

1st. The drained land comes into condition for working a week or ten days earlier in the Spring than other lands.

2nd. The growth of the crops is quickened all through the summer by an increase of several degrees in the temperature of the soil. And,

3rdly. The injurious effects of frost are kept off several days later in the Fall.

In Lower Canada there is very little progress in this important branch of agriculture. Only seven report that a little drainage is done; all the rest report that none is done. Its value is evidently very little understood. If premiums were offered by Societies for the greatest extent of underdraining, the benefit would soon be manifest, and the present averages of grain crops greatly increased.

As to the proportion which Winter Wheat bears to Spring Wheat, 31 Returns state that the growth of Spring Wheat greatly predominates, being double that of Winter Wheat; the whole crop consisting of two-thirds of Spring to one-third of Winter Wheat. Thirteen state that the growth of both is about equal,—and fifteen state that the growth of Winter Wheat predominates over that of Spring, to the extent of one-third. From comparing the returns it may be estimated that the number of acres under Wheat, is about one-third of Winter Wheat and two-thirds of Spring. Five years ago there was not one acre of Spring Wheat in Upper Canada for every ten of Winter Wheat. This certainly is an extraordinary change, brought about chiefly by the fearful invasions of the Wheat Midge, but will probably be temporary, and will continue only until draining and high cultivation shall have rendered the insect innocuous here, as it has been already rendered in Great Britain by what is called "high farming." The general average of the Wheat crop in Great Britain is 28 bushels: (three-quarters and a half,) and the average weight 60 lbs per bushel. There seems no good reason why the average of Upper Canada should not in a few years equal that of Great Britain, by attention to drainage and high cultivation. Soil and climate are naturally well adapted for the growth of Wheat.

Of the 30 Returns received from Lower Canada, there are only four which report any winter wheat grown, and they state the average to be 18, 15, 20, 15,—equal to 17 bushels per acre. The County of Laval gives 18; County of Ottawa 15—and two from Pontiac give 20 and 15.

Twenty-three report the growth of some Spring Wheat—one from Terrebonne states

the average to be about 20 bushels; one from Pontiac, and one from Megantic give 18; one from Grantham 17; one from Leeds 16½; three from Pontiac and Lotbinière 15; one from Megantic 14; one from Ottawa 13; three from Bellechasse, Bagot and Lotbinière give 11: one from Chicoutimi and Montmagne give 11; and six others state the average to be 9 bushels. The total average of Spring Wheat in Lower Canada, is 13 bushels per acre.

Ten of the returns state that very considerable injury has been done to Spring Wheat by the wheat midge:—Chicoutimi, Iberville, Bagot, Joliette, and Timiscouata, report from 25 to 50 per cent.; seventeen report that the damage done has been very little, if any, this year. The remedy suggested is, to sow very early or very late, and by one to run a rope steeped with Turpentine over the heads of the Wheat when in blossom. The Black Sea Wheat is the most recommended. The Fife is mentioned only by five parties in Lower Canada, although universally esteemed in Upper Canada.

OATS.

The total average of Oats in *Upper Canada*, is 34½ bushels per acre.

Two Counties report 50 bushels per acre.

Three " " 45 " "

Nineteen " " 40 " "

Thirteen " " 35 " "

Twenty-two " " 30 " "

Seven " " 25 " "

Two " " 20 " "

Simcoe, Ontario, Kent, and Wentworth, give the highest returns, Lanark and Renfrew, the lowest; the common Black Oats are the most recommended; the average of 1858 was 32 bushels per acre, so that there is an improvement of about 8 per cent. on the crop of last year.

Considering that the statute bushel of Oats here is only 34 lb., and that the average of Great Britain is 60 bushels per acre, of 40 lb. per bushel, there is great room for improvement in the cultivation of this crop. There does not appear anything in the soil or climate of Upper Canada detrimental to the growth of this grain, and it may be inferred that the difficulty arises from inferior cultivation. The importation of new varieties of seed has taken place to a considerable extent, and it is to be hoped that the improvement will continue progressing, till we approximate somewhat nearer to British averages.

In Lower Canada the Returns show an average of 22½ bushels per acre. Megantic returns 30, and Pontiac 26 bushels.