium and a large operator believed that the acreage reserve payment per acre was more than they could net from an acre of wheat. But besides, they both expected a profit from the alternative crop they planted on the acres diverted from wheat. One suggested that he could raise at least as many pounds of barley per acre as he could of wheat. The other felt that on the light soil he farmed, a barley crop on the average no more than paid his expenses of growing and harvesting it. However, he had put all his 940 acres of allotment into a new variety of rye. This new rye had yielded 34 bushels per acre on a neighbor's field in 1956. The field contained poor soil, and 20 years ago it would have been regarded as marginal for crop production. Reportedly this new rye variety is less persistent in reseeding itself than older varieties were. In other words, it will not remain in the fields for as many years to act as a weed for succeeding non-rye crops.

The nine participants interviewed in Gilliam county were, on the whole, considerably less enthusiastic about the Acreage Reserve program. Only one rancher signed up all his allotment. The allotment was only 57 acres while his total unit was a sheep ranch that contained nearly
8,000 acres of land. He didn't like to grow wheat and
doesn't have a full line of machinery for cash grain farm-
ing. Besides, he had cropped all his cultivated land in
1956 because of good moisture conditions, and therefore
didn't have any summerfallow on which to grow wheat in
1957.

A small and a medium size farmer each signed up half
their allotment. The small operator could get nearly $40
per acre as an acreage reserve payment and he hoped to
gross about $40 per acre on his barley. He considered the
combined return substantially above the return he could
expect to net from a wheat crop. He would have signed up
his whole allotment if he had been given that option early
in September rather than at the end of the month. The
medium size operator suggested that the $37.50 per acre
payment would provide him with good insurance, and if con-
ditions for growing wheat were good in 1957, the barley
crop would be helped equally.

The other six participants signed up an average of
27 percent of their allotments and the percentages ranged
from 21 to 40. Two of these farmers signed up an acreage
because some of their fields which had been intended for
wheat, joined a field that was to go into barley. They put
these adjoining acres into barley as a limited experiment
at participation—since it wouldn't make or break them
either way. A tenant put a 217 acre field in the acreage
reserve because it lay off by itself and was fenced. Otherwise the landlord wouldn't go along with the soil bank. He doesn't like allotments of any kind. A small farmer on light soil regarded barley as a crop that doesn't produce a net profit on his farm but he put a few acres into the new type of rye in order to help cut down on the wheat surplus. Another operator planted barley on 400 acres of his 1400 acre allotment. This field was infested with rye and he hoped to get rid of some of the rye by harvesting a barley crop from it next summer. The last participant thought that the $31 acreage reserve payment was more than the difference in profit between wheat and barley. But he felt that signing up 180 acres of his 850 acre allotment would be enough for this year. Next year he will probably sign up more after he has seen how this soil bank works out.

**Reasons for not Participating in the Acreage Reserve Program**

Reasons given for not participating in the acreage reserve were numerous and varied. A few reasons, however, were mentioned by more than one operator.

In Gilliam county the reason given most frequently for not participating was the clause which doesn't allow any grazing on the designated acreage reserve during the calendar year covered by the contract. Ten of the fifteen
operators contacted mentioned the non-grazing clause as a reason for not entering into an acreage reserve contract. Seven of these ten operators gave this as their chief reason for not participating, and four of the seven said it was the only reason. In Morrow county, on the other hand, only 4 farmers gave the non-grazing clause as a deterrent to participation and none of these said it was his only reason.

Many non-participants believed barley an unreliable crop. In 1954 and 1956 the barley crop had turned out fairly well over most of the two counties. But in 1955 it had been generally poor to very poor. Wheat crops turned out more consistently, especially in the lighter and shallower soils. There was also considerable complaining that winter barley would often freeze out and the ground would need to be reseeded to spring barley. Most Gilliam county farmers, in fact, don't even attempt to grow winter barley but grow spring barley instead.

Growers of spring barley estimated that it took from 2 to 4 operations in the spring to prepare the seed bed. If they could seed winter barley or winter wheat on the same land, these extra operations would not be required. Besides, when fall seeded crops are grown, the early spring period is available to the farmer to do the plowing necessary for his summerfallow. If this plowing
is delayed by extensive spring seeding operations the quality of the summerfallow will be lessened. A number of farmers stated this factor as one they considered when deciding against participation in the acreage reserve.

In the northern part of both counties rye was considered a better substitute crop than barley. But most farmers had had considerable experience with rye in past years and they didn't want to take a chance of infesting their fields with it. The new rye was reputed to be less persistent than the older varieties but it was too new to have demonstrated this quality as yet. On these lighter soils barley not only produces poor yields in most years, but generally leaves a lighter cover of stubble. The stubble also deteriorates faster than wheat stubble and leaves the land more subject to wind erosion.

