

Second year.—Peas and oats mixed. Cut green for cattle. Seeded down with 10 pounds red clover, 2 pounds alsike, 6 pounds alfalfa and 6 pounds timothy per acre.

Third year.—Clover hay. Cut green for cattle.

This is a rotation specially designed to supply soiling crops. Two years' records only have been kept.

If a careful examination of the above rotations be made there will be noted a few desirable characteristics common to all:—

1. Grain fields are always seeded down with clover, even though it be used only as a fertilizer, as in the case of the fifth year of rotation 'A'.

2. Grass and clover seedings are heavy. Increased crops of hay and rare failures of a catch have justified them.

3. Hoed crops from a large proportion of every rotation. An attempt to farm a small area without a hoed crop was not successful. Weeds could not readily be kept in check.

4. No field is left in hay for more than two successive years. Our records show that the second crop almost always costs more per ton than the first, and that succeeding crops are very liable to be grown at a loss.

5. Barnyard manure is applied frequently, in comparatively small quantities rather than at long intervals, in large quantities.

In order that the net profits (profits after deducting cost of rent, all manual and horse labour, manure, seed, twine and use of machinery) as well as the yields of these rotations could be determined, careful records have been kept of all items chargeable against the rotations.

The season of 1913 was so extremely dry that many of our crops were grown at a loss. The returns are, therefore, very low as compared with the average returns for preceding years. A re-arrangement of the rotations was made in 1912, hence averages have been drawn for the preceding eight years only.

COSTS, RETURNS AND NET PROFITS OF ROTATIONS 'A', 'B', 'C', 'D', AND 'R'.

Rotation.	Cost to operate per acre.	Value of returns per acre.	Profit or loss per acre, 1913.	Profit, average of 8 years 1904-11.
	\$ cts.	\$ cts.	\$ cts.	\$ cts.
A (Five years' duration)	17 55	19 40	1 85	8 78
B (Five " ")	21 83	21 47	— 36	9 03
C (Four " ")	17 08	16 97	— 11	8 15
D (Three " ")	19 35	17 80	— 1 55	10 08
R (Three " ")	19 14	19 50	36*	

*Records kept for 1912-13 only.

COST OF PRODUCTION OF FIELD CROPS.

The following four-year rotation, on which have been grown corn, turnips, oats, clover hay (first year hay) and timothy hay (second year hay) has been in operation for the past ten years.

1901 year.—Hoed crop. Turnips were grown from 1904 to 1909 inclusive, and corn from 1910 to 1913 inclusive.

Second year.—Oats. Seeded down to clover and timothy.

Third year.—Clover hay (first year hay).

Fourth year.—Timothy hay (second year hay).

In this rotation, good farm practices have been followed, profitable crop production being the aim.