same, some of the young plants had evidently been killed by the heavy shade given by the vigorous growing crops of oats. This result was still more marked in the plots sown with pease, where the clover was very uneven and patchy, and more so in the plot of Prussian Blue, because that variety produces a longer and stronger growing vine than the Daniel O'Rourke.

CONCLUSIONS.

The evidence thus far afforded by these clover tests seems to show that the sowing of clover with grain does not materially affect the crop of grain. That in the climate of Ottawa the best variety of clover to sow for ploughing under is the Mammoth Red, and that 10 lbs. of seed per acre is sufficient to produce a heavy mat of growth by the first week in October, when, if desired, it can be ploughed under to assist in fertilizing the soil for the next crop.

ACRE PLOTS OF ODESSA BARLEY SOWN WITH ALFALFA AND BROMUS INERMIS.

These were on sandy loam of fair quality, which had received a dressing of barn-yard manure, about 12 tons per acre, in the spring of 1896, this was ploughed under about 6 inches deep, immediately after spreading, the land was then harrowed twice with the smoothing harrow before sowing. The barley was sown on both of these acre plots in the proportion of $1\frac{3}{4}$ bushels per acre.

One acre Odessa barley with 14 lbs. Alfalfa per acre, sown 5th May, came up 11th May, and was ripe 27th July. The time to ripen was 98 days, yield per acre 44 bushels 40 lbs. weight per bushel $50\frac{1}{2}$ lbs. By 23rd July the Alfalfa had made a medium and fairly even growth from 6 to 8 inches high, with many withered leaves, as if the plants had suffered from drought. On 14th October the Alfalfa had reached a height of 12 to 14 inches, the growth was medium and even, thick enough to make a good meadow, but not thick enough yet to plough under to advantage.

One acre Odessa barley, with 18 lbs. *Bromus inermis* (Awnless Brome grass) per acre, sown 5th May, came up 11th May, and was ripe 27th July. The time to mature was 98 days. Yield per acre 47 bushels 26 lbs., weight per bushel $50\frac{1}{4}$ lbs.

On 23rd July the Brome grass was well up and the growth fairly even. By 14th October this grass was from 2 to 3 inches high, and the growth as to vigour was medium and even. Although at this time it seemed to be somewhat thin on the ground, the rapid root growth for which this grass is noted, will no doubt soon produce a vigorous mat of foliage.

EXPERIMENTS WITH FLAX.

These experiments with flax were planned with several objects in view, namely to ascertain the quantity of flax fibre which could be produced by growing the plant in the different climates of the Dominion which prevail where the several experimental farms are located, and the quantity which could be obtained per acre when the seed was sown thinly, 40 lbs. per acre, or more thickly with 80 lbs. per acre. Also the best time for sowing in these several localities and the yield of seed per acre in each case.

A sufficient quantity of seed of the very best sort—grown one year in this country after importation from Russia—was obtained from J. Livingston, Esq., M.P., of Baden, Ont., a gentleman largely interested in the flax industry in Canada and each farm was supplied from this source. Instructions were sent with the seed to select enough land as uniform in character as possible, to provide for eight $\frac{1}{10}$th acre plots. Two of these plots were to be sown early in the season, and two on the same day each week following for four sowings, thus making the sowing period cover three weeks. The quantity of seed to be sown on one set of these plots was 40 lbs. per acre and on the other 80 lbs. per acre. Directions were also given that when the flax had reached that degree of maturity that about one third of the seed was ripe the flax on one half of each plot was to be pulled, and tied in bundles and when cured in the field the weight of straw