Three farmers in each county felt that the final rules for the 1957 Acreage Reserve program came out too late to allow for adequate time to make a decision. One renter said it would have taken too much time and trouble to thrash things out with the landlord in the short intervening time before sign up. Two operators had seeded about September 1 and knew very little about the soil bank then. Others just felt they hadn't been given sufficient time to properly weigh the alternatives. Three farmers in the overall sample suggested there would probably be all the sign up needed next year, since there would be
enough time to prepare for participation.

Uncertainty as to what the support price on barley would be for the 1957 crop, caused a number of farmers to hesitate in signing up. Barley yields were uncertain and the price was expected to go much lower than at present. Wheat, on the other hand, had shown itself a fairly stable crop in the past 15 years and the support price on wheat was known.

About 5 farmers indicated that they didn't adequately understand the provisions of the Acreage Reserve program. They admitted, however, that they had had the opportunity to become informed if they had made a proper effort to do so. Some other comments made by individual non-participants were as follows:-

(1) Farmers are big gamblers. I'm willing to gamble on a yield that is quite a bit higher than my normal yield.

(2) I very nearly signed up 100 percent of my allotment but the ground was fertilized too heavily for barley.

(3) I don't want my wheat acres to go below 400 acres. That figure is too low as is.

(4) They were too late with action on the acreage reserve. Then they kept people confused with changes in dates and rules.

(5) I had my seed wheat all treated so I went ahead and
seeded all my allotment.

(6) The soil bank is too much of a straight hand out. It is like a softening up process for Communism.

(7) My allotment was too small an amount to bother about. I didn't check into the soil bank program.

(8) I didn't understand the soil bank. The landlord never talked about it so I didn't bother.

(9) I don't go along with any of these hand out programs that just cost the taxpayer some more money. I believe in letting the Law of Supply and Demand operate.

(10) We have excellent prospects for a good crop in 1957. The subsoil moisture is better than it has ever been and the ground is all fertilized. Wheat will use these conditions to better advantage than barley or rye.

Those who did not participate in the Acreage Reserve program were asked to suggest a rate per bushel of their normal yields at which it would pay them to put one-half their allotment in a reserve. Twenty-four of the 30 non-participants gave their estimate of the lowest rate they would require. The remaining six farmers would not suggest any rate.

The rate per bushel suggested was taken to the nearest even 10 cents, and the resulting adjusted rates ranged
from $1.20 to $1.70. Fifty percent of the allotment acres of each farm were then listed under the rate quoted by the farm operator and the columns were totalled. To correspond with the total in each column, a percentage was calculated which expressed the portion that this column comprised of the total for all the columns. Figure 5 shows graphically, the cumulative percentage of the total allotment on the 24 farms which would be placed in an acreage reserve at rates of $1.20 to $1.70. The column percentages are accumulated going from left to right on the graph.

The graph indicates that 21.5 percent of allotment acres would go into acreage reserve at the rate of $1.20 per bushel of normal yield which was offered in the 1957 program. Yet none of these acres were actually signed up. The apparent contradiction is explained by the conditions which the farmers would have required to participate. The chief condition specified was removal of the grazing restrictions. Seven farmers said they would have participated at $1.20 if they had been permitted to put livestock on the acreage reserve. Four of their farms were in the large size classification. These farmers usually indicated that they wouldn't sign an agreement at any reasonable rate of compensation if the non-grazing clause remains part of the program. Four others didn't
Figure 5. - Percent of allotment that would be placed in an acreage reserve by a sample of non-participants in Gilliam and Morrow counties at various rates of compensation. Conditions required were:
1. Timely announcement of program rules.
2. Removal of grazing restrictions.
participate this year, at the rate offered, because the rules and sign up dates came out too late.

The relatively sharp rise in the curve in the first rate interval is accounted for by the large allotment on one farm that would come in at $1.30. This farm had an allotment of 2386 acres, which was more than twice the allotment size for any other non-participant in the sample.

A number of farmers and officials expressed some doubt that the Acreage Reserve program would be continued without some changes in rules in 1958 and 1959. One particular change they expected would be a ruling that summerfallow could not be designated as acreage reserve. This opinion was prompted by the fact that the surplus in wheat might be replaced by a surplus of barley and rye if the program were continued on its present basis.

Since such a change in the program was considered possible for the future, all the farmers surveyed were asked, "What is the lowest rate per bushel of your normal yield which you would have to have to participate, if you could not designate summerfallow as acreage reserve?" Forty farmers answered this question. Again the amount of acreage reserve suggested per farm was 50 percent of the farmer's wheat allotment. Rates estimated by the operators in this case extended from $1.20 to $2.20 per
bushel of normal yield.

Figure 6 shows the curve for the cumulative percentage of allotment acres which would go into an acreage reserve as the rates per bushel are increased from $1.20 to $2.20. The graph shows that when summerfallow cannot be designated acreage reserve, there is comparatively little interest in participation at the lower end of the rate scale. But when the rate reaches $1.80 about 47 percent of the allotment acres could be drawn into the program. One farmer quoted a rate of $2.20 per bushel since he considered his calculated normal yield about 60 percent lower than his estimated potential to produce wheat. One of 3 farmers who required a rate as high as $1.90 said his costs of growing wheat were low because he used his brother-in-law's machinery. Furthermore, there was no alternative opportunity for his labor in any case.

