

WAR PRODUCTION AND SOIL CONSERVATION IN ILLINOIS

OREN L. WHALIN

University of Illinois, Urbana, Illinois

If "food will win the war and write the peace," as the Secretary of Agriculture has said, Illinois farmers have a very important part to play in accomplishing the desired result. Farmers are being asked to increase production, especially of animal products—milk, eggs, pork, lard, beef; vegetable oils—soybeans, peanuts, flax; and vegetables. The increases are needed both for domestic consumption and for use of the allies. Not only is Illinois an important livestock state, but is very important in both corn, the leading feed grain, and in soybean production.

Illinois crop acreage has been shifting from more erosion-causing crops to erosion-control or prevention crops since the AAA program came into existence. The accompanying table lists the important Illinois crop acreage for the 1930-32 period, 1941 and intended for 1942. Under the AAA program corn and small grain acreage decreased and hay and rotation pasture increased, up through 1941.

Soybeans increased greatly during this period, partly because of the AAA program and partly as the natural development of this new crop. (See Table 1.)

The shift in crop acreage was accompanied by increased yields so that total production was maintained. This acreage shift, accomplished through the emphasis of the AAA, the Soil Conservation Service, and the teachings of the Agricultural Extension Service, was accompanied by increased use of limestone, contour farming, terracing and deep rooted legumes. Limestone use averaged 405,000 tons for the state for the period 1930-32, compared with 2,650,000 tons in 1941. Alfalfa hay increased from an average of 253,000 acres for the period 1930-32 to 583,000 acres in 1941. The sweet clover acreage increased from an average of 835,000 acres for 1930-32 to 1,243,000 acres in 1941. Illinois farm advisers reported that 66,000 acres were contour farmed and 30,000 acres were

TABLE 1.—ACREAGE OF IMPORTANT CROPS IN ILLINOIS, 1930-32, 1941, AND 1942 INTENTIONS

Crop	1930-32	1941	1942 Intentions
Corn.....	9,603,000	7,645,000	8,027,000
Wheat.....	1,932,000	1,776,000	1,226,000
Oats.....	4,337,000	3,534,000	3,571,000
Barley.....	343,000	135,000	200,000
Soybeans alone.....	810,000	2,743,000	3,703,000
Tame Hay.....	2,554,000	2,698,000	2,750,000
Total.....	19,579,000	18,581,000	19,477,000
Corn and Soybeans.....	10,413,000	10,388,000	11,730,000
Small Grains.....	6,612,000	5,495,000	4,997,000

terraced in 1941. The use of phosphates increased greatly also. Erosion was definitely being checked, fertility was being improved and crop yields were increasing as a result of the shifts being made in Illinois farming.

Under the war production program goals have been set for 1942. Increases were asked for most crops and for all livestock and livestock products. Two important exceptions in 1942 were wheat and oats. The wheat supply was excessive and soybean increases were being asked for in place of part of the oat acreage.

Farmers' intentions in Illinois for 1942 (Table above) indicate that feed grains and wheat will be held pretty well in line with the goals set for them and the soybean acreage will exceed the goal. The combined acreage of corn and soybeans planned shows a 13 per cent increase above the 1941 harvested acreage while small grains indicate a 9% decrease due largely to the drastic decrease in wheat acreage. The wheat acreage decrease was partly due to weather conditions. The hay acreage is expected to be slightly larger than in 1941, but the rotation pasture is likely to decrease in favor of soybeans.

Legume seedings are not expected to increase in 1942 and it is very doubtful if limestone applications can be maintained at the level prevailing during 1940 and 1941. This shift in crop acreage for 1942 will undoubtedly increase production of the crops especially needed, as well as total production and will remove more soil fertility. Less soil conservation and improvement is likely to be practiced.

The period of war production will extend beyond 1942; in fact the period most often mentioned is five years. Thus production without seriously increasing soil erosion becomes a paramount problem. Both crop and livestock production must be and will be forthcoming. To the extent that the livestock is produced on the same farms as the feed that they consume, the soil conservation problem will be minimized, both because of the rotations followed and because of minimum loss of fertility where the manure is properly handled.

The goal of production is the greatest total production over the five year period. To secure this maximum production it will be necessary to use the soil to the utmost, but it will also be necessary to grow enough legumes and to carry on sufficient soil building practices so that the soil will continue to produce approximately as much as it has in the past.

Conservation is the key to securing maximum production. Conservation is "use without waste." To obtain this maximum production without serious waste the following suggestions are offered:

1. Farm the level, highly productive land harder rather than plow up the rougher, poorer land that would be subject to severe erosion when planted to a cultivated crop.
2. Seed all small grains to a legume.
3. Make sufficient seeding of legumes and grasses each year to assure an adequate supply of hay and pasture in the following year.
4. Contour clean-tilled and small grain crops on sloping land to increase yields and save soil and water.
5. Apply limestone, phosphate, and other fertilizers, where needed, to the maximum of availability and feasibility.
6. Make special effort to get barnyard manure out on fields where greatest return in production will result and refrain from wasteful burning of crop residues.
7. Leave wide grassed waterways in fields being broken out of sod, and establish new grass waterways in the natural drainageways in other fields.
8. Use terraces and strip farming where it appears desirable to cultivate land too steep to be handled satisfactorily with just contouring.
9. Plant soybeans on level land as far as possible. Where planted on sloping land, plant on the contour and follow with winter cover crop.
10. Adjust rotations in line with goals, and the physical and fertility characteristics of the soil.

Through maximum use of the above practices it should be possible to obtain the production being asked for without serious permanent depletion of the soil during the war period.