

corn will take sufficient moisture from a ten-acre field to grow about fifty bushels of corn, or, in other words if the weeds are present the yield will be reduced by that much. There are a number of weeds commonly found in corn fields that are equally heavy consumers of moisture. From an economic standpoint the corn field should be kept free from weeds.

Corn is one crop that responds to proper cultivation. Keeping the surface stirred stimulates growth even in a dry season, but, there is a right and a wrong way of cultivating corn, and failure to observe this has resulted in more than one promising crop being given a setback. The corn plant has an extensive root system; the soil between hills or rows becomes filled with fibrous roots or feeders before the end of the season. These roots increase as the plants develop. At first there is only a small bunch right in the row and the cultivator can be run quite deeply without injuring the crop; but, as the season advances the roots spread and may come quite close to the surface, so that a deep cultivation would bring growth to a standstill for a time. Therefore, the best practice is to start with a deep cultivation to loosen up the soil so as to aid in conserving moisture, then run a little shallower with each succeeding cultivation.

A year ago a certain field of corn was making rapid growth. It was cultivated each week by one man who aimed at keeping a dust mulch between the rows. When the corn was about four feet high this man was away on cultivating day, and his brother undertook to do the work. He thought the soil should be loosened up, and gave the cultivator a couple of notches more than his brother had been accustomed to. He was congratulating himself on doing a good job, but when crossing the field at noon he noticed that where he started the leaves were drooping and the crop was beginning to take on a sickly appearance. He was unable to account for this until he learned that he was cultivating about two inches deeper than usual. Evidently the feeders growing quite close to the surface were severed from the plants. At any rate the crop never entirely recovered from the shock it received. Keep the cultivator going, but don't let it run shallow one week and put it in deep the next. Either keep at a uniform depth all season, or else start deep and gradually run shallower as the season advances.

England's Increasing Cultivation.

EDITOR "THE FARMER'S ADVOCATE":

Spring cultivation having been completed, the County War Agricultural Committees are now devoting their attention to the great business of increasing the arable acreage for next autumn and spring sowings. The Board of Agriculture are endeavoring, with the assistance of the Committees and the loyal co-operation of farmers, to reproduce as far as possible the conditions which obtained in England in 1875.

The statistics on the subject, dealing with different parts of the country, are in the hands of the local organ-

izers; and the following figures taken from the official records are instructive as indicating agricultural practice forty years ago and recently:

	1875 Acres	1916 Acres
Clover and rotation grasses....	2,608,106	2,311,267
Other arable land.....	10,967,920	7,990,886
Total arable land.....	13,576,026	10,302,153
Permanent grass.....	10,536,283	14,015,840
Total acreage under crops and grass.....	24,112,309	24,317,993

It will be seen that in the space of forty years the area of land under rotation crops was allowed to decrease by 3,273,873 acres, and at the same time 3,479,557 acres were laid down to pasture. In view of the lessons enforced by the war it is obviously desirable to alter this state of things, and to bring back thousands of acres now under grass to produce food for the population.

The result of fairly exhaustive inquiries by the writer shows that only in comparatively rare instances are the War Agricultural Committees likely to find it necessary to exercise the enormous compulsory powers they possess to enter upon land through the failure of the occupier to speed up production. Furthermore, there has been very little friction in connection with the agricultural survey of land in the counties. This work has been completed, and the preliminary steps are already well advanced in some districts for ploughing in accordance with the recommendations of the experts.

The spirit in which, generally speaking, the Committees are carrying out their duties is illustrated by an incident in East Anglia. Complaint was made that a Committee were pushing forward with work without first submitting details to the Board of Agriculture; and in effect a reply was made that while the particulars would be supplied in due course, the Committee were an executive body, they were practical men conversant with local conditions, and they would not be hampered by red-tape procedure.

There is a strong desire in responsible quarters that the Board of Agriculture should state definitely at the earliest possible moment, for the information of farmers, what crops should be grown next year and thereafter, having regard to national requirements. Only by means of this information issued officially can plans be made with confidence for future cultivation. The value of time and forethought in farming was never more fully recognized than now in view of labor conditions. It has always to be borne in mind that agriculture more than any other industry is subject to rigid limitations, not the least imperative being those imposed by conditions of soil and climate. Every farm, and indeed almost every field on a farm, demands special treatment; and success depends largely on the ability to look well ahead and make arrangements to suit the circumstances in each case.

Next Year's Program.

A letter of great importance with regard to agricultural development in relation to the food supply of the country has been sent by the Board of Agriculture to the newly constituted County War Agricultural Committees in England and Wales, indicating the Government's requirements for increased cultivation for the harvest of 1918. The work to be done, it is stated, will demand far greater exertions from the Committees and from farmers generally than anything attempted hitherto. As the task of breaking up grass to the extent of three million acres (the total mentioned by the Prime Minister as comprising the Government land program for next year) will need additional labor, horses and machinery, an undertaking is given by the Board that due attention will be paid to this subject, and also that adequate quantities of seed will be secured. The Committees are urged to bear in mind that their object should be not merely the ploughing up of a given number of acres, but to aim at producing food in such quantities that the nation will be independent of imported supplies. For this purpose the land to be ploughed "must be such that it will produce at least average crops of corn and potatoes." On this point the Board of Agriculture states:

"It will be necessary to plough up some of the good grass land. This country possesses in the good grass land the only reserve of fertility in Europe, and in the present crisis we must make use of it to produce the food which the nation needs. It will be necessary to retain sufficient grass to preserve the dairy stock, since the supply of milk must be maintained to the full, but in this connection every effort should be made to extend the system of arable dairying. The case for a great increase of arable cultivation is overwhelming from all points of view, and . . . it is the duty of the members of the Committee and all the leading agriculturists in the counties to set the example in this matter. It is the earnest desire of the Government that the Agricultural Revolution which is necessary should be a peaceful one. But Committees have been invested with powers to enforce the task which is placed upon them, and in the last resort they must not hesitate to use those powers whenever necessary."

What Yorkshire is Doing.

Yorkshire landowners and farmers, convinced that it is a case of needs must when the possibility of food shortage drives, have set to work with truly characteristic zeal to put the plough into several hundred thousand acres of grass and derelict land. The three County Councils have talked over the sweeping project by which 3,000,000 acres with the assistance of 5,000 motor tractors and ploughs, are to be added to the corn-growing area of England, and have resolved, regardless of existing and future difficulties, to obey a request which is really a mandate from the nation. The West Riding's share of the work of conversion is 101,000 acres; that of the North Riding is 91,561 acres; and that of the East Riding will probably be as large as that of either



The Fathers of Confederation—Canada was 50 years old July 1.

Hewitt Barnard W. A. Henry E. Palmer Ambrose Shea F. B. T. Carter John A. Macdonald Geo. E. Cartier Thos. H. Haviland Peter Mitchell R. B. Dickie W. H. Pope J. M. Johnston
W. H. Steeves Charles Fisher J. C. Chapais E. B. Chandler Adams G. Archibald E. P. Tache Alex. T. Galt J. Cockburn J. H. Gray A. A. McDonald
Edward Whelan Col. John Hamilton Gray Geo. Coles Alexander Campbell Hector Langevin Geo. Brown Oliver Mowat Charles Tupper Wm. McDougall J. McCully Thos. D'Arcy McGee