In estimating the rates from which Figures 5 and 6 were derived, most farmers were hampered by not having a clear cut knowledge of their costs in producing a cash crop. They had further difficulty with separating fixed and variable costs. The enumerator had to give considerable help in most cases in order to arrive at a considered answer. A number of the better operators, however, had thought along these lines and were able to give a studied estimate with little coaching.
Figure 6. - Percent of allotment that would be placed in an acreage reserve by a sample of Gilliam and Morrow county farmers at various rates of compensation--if summerfallow could not be designated acreage reserve.
Expected Versus Normal Yields

Five farmers in Morrow county estimated that their yields in 1957 would be higher than their normal yields. They were all non-participants. But only two of these operators complained about their normal yields. One said his farm had been an estate during the period on which the normal yield was based. During that time it was farmed very poorly and as a result his normal was about 40 percent below the land's potential to produce. The other stated that his normal yield was set about 60 percent below his estimate, but judging from his neighbor's yields his estimate was undoubtedly too high. On the other side of the picture, there were 4 farmers who indicated that their normal yields were somewhat higher than they had anticipated. The average normal yield for the 24 Morrow county farms was 22.1 bushels per acre and the average expected yield was 23.7.

In Gilliam county eight operators estimated their 1957 yields would exceed the normal. Four of these were participants. One non-participant thought his normal yield should have been set about 30 percent higher, but he had not done anything to get it adjusted upward. He wouldn't sign an acreage reserve agreement in any case because of the non-grazing clause. Only one farmer in this county said that the normal yield set up for his
farm was higher than he would expect to average over a period of years. The average normal yield for the Gilliam county farms was 24.5; the average expected yield in 1957 was 25.9.

In each county the average 1956 yield had been approximately 6 bushels per acre higher than the normal yield. Most farmers denied however that the good crop in 1956 influenced their decisions regarding participation in the 1957 Acreage Reserve program. Similarly, most said they were not influenced by the good moisture conditions in the fall of 1956. In both counties nearly all operators rated moisture conditions at seeding time as good to excellent in the subsoil. The topsoil moisture condition was rated fair to good.

A number of farmers stated that the good moisture conditions were very decidedly a factor in their decision to grow as much wheat as their allotment permitted. But several others, especially in areas where barley is a more reliable crop, said that barley would respond just as favorably to good moisture. The majority of the operators, however, asserted that moisture conditions did not affect their decision. A number said that a single overriding factor like the grazing restrictions, for instance, caused them to disregard other factors.

Gilliam county farmers were using considerably more
fertilizer than farmers in Morrow county. Eleven Gilliam farms had fertilized 5216 acres of their 1957 winter wheat crop and 260 acres of barley. If moisture conditions were good in the spring, one farmer was going to try fertilizer for the first time on his 813 acres of wheat and two farmers planned to fertilize 1021 acres of barley. Another planned to add some more fertilizer to his wheat land if conditions in the spring warranted an additional application. In Morrow county six farmers had fertilized 2180 acres of wheat and 343 acres of barley. Two were planning to fertilize nearly 1000 acres of wheat in the spring if soil tests showed it was needed. One participant planned to fertilize all his 1300 acres of barley.

Of the 17 farmers that had fertilized their fall planted wheat, four had applied fertilizer for the first time. Of the remainder, one fertilized for the first time in 1956; three had started in 1955; five in 1954; two in 1953 and two in 1951. Thirty-one farmers had not fertilized any of the crop they seeded in the fall of 1956. Nineteen of these had never tried fertilizer. The other 12 had tried it in one or two years with usually unsatisfactory results. Two operators hadn't fertilized their fall crop because they anticipated some carryover effects from the fertilizer they had applied to the same land in 1955. They would apply some fertilizer in the spring if
soil tests showed a need for more. Three others stated they would start using fertilizer within a year or two. Two tenants would use it if their landlords approved.

Most non-users felt it did not pay to fertilize. The reason given was usually related to the fact that moisture wasn't adequate for good results in most years. Some fertilized fields, they felt, had actually shown a yield decrease in some of the drier years. One operator estimated that fertilizer would have paid off in only about 3 of the past 10 years. A number of farmers pointed out that 1956 had been a year of good fertilizer results but 1955, on the contrary, was a year in which many lost money by using fertilizer.

Twenty farmers gave estimates of the number of bushels per acre they thought wheat yields might be increased over a number of years with fertilizer. Eight farmers in Morrow county estimated an increase of 5 bushels per acre while twelve Gilliam county estimates averaged 6.7 bushels. Thus it is estimated that Morrow county will produce about 5.6 percent more wheat in 1957 and Gilliam county about 15.1 percent more than would have been the case if no fertilizer had been used. The average application of fertilizer suggested by the farmers was 28.2 pounds per acre. The amounts ranged from 20 to 40 pounds per acre.

