



STRATHOONA WHEAT FIELD.

Pointers for Beginners.

BY ANGUS MACKAY, SUPERINTENDENT INDIAN HEAD EXPERIMENTAL FARM.

SELECTION OF LAND.

In choosing a grain farm or one intended for mixed farming, it is advisable to select soil that will withstand dry weather. A clay loam, eight inches to two feet or more in depth, on top of clay subsoil, is the best for this purpose. Sandy loam, with clay subsoil, is some earlier in maturing grain, but not so sure in dry weather for crop. Sandy soil, with sandy or gravelly subsoil, should not be taken.

WATER AND BUILDING SITE.

If possible, select land with a water supply visible, or reasonably sure. When there is doubt, land with a coulee or ravine on it, in which snow water can be retained, should be chosen. Erect buildings near water supply. Face them south or east, and as soon as possible grow a wind-break of maple trees on west and north side for protection. When grain-growing is to be carried on extensively, select the open prairie, with few or no bluffs or slough holes. Seasons are too short to waste time working about such places. On large farms, buildings should be as near center as possible, to save loss of time in going to and from work.

BREAKING LAND.

Breaking the land is naturally the first matter to engage the settler's attention, after shelter has been provided for himself or family, and it is better to defer anything but mere shelter until the breaking season is over. A house can be erected at any time, but breaking must be done at the proper season to ensure good results. The best breaking season is the month of June, but May breaking also gives good returns, and the work should be commenced at the earliest possible date. After July sets in, if weather is dry, the sod will not rot, and breaking may be discontinued with advantage to both land and settler.

Breaking should be done as shallow as the land permits, $1\frac{1}{2}$ to 2 inches is best, turn furrow flat over, and if roller is available, use it to hasten the rotting process. With ordinary horses or oxen, a plow turning a 12-inch furrow should be used; with more force a 14-inch plow is preferable. A plow with breaking and stubble attachment is cheapest, and does as good work as one for each operation.

Backsetting consists of turning the sod back to its original place, and at the same time bringing up a few inches of soil to cover it. The plowing requires to be done in same direction as the breaking, and as near as possible the same sized furrow turned over.

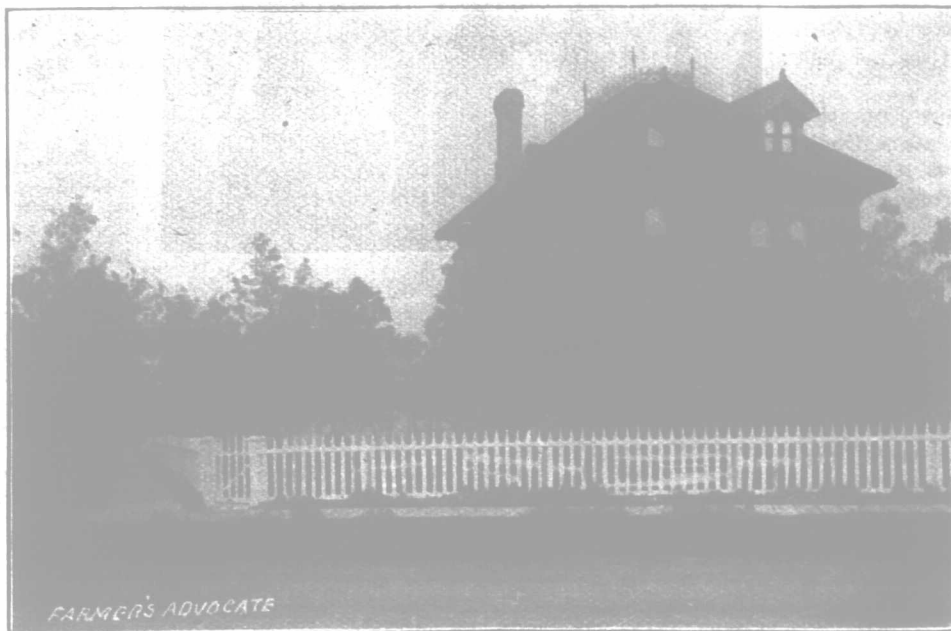
Usually six weeks is required for the sod to rot after it is broken, before it can be backset to advantage. After the backsetting is through,

the surface cannot be made too fine, and any work done on it with a disk harrow will be repaid by extra crop.

