

dry. Land should never be cultivated, and, if possible, much less sown, in a cold, wet state. In such conditions, much of the seed is likely to perish in the act of germination, and what plants survive can seldom come to a healthful maturity. It is unwise, therefore, to adopt a precise and rigid rule for the time of sowing; an operation that must be varied to suit the differences of soils and seasons.

Preparations for sowing spring wheat must be proceeded with, and the land brought into a clean, friable state, as much of the success attending wheat culture depends upon the manner in which these preliminary operations are performed. There can be no doubt that many of the disasters to which this crop has of late years been so peculiarly liable, arise from, or at least are greatly increased by, the slovenly and imperfect way in which the soil is prepared.—Want of drainage and manure, and the too frequent recurrence of the same crop, with imperfect tillage, and want of care in selecting, cleaning, and changing seed, are unquestionably the chief causes of the failure of wheat, now so extensively and disastrously experienced. In changing seed it is of importance to take from an inferior soil and climate to a superior—from sand to a limestone, and from the shallower soils of the latter to the better classes of the former. In the Western States, grain grown on the sandy plains, or “oak openings,” answers admirably, as a general thing, when sown on rich limestone prairie soils, which often constitute extensive areas.

It would no doubt be highly advantageous to procure a much greater change of seed-wheat than is commonly done. The “Black Sea” variety has been for some time deteriorating, and the same remark applies to the “Club,” which deservedly obtained a high celebrity; but the “Pife” seems now to be the favorite in Canada, and last year, from the fall returns obtained by the Bureau of Agriculture, this variety generally escaped the rust, which was extensively destructive of other sorts.

The preceding remarks will more or less apply to oats and barley, both of which might be materially improved by proper attention to their culture, in quantity and quality. The latter should not be sown till all risks of severe night frosts are at an end; as young barley is particularly tender, and when once injured in the early stages of its growth, never wholly recovers.

The summers of Upper Canada are generally too dry for maturing heavy oats, although we have now and then seen very fine specimens grown on deep, humid soils, in a season more than usually moist and cloudy. With regard to heat and drought, wheat and oats have what may almost be termed opposite habits.—Hence the peculiar adaptation of the climate of this portion of the American continent to the production of the former, while the more humid Eastern Provinces on the sea-board yield in a superior degree the latter. The “Tartarian Oat”—either black or white—seems to be the best adapted to this section of Canada, particularly when *quantity* is considered. In quality, however, the grains are generally inferior to some other sorts.

As soon as the frost is out and the ground dry and consolidated, every effort should be made to prepare the land intended for potatoes, turnips, and other root-crops, in the most perfect manner. When farmyard manure is applied broadcast, it should be divided and mixed up with the soil as thoroughly as possible, and no pains or expense spared to obtain a deep and fine tilth, upon which, and the subsequent cultivation with the horse-hoes, these crops essentially depend.