Only six operators (all in Gilliam county) thought
they had had enough experience with fertilizing barley to give an estimate of yield increases that might be expected. The average of the six estimates was 9.5 bushels per acre.

The Conservation Reserve Program

Only three farmers in Morrow county and two in Gilliam county thought they would put any of their land into the conservation reserve. Of these five only one showed any degree of enthusiasm for the program at present rates of payment. This farmer had put all his 940 acre allotment in the acreage reserve and planned to participate in the conservation reserve to the limit as well. At $12 per acre he would sign up acreage to the limit of $5,000 and more if this limit should be raised.

Two other large farmers in Morrow county planned to sign up 160 acres and 144 acres respectively. The land they were putting in the reserve was of somewhat inferior quality. The fields in each case were on one of their farms where they didn't run any livestock. In Gilliam county a large farmer planned to put 300 acres into the conservation reserve. This field was some of his steeper and rockier land and he thought the big difference in returns from wheat and grass wouldn't last. A small farmer in Gilliam county planned to sign up a field of eleven acres.
The other 43 farmers didn't think they would participate in the 1957 Conservation Reserve program. Probably the most typical reason given by small to medium farmers for not participating was related to lack of adequate land. Several smaller farmers said they needed all their land for their livestock. The implication, of course, was that a certain amount of land would always be allocated to wheat production. The remainder of available cropland could be used in any one of several ways, including the production of feed and grazing. Even where the small farmer had no livestock, he believed he could make more than $12 per acre by growing cash crops.

On medium and large farms, too, many operators said they could net more from cash crops than the conservation reserve payments provided. Others implied the same thing by statements such as: (1) None of my land is that marginal. (2) I have no canyons or inferior land. (3) The payments for the conservation reserve should be made more attractive. It is the better of the two parts of the soil bank.

Several expressed the thought that they couldn't really get an adequate grass crop started on their land. One operator expected cheat grass, a common weed in the area, to crowd out the seeded grass. Another thought sage brush would take over. One believed that if grass
isn't grazed or mowed for several years, it will mat down and kill itself out. Another farmer expressed the opinion that erosion would be severe in the first two or three years while the grass was getting established.

Three farmers in Morrow county didn't wish to commit themselves to another program that required seeding some land down to grass. They had put some of their land in grass under the Agricultural Adjustment program. When the Allotment program came along they were given only partial credit on this land toward a wheat allotment. Farmers who had broken up their grassland before allotments went into effect, were able to get full credit on that land. One of the 3 farmers said he wouldn't take the chance of losing some more allotment acres with another switch in programs.

The Soil Bank base, by definition, doesn't include land in conserving and idle uses. Consequently summer-fallow acres are not included in the base calculated for each farm. The base for a wheat-summerfallow farm is, therefore, usually about 50 percent of cropland acres, while on an annual cropping farm it is close to 100 percent of the cropland. A number of farmers felt this arrangement was inequitable and wanted higher payments for wheat-summerfallow areas. The typical suggestion was that the rates be doubled.

The length of time covered by a conservation reserve
agreement was another factor that caused several operators to hesitate in signing a contract. One farmer said that two or three years from now he might wish to use his land for a different purpose entirely. But the contract would bind him to the minimum 5-year agreement. Another simply stated, "you could get stuck badly with a 5-year contract."

The need to make provisions against grazing was frequently given as a deterrent to participation in the program. The costs for putting a fence around the reserve acres were considered prohibitive in view of the limited compensation offered. Several operators would be interested in putting small patches of their cropland in the conservation reserve but felt that grazing would have to be permitted on these small acreages. The small plots would consist of bad slopes or other 3 to 5 acre lots of inferior land. They would be scattered throughout larger fields and fencing would be highly impractical.

None of the farm operators expressed any sentiment for putting all his eligible acres into a conservation reserve. Not even the smaller farmers seemed to think in terms of alternative opportunities that existed for their labor in a city, if they moved off the farm. They appeared to be quite determined to continue living on their farms regardless of the limited economic means these farms could provide. They were, therefore, not inclined to put their
whole farm into the soil bank unless the payments would equal or exceed the income they would expect to receive from their crops.

An effort was made in the survey to determine a rate of compensation that farmers would consider necessary to surrender all their crop-growing rights for a period of several years. Each operator was asked to state the lowest rate per cropland acre which he would have to have to place all his cropland into a conservation reserve type of arrangement. He could assume the same regulations for length of contract, cover establishment, etc. as the present program calls for.

Seventy-five percent of the farmers gave a minimum rate per cropland acre that they would require to surrender their crop-growing rights. The other 25 percent would not state a rate. A number of these operators felt they would have to have more time to give a proper answer. Most others simply felt such an arrangement could not be made compatible with their livestock enterprises. They would either have to get out of the livestock business or buy most of the feed needed.

