

alfa—and this will apply equally well to the clovers—better systems of crop rotations can be organized, and the farm income can be made somewhat more regular. Moreover, the production of forage crops is directly related to a better seasonal distribution of farm labor.

PLACE IN ROTATION

The rotation that includes alfalfa must of necessity be a long one, since alfalfa does not produce its maximum yields until the third or fourth year. Most farmers do not need a large acreage of this fodder, so that it cannot be introduced into the rotation the same as the other crops. This being the case, one of the best plans for laying out a rotation is to have one field in alfalfa while the other crops rotate on the other fields. When these crops have made one complete circle, the alfalfa field to be broken up and another field put down to alfalfa.

A good mixed farmer's rotation is:—

- 1st Field—Summerfallow, Corn and Roots.
- 2nd " " Wheat.
- 3rd " " Wheat
- 4th " " Oats and Barley seeded with Timothy and Red Clover.
- 5th " " Hay.
- 6th " " Pasture.
- 7th " " Alfalfa.

At the end of six years the crops on the first six fields will have made a complete circle, the alfalfa field is then broken up, and another field put down to alfalfa.

CHARACTER OF THE SOIL

Alfalfa requires a deep mellow soil if maximum crops are to be harvested. The alluvial river bottom lands of this continent provide an ideal home for this deep-rooted legume; large yields are invariably obtained on these areas. The crop can be grown on all types of soil, from the heavy clays to the coarser grained sandy soils; and it may even be cultivated on gravelly soil, provided the subsoil furnishes a suitable reservoir for moisture, thus affording a complete and continuous supply for the crop. While a loose open soil is not the best type for alfalfa, the other extreme, an impervious subsoil, is sometimes a controlling factor, and root development may be interfered with materially. A friable soil makes the best home for alfalfa.

DRAINAGE

Alfalfa has a long tap root and the plant can come to full development only in those soils which permit free and rapid growth in so far as the root system is concerned. If, however, water stands on the surface of the land, or comes within fifteen or eighteen inches of the plowed soil, it is safe to predict that the roots will be stunted; the crop yields will be comparatively small; and the plants will not survive their full number of years. The old saying that alfalfa will not stand "wet feet" is now a recognized fact. It is a mistake, therefore, to sow alfalfa seed on poorly drained land. The money invested in seed and the time spent in getting the field in readiness will be a total loss.