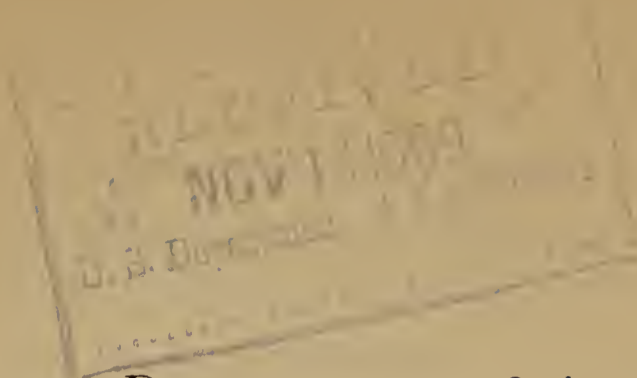


1
PG 91 & Fc



Issued June 16, 1909.

B. P. I.—485.

No. "A"—66.

United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

Farmers' Cooperative Demonstration Work,

WASHINGTON, D. C.

FARM NOTES.

THE CORN CROP.

The great American grain food for men and stock upon the farm is corn. Therefore the growing of an abundant supply of corn is one of the essentials of good farming.

Corn is a tropical plant, and all other things being equal it should thrive better in the Southern than in the Northern States. This, however, is not the case. What is the reason? The main cause is the lack of suitable seed beds in the South.

Experiments have shown that, while it sends many of its roots 3 or 4 feet deep, the corn plant places the great body of its feeding roots from 3 to 12 inches below the surface where the soil is made loose enough by plowing or by frost to permit it. The roots send out in every direction an infinite number of hairlike growths, which absorb moisture and food. On soils properly prepared and in sections of fair rainfall the feeding ground for corn is usually from 2 to 12 inches below the surface. This is strictly true in the great corn belt of the Northwest. In the South there has been too much shallow plowing. Breaking 3 or 4 inches is not deep enough to make a suitable feeding place for corn roots; on average land it furnishes neither sufficient food nor sufficient moisture for the plant to do its best. The trouble with a shallow seed bed is that it is too wet under heavy rainfall and too dry in periods of drought. A long advance will be made toward increasing the average yield five-fold if the following suggestions are carried out:

- (1) Make a deep seed bed, suited to the requirements of the corn plant.
- (2) Fill this seed bed with vegetable matter and give it good drainage.
- (3) Use the best seed.
- (4) Practice intensive cultivation.

The disk plow, the adjustable tooth harrow, and the weeder are valuable aids in producing the corn crop.

THE COWPEA CROP.

The cowpea is a part of the corn problem in the South, and the plan generally adopted of broadcasting half a bushel to a bushel of seed to the acre at the time of the last working of the corn and cultivating it has given good results.

The corn should be gathered as early as practicable and the stock turned in. Fortunate is the man who has tight fencing so that the pigs, as well as the work stock and cattle, can have a chance at the cowpeas. On some of the poorer lands, the corn rows may be made 6 feet apart and a row of peanuts planted between them; this will add to the value of the fall pasture when no cowpeas are planted. As soon as the crop of cowpeas has been fairly well grazed, break deep, setting the furrows on edge; harrow; sow to oats, vetch, winter barley, or rye, and turn this under in the spring. This plan will economically improve the soil and greatly increase the average crop production.

Where the season is too short to successfully carry out the foregoing plan it has been found that planting vetch and rye or crimson clover in the corn and turning them under in the spring rapidly builds up the soil and is much more economical than the use of large quantities of commercial fertilizers. The general object is to keep the land occupied summer and winter, producing something of value for food or fertilizer, and to do as much of the work with machinery as possible.

MORE HORSE POWER.

To use more horse power and less man power per acre or to quit farming is a necessity confronting the South.

There should be more mares on the farm. In the future few small farmers will find it profitable to keep mules; the colts must pay the expense of using more horse power. In this connection, the more economical feeding of work stock on the farm is of primary importance. Feeding a horse or a mule on pulled corn fodder and corn is so expensive and out of date that it is surprising to find anyone doing it. Farmers have fully proved that pasture for summer and well-cured hay for winter should be the main reliance. By a pasture is not meant a brush patch or a field of weeds, but a tract of land well set in nutritious grasses and well located so as to be usable at all times.

The best results are obtained by providing two pastures, in order to alternate in their use, and especially to allow one to have quite a growth of grass for late fall feeding. Some farmers use one pasture for late fall and spring, and the other during the summer and early fall months; others believe that the best results are obtained by alternating the use of these pastures every month. It is just as injurious to the rapid growth of grass to keep it closely grazed as it would be to a bush to cut it off every morning. It is estimated that three or four times as

many animals can be kept on a given number of acres by dividing the land into two pastures and using them alternately for grazing. It is certain that the stock does better under such conditions.

THE HAY CROP.

The permanent meadow, where it can be secured, is one of the most economical sources of food for animals known. In the extreme South, where the soil is adapted to them, alfalfa and Japan clover rank high. Farther north there are standard grasses which produce well. But if a farmer does not have a permanent meadow of any kind, what then?

In such a case the farmer should plow up some field and plant to cowpeas or sorghum and cowpeas, $\frac{1}{2}$ bushel of sorghum and $1\frac{1}{2}$ bushels of cowpeas per acre, broadcasted, being often satisfactory. The quantity of sorghum and cowpea seed to be used to the acre can not be definitely stated for every locality. The strength of the soil and the moisture should largely determine the quantity required. From 2 to 4 tons of superior hay can be secured in this way, and if properly cured, it is one of the best hay crops known. The sorghum gives flavor to the cowpeas and balances the ration. It should be cured without being wet and without too long exposure to the sun, so as to retain all of its nutritive value and flavor.

It should be a discredit to any farmer to buy hay or corn for his farm, unless under exceptional circumstances.

S. A. KNAPP,
Special Agent in Charge.

Approved:

B. T. GALLOWAY,
Chief of Bureau.

May 29, 1909

A10—54