The rates quoted per cropland acre were taken to the nearest even dollar and 33 of these rates were in the range $6 to $20 per acre. Three farmers gave rates that were higher than $20 per acre. The number of acres of cropland
on each farm were listed under the rate given by the operator. Then the total number of acres were determined for each rate and each total was expressed as a percentage of all the cropland on the 36 farms. Figure 7 shows a graph of the accumulated percentages of cropland that would be placed in a conservation reserve type of program if the rates per cropland acre were progressively increased from $6 to $20. The solid line on the graph shows that 2.5 percent of cropland would come in at $6 and a little over 92 percent could be drawn into the program at $20 per acre. The lower rates of $8 and $10 were quoted for a number of the bigger farms. Their large acreages account for the sharp rise in the curve over the first two rate intervals.

The broken line in Figure 7 represents a general supply function of cropland at various rates per acre. This function was estimated from the actual data which go into making up the solid line graph. An exponential regression equation of the form \( \hat{Y} = y'(1-Ce^{Kx}) \) was used to derive the function. The symbols in the equation have the following meanings: \( \hat{Y} \) is the calculated percentage of cropland; \( y' \) is the theoretical maximum percentage of cropland that could come into the program; \( C \) is a constant; \( e \) is the base of natural logarithms; \( K \) is a constant; and \( x \) is the rate per cropland acre. The actual fitted equation was \( \hat{Y} = y'(1-1.6778e^{-0.1638x}) \).
Figure 7. - Percent of cropland that would be placed in a conservation reserve by a sample of Gilliam and Morrow county farmers at various rates of annual compensation.
The logic for the equation used is related to the problem. We find that as the rates paid per acre become higher and higher the amount of land drawn into the program comes closer and closer to 100 percent of all the cropland. The equation therefore fits the case well since $y'$ can be set at 100 percent, and this goal is approached but never quite attained as the rates keep increasing.

There are some limitations to the wide application of the function, however. Only 75 percent of the farmers interviewed stated a rate at which they would take their land out of crop production. Thus the function is not entirely representative of all farms in the two counties. Many of the farmers, furthermore, didn't feel sure of the rates they quoted. There is also the likelihood that many farmers would require higher rates than they quoted as soon as it became apparent that participation was going to be extensive. If a relatively large portion of cropland were signed up, the prices of farm products would rise. Then it could become more lucrative to farm the land rather than bank it.

The approach used in deriving this supply function of cropland might be useful, however, if a program for taking whole farms out of production were to be implemented. If the administrator for such a program had similar schedules from major types of farming areas, he could
estimate approximate costs of the program and rates at which desired amounts of land would be taken out of production. Various commodities would be affected at different rates.

The supply curve in Figure 7 suggests that the wheat surplus in Gilliam and Morrow counties could be reduced somewhat more cheaply by a program of banking all cropland rather than by the Acreage Reserve program. The payments to acreage reserve participants in the two counties in 1957 will be about $27.30 per acre to remove 16.5 percent of the total wheat allotment. Approximately the same cutback on wheat acres could be accomplished by retiring 16.5 percent of all cropland, if whole farms were taken out. From the curve in Figure 7, it is estimated that $6.85 per cropland acre would retire about this much land. But since allotments constitute only 32 percent of all cropland in the two counties, the cost for reducing wheat acres would be about $21.40 per allotment acre. A further advantage to retiring whole farms would be that other potentially surplus crops could not be grown. Under the Acreage Reserve program, in summerfallow areas, it is possible to grow feed crops on land diverted from wheat.

A program that takes complete farms out of crop production could be an efficient means of reducing farm surpluses. Politically, however, the program might not
be acceptable if there were not a limit to payments that any one farm operator could receive. Large farm operators would draw nearly all the benefit payments, since they would tend to be the ones to participate at the relatively low rates that likely would be offered. The survey showed that on the average, large farms could be drawn in at lower rates. The average rate quoted by the large farmers in the two counties was $10.30 per cropland acre. Medium size farms averaged $13 per acre and small farms would require an average of $18.50 per cropland acre for taking out their whole farms.

A large Morrow county farmer indicated he would bank all his 7,000 acres of cropland at $8 per acre. At this rate he would realize an annual rental payment of $56,000. At the same rate, the small farmers with their 450 acres of cropland, on the average, could receive only $3600 per year as a payment. It is unlikely that many small farmers would surrender their crop growing rights for such a small payment. Nevertheless, the graph shows that at $8 per acre about 27 percent of all cropland could be drawn out of production. This amount of land withdrawn from cash crop production would help to reduce farm surpluses rather quickly.
Farmers' Comments on Wheat Programs

All farmers were invited to express their opinions on wheat programs in general and to name the program they preferred. Fifty-six percent, or 27 of all the farmers who were interviewed named a program of their choice. Ten percent said they would prefer to have the government out of wheat programs entirely. The remainder did not state any preference but a few had suggestions of a general nature.

The Soil Bank program was preferred by eleven farmers but usually some modifications to the present program were suggested. The most common suggestion was that the acreage reserve should be emphasized less, and greater compensation should be provided for taking marginal land and small farm units out of cash crop production. Such action would help to cut back on the overall farm surplus. Heavy participation in the acreage reserve, they felt, would create a surplus in the feed grains.

