

AGRICULTURAL.

WHEAT.

[We recommend to the attention of the practical farmer the following article, from "*The Complete Farmer*." The culture of winter wheat, if introduced into Nova Scotia, would lessen materially the hurry which now necessarily attends the Spring work.]

To raise good wheat is considered, both in America and Europe, as an object of prime consequence to the cultivator; and agricultural writers have of course been very voluminous on the subject. We shall select and condense some of their remarks, which appear to us of the greatest importance, and add what our own observation and experience has suggested.

Wheat is thought to be the most useful of the farinaceous plants; and as the bounty of Providence has generally decreed that those things which are most useful shall be most common, wheat accordingly will grow in almost any part of the globe. It thrives not only in temperate, but in very hot and in very cold regions: in Africa and Siberia, as in the United States and Great Britain. It requires a good loamy soil, not too light nor too heavy. The *Memoirs of the New York Board of Agriculture*, vol. ii. p. 23, state that 'wheat grows best on land which contains just as much clay as can be combined with it without subjecting the wheat to be frozen out.' And the author of that article, Mr Amos Eaton, observes, 'Since it is the clay which absorbs and retains most of the water injurious in wheat soils, I adopted a rule for the consideration of farmers, founded on that principal, and confirmed by all the observations I have been enabled to make. *Rule*.—Wash a little of the soil in a tumbler of water, and observe the time required for it to become clear. If the time required exceeds three hours, it may be considered as liable to be injured by frost.' W. Van Dusen, a farmer of Rensselaer county, New York, says 'that if wheat be sowed the last week in August, on clay soil, it will generally resist the effect of frost in the winter, and of insects in the spring.' 'A clay soil,' according to the same work, 'having absorbed a large proportion of water, becomes cellular as the water freezes, or rises up in various protuberances, so that the roots of the wheat become disengaged from their hold in the soil. It is very manifest that if wheat is sowed so early that each plant may have time to extend its roots into the soil, its chance for retaining its hold will be better.' We believe that not only clay, but lime chalk, marl, or other calcareous substance, is necessary to bring wheat to perfection, and the grounds to our belief we shall exhibit hereafter.

The *Complete Farmer* says, that 'the best time for sowing wheat is about the beginning of September. But if the earth be very dry, it had better be deferred till some showers have moistened the soil.' Mortimer says he has known wheat to be so mustered and spoiled by laying long in the ground before rain came, that it never came up at all; to which he adds, 'that he has seen very good crops of wheat from seed sown in July.' We should apprehend however, that it would be necessary to feed wheat sown so early, in order to prevent its going to seed the first year, or getting too far advanced in its growth to resist the frost of the succeeding winter. Sowing in dry ground is generally recommended for seeds; but wheat being liable to be smutty, is commonly prepared by steeping in brine or lime, and in consequence of the steep vegetation commences; and if the seed in this state is placed in earth which is and continues for any time dry, vegetation is checked by the drought which kills or greatly injures the seed.

Early sowing requires less seed than late, because the plants have more time, and are more apt to spread and throw out a good number of stalks. More seed is required for poor than for rich lands, and rich land early sowed requires the least of any. Bordley's Husbandry says, 'The climate and soil of America may be believed to differ greatly from those of England respecting the growth of some particular plants. Wheat sown there two to three bushels on an acre yields great crops. Two bushels an acre sown in Maryland or Pennsylvania would yield straw without grain. In Maryland three pecks are commonly sown. I never had better crops than from half a bushel of seed wheat to an acre, in a few instances. In these instances the ground was perfectly clean and fine, after many ploughings or horse-hoings of maize, [Indian corn,] on which the wheat was sown in September, whilst the maize was ripening. It was a clay loam highly pulverized. But because of the loss of plants at other times, I preferred to sow three pecks to an acre.' 'Grain which is thin sown,' says the *Complete Farmer*, 'is less apt to lodge. Every one must have observed that in places where foot-paths are made through wheat fields, by the side of the paths, where the corn is thin, and has been trodden down in winter and spring, the plants have stood erect, when most of corn in the same field has been laid flat on the ground; an advantage proceeding from the circumstance of the stalks having more room.'

