

## ROTATION "B" (TWO YEARS' DURATION).

*First year*—Summer-fallow.*Second year*—Wheat.

This rotation is under trial at our Lethbridge Experimental Station only. Just half the land under experiment is in crop each year and as this must be debited with the cost of operating for two years, the net profits are likely to be low.

## ROTATION "C" (THREE YEARS' DURATION).

*First year*—Summer-fallow.*Second year*—Wheat.*Third year*—Wheat or coarse grain.

This is the rotation more commonly followed throughout our dry-farming areas. While it is likely to prove satisfactory for a longer or shorter time, depending on the natural fertility of the soil at the outset, it cannot be given an unqualified recommendation, since soil impoverishment must result from its long continued use.

## ROTATION "E" (FOUR YEARS' DURATION).

*First year*—Wheat. Plough stubble in autumn.*Second year*—Wheat. Plough stubble in autumn or spring.*Third year*—Oats.*Fourth year*—Summer-fallow.

This is a grain growing rotation, frequently used by Manitoban farmers, but which from the standpoint of the upkeep of fertility cannot be regarded as economical. In common with all rotations which include merely grain crops and fallowing, this rotation must result in soil deterioration if practiced for a number of years.

## MIXED FARMING ROTATIONS.

## ROTATION "F" (FIVE YEARS' DURATION).

*First year*—Wheat. Plough stubble in autumn.*Second year*—Wheat. Plough stubble in autumn or spring.*Third year*—Corn or roots. Apply manure preceding autumn.*Fourth year*—Oats or barley. Seed down with 3 pounds timothy, 5 pounds rye grass and 8 pounds red clover per acre.*Fifth year*—Clover hay. Plough land after hay is cut, and top work for remainder of season.

This is a mixed farming rotation suitable for Manitoban conditions, where there is a sufficiency of permanent pasture outside the rotation. Mr. McKillican, Superintendent of the Experimental Farm, Brandon, says of it:—

"This rotation is proving a decided success on the Experimental Farm. In a country where summer-fallowing is generally considered essential it demonstrates the possibility of producing a profitable crop every year. The substitutes for the summer-fallow are, first, corn or roots and secondly, clover hay. While these crops do not show in themselves any very great profit, they more than pay for the operation they involve, and for the overhead charges counted against them, and they leave the land in such a condition that the following crops of grain are more profitable than any grown in the straight grain-growing rotations."