Most considered fencing off reserve acres as impractical and too costly. Present grazing restrictions should therefore be modified considerably to give more people an opportunity to participate in the soil bank.

Two Morrow county participants expressed some concern over the inequities in the present Acreage Reserve program. They felt that wheat-summerfallow farmers were
getting too good a deal, relatively, since they could get an acreage reserve payment and grow an alternative crop besides.

Twelve farmers cast their votes for the Two-Price plan or some modification of this plan. Essentially, they wanted some wheat to be made available to the feed market. Since their diverted acres were being devoted to feed crops in any case, they thought they might as well grow wheat for feed. They preferred growing wheat because their land was better adapted to this crop than any other, and crop failures in wheat were less frequent. Fall barley would often freeze out, and growing spring barley caused a delay in other necessary spring operations. Raising spring barley, furthermore, results in some ground lying bare during the winter and leaves this land more subject to erosion.

Two operators intimated that many farmers weren't cooperating to make the soil bank a success because they wanted the two-price plan for wheat. One indicated that the leading farmers in the county are for the two-price plan but they weren't going to push it at present. They would wait until the soil bank had failed for lack of participation. By then the present government administration would be more amenable to their persuasion.

One farmer would like to see a program like the one
used in Canada. Such a program would set a quota on the number of bushels a farmer could market rather than restrict the acreage he could plant to wheat. Another suggested a general country wide allotment program. All farmers throughout the U.S. would be required to reduce their crop acres by a given percentage. A relief in taxes would be used to partly compensate for the loss of income.

Other suggestions pertained mainly to changes for the Acreage Allotment program. Two farmers objected to this program permitting the growing of "hot wheat". Hot wheat is a term applied to wheat grown by farmers who ignore their allotments entirely. They seed as many acres as they desire and pay the penalty required by the program for excess acres. The farmers who objected to this practice, wanted the penalty to be made so restrictive that a farmer could not afford to overseed his allotment. Another farmer would like to see the "wheat base" based on a ten year average of wheat acres instead of only the three year average, 1951-53. This would result in a smaller base to farmers who plowed up new ground in more recent years. The allotments could then be increased somewhat to those farmers who had been growing about the same number of wheat acres all along.

A small farmer wanted allotments for small farms to be proportionately higher than on the bigger farms. He
felt this was the only way the little fellow could stay in business. Among small farmers in general there was considerable foreboding on their chance to survive the ever increasing cost price squeeze. One of them opined that ten years from now there wouldn't be any farms of his size left. The majority felt that past government programs had not been designed to help the small farmer. In fact, two operators suggested that these programs had been conceived to give the small farmer an ever decreasing chance to compete with the larger operators.
CHAPTER VI

SUMMARY AND CONCLUSIONS

Two surveys were conducted during the fall of 1956 to study participation of Oregon wheat farmers in the 1957 Soil Bank. Only about 14 percent of the state's total wheat allotment was signed up in the acreage reserve by winter wheat producers. One of the reasons for undertaking the study was to investigate the causes for this relatively small participation in the acreage reserve. The Conservation Reserve program was examined from the point of view of getting farmer's opinions about it and to find out what their intentions were regarding participation in the program. Farmers and county officials were also invited to express their opinions on ways of obtaining greater participation in the soil bank in the future.

East of the Cascade Mountains there was fairly general agreement that the rules and sign up dates for the 1957 Acreage Reserve program were scheduled too late for maximum participation by winter wheat growers. Wheat-summerfallow farmers who fertilize their land during one of the several summerfallowing operations, should have known the rules as early as the spring of 1956. In that case they could have fertilized less heavily or they might not have applied any fertilizer, depending on the crop they
planned to grow on the land. Some other farmers might have summerfallowed fewer acres in anticipation of leaving some acres idle in 1957.

Many farmers had made final plans and arrangements to seed all their allotment to wheat by the time the final rules for the program were announced. Others had seeded much or all of their wheat by the first sign up date. Still others who would have placed more than 50 percent of their allotment in the acreage reserve, were not prepared to postpone their seeding until such further sign up could be authorized. Some renters didn't have sufficient time to negotiate with their landlords, especially when these negotiations had to be arranged by mail.

To accommodate all potential acreage reserve participants, then, it would have been necessary to announce the rules for the 1957 program early in the spring of 1956. The final sign up date on a "first come--first served" basis should have been set about August 25 for winter wheat growers. If by that date available funds had not been exhausted by farmers who signed up to 50 percent of their allotment, there would have been sufficient time before normal seeding dates to sign up more than 50 percent of some allotments.

The chief impediment to acreage reserve participation in the Willamette Valley seemed to have been the low
level at which the normal yields were set. Nearly all the farmers thought they could grow more wheat per acre on their land than the suggested normal yield. Similarly in Union and Jefferson counties, low normal yields were thought to have been a strong deterrent to acreage reserve participation. Jefferson county's irrigation farmers were particularly dissatisfied. Most thought they could raise about twice as many bushels per acre as their normal yields provided. In the Columbia Basin a section of farms in northern Sherman county showed their displeasure with their normal yields by placing a very small acreage in the reserve.