SOWING ON NEW BREAKING.

To a new settler, with perhaps a family and little means to carry him over a year, the temptation is strong to sow as much as possible the first year. There is, however, great risk in doing much in this line, and except in cases of absolute necessity, the risk should not be taken. Flax, potatoes and vegetables may succeed in ordinarily good years. A grain crop rarely pays more than the cost of seed, while it injures the land for the next year's crop, and should not be tried.

For flax, the breaking should be done $2\frac{1}{2}$ or 3 inches deep, the surface made as fine as possible, and seed sown with shoe drill at rate of 30 to 40 pounds per acre, from 15th to end of May.



RESIDENCE OF W. T. STOREY, WAWANESA, MAN.

Every day after 1st June increases the risk from fall frosts.

CULTIVATION OF SOIL.

Usually, two crops can be relied upon, with little or no cultivation after the land has been broken and backset. After the two crops are taken off, the land must be fallowed every third year to ensure good returns in favorable and unfavorable seasons. Fallowing means allowing the land to remain idle, and working it during the season to conserve moisture and kill weeds. In addition to these two important points, the land can be prepared for the next crop at a time when other work is not pressing, and left in the best possible condition for early seeding, which is one of the main considerations a settler should never forget. In no part of the Territories is there time for much fall or spring plowing, even

if advisable to have the work done during these seasons. One deep plowing before the end of June, with shallow surface cultivation to kill weeds as they germinate, has given the best results in all kinds of seasons, and can be recommended. Fall plowing is not advisable, unless the soil is moist, which it seldom is. Spring plowing for oats or barley can be done with a fair measure of success. Stubble, if possible, should be burnt before plowing. If heavy, when turned under, the soil will be kept loose, and dry out when rains are over.

SEEDING AND VARIETIES OF GRAIN TO SOW.

Seeding is one of the most important works in farming operations, and unless done at the proper season had better be left undone. No matter how early (provided it is not before the 1st April) or late the spring may be, wheat sowing should commence as soon as frost is out sufficiently for drills to work, and all finished within three weeks from the start. The second week's seeding gives the best returns usually, and is as safe as the first. After the third week no wheat crop is safe. Oats and barley are best sown early in May, and not later than the 15th of that month. Grain of all sorts should be sown by drill, and put down from $2\frac{1}{2}$ to 3 inches deep. Broadcast seeding is not advisable under any circumstances. Wheat requires $1\frac{1}{2}$ to $1\frac{3}{4}$ bushels seed per acre; oats 2 to $2\frac{1}{2}$ bushels; and barley 2 bushels. Red Fife wheat is the best variety to sow in Assiniboia and in the southern and more open part of Saskatchewan. Earlier sorts, such as Preston, Stanley, Percy, Dawn, etc., are safer for Alberta. Banner oats have given best returns in Assiniboia, while for Alberta and Saskatchewan, Wide-awake and Improved Ligowo are better suited. Six-rowed barley matures six to ten days earlier than two-rowed, and except on fallow land is more reliable. Mensury is the best six-rowed, and Canadian Thorpe the best two-rowed. Both are stiff in the straw, and on good fallows produce heavy crops. As stated before, two crops are reasonably sure after backsetting, with little or no cultivation after the backsetting is completed. The same or better results are obtained after the land is fallowed. In all districts where fallows are made, the first crop is usually heavy. When harvested, the stubble of this crop is left as high as possible. In the following spring this stubble is burnt on a warm, windy day, and the second crop sown without cultivation. After seeding a good harrowing is advisable.

STOCK.

It need not be said that mixed farming should be carried on by new as well as by old settlers. In many districts, however, this is found at present difficult, if not impracticable, from insuf-