The Farmer's Assistant asserts, that 'the time for sowing wheat probably depends much on previous habit. Thus if it were sown a number of successive years by the middle of August, and then the time of sowing were changed at once to October, the crop would probably be much lighter on that account; yet, where wheat has become habituated to be sown late, it will do tolerably well. The later it is sown, however, the more seed is requisite. When early sown, a bushel to the acre is believed to be sufficient; but when sown later, a bushel and a half, or more, may be necessary.' The estimate of seed, however, should be formed not so much from the capacity of any particular measure, as from the number of grains which that measure contains. The larger and fuller the seed is, the greater quantity by measure will be required; the smaller, the less quantity. Much therefore, must be left to the discretion of the farmer, who must take into consideration the time of sowing, the quality and preparation of the soil, as well as the plumpness or the shrivelled state of the seed wheat.

If naked summer fallows are used at all, they may as well be made preparatory to a crop of wheat. It may sometimes be expedient to suspend, for one season, the raising of the crops of any sort on land which is exhausted or greatly infested with weeds; and during the summer and autumn plough and harrow it several times, and thus thoroughly subdue it. When such a process is adopted, wheat is generally the succeeding crop. The custom of naked fallowing, however, is not much approved of in modern husbandry, and that mode of preparing for wheat is rarely adopted by scientific cultivators. Sir John Sinclair says, 'The raising clean, smothering, green crops, and feeding stock with them upon the land, is not only much more profitable, as far as relates to the value of the crop substituted in lieu of a fallow, but is also a more effectual method of procuring large crops of wheat, or any other crop, which may succeed the green crop.' There is a disadvantage sometimes attending fallows, which we apprehend may be more detrimental in our climate than in that of Great Britain. Land which is kept in a light and pulverized state is liable to

be washed away by violent rains, and the showers of our summer season are usually more plentiful, and fall with more impetuosity than those of England, although the mean moisture is less, and there is less run falls in the course of a year on this than the other side of the Atlantic.

In modern tillage, wheat more usually follows clover than any other crop; and Bordley's Husbandry says, 'clover is the best preparative for a crop of wheat.' In such a case, English farmers, and indeed all others who work it right give but one ploughing, and harrow in the seed by passing the harrow twice in a place the same way with the furrows. Mr Bordley directs that the operations of ploughing, harrowing, and sowing, should immediately follow each other. Mr Macro, an eminent English farmer, says, 'From upwards of twenty years' experience I am of opinion that the best way of sowing clover lands with wheat, is to plough the land ten or fourteen days before you sow it, that the land may have time to get dry, and after rain to make it dress well. I am at a loss to account for the wheat thriving better on lands which have been ploughed some time, than it does on fresh ploughed lands which dress as well or better; but I have often tried both ways on the same lands, and always found the former answer best.' Mr Bordley, in attempting to account for this effect, says, 'I conjecture that the clover plants being buried and the wheat sown at the same time, they both ferment and run into heat in the same period; the germ then shoots, and the root is extremely delicate and tender for some days; during which, the buried herbage obtains its highest degree of heat; which, added to the internal heat of the germ, may, though only slightly, check and a little injure the delicate shoots of the wheat. In sprouting barely for making malt, a little excess of heat in the bed checks, and a little more totally stops the sprouting or growth of the roots. Both modes give crops superior to what are produced on fallow; farmers may try both methods for determining which to prefer; that is, as well immediate sowing, on ploughing in the clover, as the method of sowing not till ten or fourteen days after having ploughed in the clover suppose a half each way.

To be continued.

We recommend a trial of the following experiment—at least on a small scale:—

REMEDY FOR THE TAINT IN THE POTATOE CROP.—An intelligent individual conversant with farming operations, informs us, that the progress of pickling the seed potatoes with lime, has, for several years past, secured him plentiful and wholesome crops of potatoes. The best proof of the utility of the simple process is, that in the same field, the plants that had been pickled had yielded excellent crops, while those that had not been so prepared failed.—The lime is supposed to destroy the grub. The advantage of this cannot be too greatly made known to the public, especially as it seems to be apprehended that, in many places, there will again be a decided failure in this year's crop.

ON THE CULTURE OF PEAS.—A writer in the *Genessee Farmer*, observes, that the custom used to be among farmers to sow three or four bushels of peas to the acre, and they usually obtained about fifteen bushels; that some years ago he went from home, directing his farmer to sow two acres of peas just as he sowed wheat, having reference to the quantity, sowed only one and a quarter bushels to the acre. On returning he found his peas very thin, and let it go for an experiment, and it proved to be a good one. He has since followed out the experiment, and generally gets