Generally speaking, the regions that indicated the greatest dissatisfaction with their normal yields were those which had obtained the best response to fertilizer in recent years. Normal yields, which were based on an average of 1945-1954 yields, didn't include the last two years when fertilizer was used quite extensively and gave favorable results. In the crop year 1956, the response to fertilizer was especially good over most of Oregon's wheat areas. Improved wheat varieties, the addition of more irrigated land, and other factors have further tended to boost more recent yields.

To bring normal yields more nearly into line with expected yields, a number of county officials suggested that the normal yields be weighted heavier in favor of
more recent yields, or simply that an average of the past 5 years should be taken. It is generally believed that in areas where farmers are dissatisfied with their normal yields, there will not be a substantial increase in acreage reserve sign up in the next two years.

Despite dissatisfaction with normal yields, some farmers who participated found they could use their acreage reserve to good advantage. On irrigation and in more humid areas, the designated reserve acres could be used to start a hay crop, or a grass or legume seed crop. In some cases, fields infested with weeds were designated as acreage reserve and these fields will be summerfallowed during the contract year. Some farmers will grow green manure crops on the reserve acres to help restore fertility to the soil. A number will qualify for agricultural conservation payments on cover crops on the same land for which they receive acreage reserve payments.

In the semi-arid regions, where a summerfallow wheat rotation is commonly used, some of the land to be fallowed in the contract year can be designated as acreage reserve. Here the feasibility of growing crops that can be substituted for wheat, becomes an important factor in decisions pertaining to acreage reserve participation. Those who can realize a net profit from an alternative crop have an added incentive to participate. The farm survey
in Gilliam and Morrow counties indicated that all the participants could raise a fair to good barley or rye crop. Only 2 out of 18 participants felt they would have participated if they had not been permitted under the program to grow another crop on acres diverted from wheat. The two farmers thought the acreage reserve payments alone were greater than the net returns they could expect from an average crop of wheat.

The farm survey showed that the grazing restrictions of the Soil Bank program can be a serious obstacle to participation. This was brought out particularly in Gilliam county where most farmers with wheat allotments also have a considerable number of livestock on their farms. Except during the spring and summer growing season, this livestock usually has access to any portion of the farm unit—including all the cropland. To ensure against grazing, therefore, the acreage reserve would need to be fenced off from the rest of the cropland. Such an operation is considered too costly since the fence would be needed only during part of the contract year.

Regulations against grazing also apply to the conservation reserve. Here again, on large scale wheat farms that keep some livestock, provision has to be made to fence off the reserve acres if the stock is to have access to the surrounding fields. Most farmers seemed to think in terms
of plowing up the conservation reserve and returning this land to cash crops as soon as the contract had expired. At that time a fence would become unnecessary and would probably be removed to give greater flexibility to farming operations.

There is a need for a study in the wheat-summerfallow areas to determine the amount of grazing that would be provided by acreage and conservation reserves. It is suggested that in these relatively dry areas the amount of feed added to the normal supply would not be very significant. In fact if acreage reserve grazing were permitted, the available amount of grazing would be the same as under the allotment program. Whether a stubble field is designated an acreage reserve or not, it would be handled the same way. In either case it is left in stubble till spring. Then it is fallowed until fall when it is seeded to a crop. Thus if grazing restrictions were removed, the participant would not derive any more grazing from his fields than he would if he did not sign up in the acreage reserve program.

In the case of the conservation reserve there is usually considerable difficulty in establishing a proper stand of grass in drier areas, and little growth of consequence occurs in the first few years after seeding. Over most of the 5 year minimum period, as a result, there wouldn't be much grazing possible on the conservation
One Morrow county farmer felt that the usual grass cover in his county would be Crested wheat Grass. He believes that cattle find this grass palatable only in the early spring while it is tender. During the remainder of the year they don't normally graze on it if there is other grazing available.

There would probably be a considerable increase in soil bank participation if wheat-summerfallow farmers were allowed to run livestock on their reserve acres. But it is likely that annual cropping farmers would then demand similar privileges. Furthermore, if grazing were allowed on conservation reserves it would hurt the chance of getting a grass crop established. Consequently farmers would be more apt to break up the land and return it to cash crops when the contract expired.

Nearly all farmers were interested in acquiring more cropland to bring down their overhead costs, rather than in reducing the amount of land on which they could grow crops. Thus they looked upon the Soil Bank program as a temporary expedient. They would place land in the bank only if the returns under the program promised to be greater than the land could produce out of the soil bank. The insurance aspect of the program did not seem to have a great deal of appeal to the average operator. One reason for this optimism among most farmers was that they hadn't
had a crop failure since the 1930's.

