

and will insure his getting much bigger returns than where a longer rotation is followed and a relatively smaller proportion of the arable land given over to the production of forage crops such as corn, roots and clover hay. On the Experiments' Farm, Ottawa, this rotation has proven to be by much the most profitable of all rotations tried.

*Rotation 'D,'* a four year rotation, including:—

First year—hoed crop; followed by second year—grain, seeded down with, say, 10 lbs. red clover, 2 lbs. alsike, 12 lbs. timothy per acre. Third year—hay or pasture. Fourth year—hay or pasture.

This rotation recommends itself for use on farms where most of the land is arable and where provision has to be made for pasturing, to some extent at least, on arable land. It has the advantage of sod being turned down once in four years, of clover occupying the land, to a greater or lesser extent, three years out of four, and of being under pasture to some extent the third or fourth year. This rotation would probably suit a light, sandy soil, even better than rotation 'C', since rotation 'C' in the case of light, sandy soils would probably have a tendency to open up or loosen the soil too much.

*Rotation 'E,'* of five years' duration, as follows:—

First year—hoed crop. Second year—grain, seeded down with 10 lbs. red clover, 2 lbs. alsike and 6 lbs. timothy per acre. Third year—hay, land ploughed in fall. Fourth year—grain, seeded down with 10 lbs. red clover, 2 lbs. alsike and 6 lbs. timothy per acre. Fifth year—hay or pasture, land to be left unploughed till the following spring, manure to be applied during the winter and turned under with a shallow furrow for corn production the sixth year, or the first year of the new cycle of rotation. Such parts of the hoed crop field as it is desired to devote to roots or potatoes should be ploughed in late summer the year previous. Immediately after ploughing the land should be rolled, disc harrowed and worked down to insure rotting of the sod. Short manure or rotted manure should be applied during the fall or winter and worked in on the surface preparatory to growing roots or corn next year. This rotation does not allow for the production of timothy hay, but provides a very large supply of clover hay suitable for most live stock, and is certain to give large grain crops, both after corn and after the clover. The crop coming after clover is likely to be something heavier in the straw, but on a stock farm (the kind of farm for which such a rotation is fitted) an extra amount of straw is always valuable. This rotation, since it allows for growing grain on two-fifths of the whole area, may recommend itself to such farmers as desire to grow all the grain feed they require on their farms.

*Rotation 'F'* is similar to rotation 'E'. It, however, allows for the production of some timothy hay. It is as follows:—

First year—hoed crop. Second year—grain, seeded down 10 lbs. red clover, 2 lbs. alsike and 12 lbs. timothy per acre. Third year—clover hay or pasture. Fourth year—timothy hay or pasture, the land under timothy hay or in pasture to be ploughed in August with a shallow furrow, rolled, disced and harrowed to insure breaking down or rotting of the sod, and harrowed at intervals during the fall to destroy weeds and get the soil into good working condition. In early October this land should be ploughed again with a slightly deeper furrow, or else ridged up with a double mouldboard plough and left for the winter.