There was considerable hesitation to enter into a 5-year conservation reserve contract. Marketing conditions for wheat, for instance, might change substantially in just two or three years. A combination of drought and the successful operation of the Acreage Reserve program could reduce wheat stocks quickly. In the fall of 1956, the sharp increase in exports and prices of Pacific Northwest wheat were looked upon as a demonstration of the way foreign markets could help reduce the surplus in a hurry. It is conceivable then, that acreage restrictions on wheat production might be removed while conservation reserve contracts were still in force. Reserve acres would then be under contract and would not be available for wheat production.

A number of farmers and county officials would like to have the minimum length of contract in the conservation reserve reduced from five to three years. The writer, however, believes that such a move would go a long way to defeat the purpose of the program. Three years would be little more than adequate time for a legume crop to restore fertility to depleted land. This land with its increased potential to produce, could then be returned to production of surplus crops.

The suggestion was also made that the $5,000
limitation on annual payments in the Conservation Reserve program should be increased considerably. The danger in such action, however, would be that some of the more competent and ambitious operators might take advantage of the program and move off the farms. Most communities could ill-afford the loss of this type of farm operator.

Among the small operators in Gilliam and Morrow counties there seemed to be no inclination to study the soil bank from the point of view of putting the whole farm into the bank. Most of these farmers seemed to show lack of adequate knowledge about the rules and regulations of the Conservation Reserve program. It appeared unlikely, furthermore, that they would do much to become better acquainted with the regulations. They had more or less accepted the verdict of some of the community leaders that the program was discriminatory, since summerfallow was not counted in the Soil Bank base. Thus it was frequently assumed, without further investigation, that the conservation reserve couldn't fit the interests of the wheat-summerfallow farmer. In any case, they usually felt they needed all their land for their livestock or to help employ their machinery and labor.

The details of the Conservation Reserve program are not easily understood by the average farmer and it might be well for the U.S.D.A. to prepare small brochures explaining
the program in simple language. This might be done largely with the use of frequent examples based on the type of area in which the pamphlets would be circulated. For example, one pamphlet might be prepared for and circulated in the Columbia Basin of Oregon and Washington.

Examples showing payments available for taking the whole farm out of crops could prove especially useful. Since many farmers don't think in terms of taking the whole farm out of crop production, they usually haven't tried to determine the total amount of compensation they could draw under such an arrangement. An example based on a farm similar to that of the reader of the pamphlet, might create sufficient interest to get him to seek further information at his local ASC office.

A program for taking out whole farms might be considered by more farmers if the annual rate offered were based on cropland rather than on Soil Bank base acres. Unless it is specifically calculated, farmers are not aware of the size of their Soil Bank base. A special non-diversion rate is then applied to additional eligible acres that may be banked. On the other hand, all farmers are aware of the number of cropland acres they own. If a rate per cropland acre were quoted for retiring all their land, they could readily determine the annual rental that would be available under the program. With this arrangement it
is likely that more farmers would give adequate consider-
tion to putting their whole farms into the soil bank, even
if the total payment were no higher than under the present
program.

The Acreage Reserve program seems to be understood
quite well by nearly all farmers. Those who hesitated to
sign up in the 1957 program because it was new, will gain
further confidence in the program when they see how their
participating neighbors fare during the first year.
Participation in general, in 1958, will likely be influ-
enced considerably by the experience of participants with
the program in 1957.

The farm survey in Gilliam and Morrow counties
indicated that a program for putting whole farms in a
soil bank could be a cheaper method for reducing the
wheat surplus than by employing the Acreage Reserve pro-
gram. In 1957, the cost for taking out 16.5 percent of
the wheat allotment in the two counties will be about
$27.30 per acre under the Acreage Reserve program. Under
a program for taking out whole farms, the estimated cost
would be $21.40 per allotment acre for removing an equal
amount of wheat land. Besides, if whole farms were
retired other potentially surplus crops couldn't be pro-
duced on these farms. The Acreage Reserve program permits
the growing of feed crops on land diverted from wheat in
the summerfallow areas.

Politically, however, it might not be feasible to reduce the surplus by paying a set rate per acre for taking out whole farms. The survey showed that large farmers would retire their farms at substantially lower rates per cropland acre than would the small farm operators. The supply curve in Figure 7 suggests that nearly 50 percent of all cropland in the two counties could be taken out of production if the rate offered per acre were set at $10. Most of this land, however, would consist of large farms since the small farmers in the sample interviewed, would have required an average of $18.50 per cropland acre to put their whole farms in a soil bank.

Since the retiring of 50 percent of all cropland would be more than adequate to effectively reduce the surplus, the rate offered for such a program would likely be less than $10. Participants would then consist mostly of larger farms and the benefit payments would go to large operators. Such a program would therefore work contrary to the intent of the Conservation Reserve program, which was designed to take out the small, uneconomic size of farm units.

2. Bray, J. O. Unpublished research on past wheat price policy. Manhattan, Kansas, Agricultural Experiment Station, Dept. of Agricultural Economics, 1956. 34 p. (Mimeographed)


