

which was pickled and not limed, was nearly free from smut; but that which was unpickled had smutty ears in abundance.

The two following experiments were made by Mr. BLAKIE, a Derbyshire farmer:—The first was on a peck of very smutty wheat, one-half of which was sown in the state in which it was bought, and the other half washed as clean as possible in three waters, and then steeped during two hours in brine, strong enough to carry a new laid egg, and dashed over with lime:—the result was, that two thirds of the wheat grown from the unwashed seed was smutty; while that produced by the pickled and limed seed was a full crop, without a single ear of smut. The second was made upon some very fine wheat perfectly free from smut. A quart of this was washed in three waters in order to secure its thorough cleanliness; it was then put for two days into a bag, in which there was some of the black dust of smutty grain; and the result was, that a large proportion of the wheat thus sown was smutty, while out of twenty acres sown with the same grain—not inoculated—not one smutty ear was found.

It would be superfluous to multiply experiments, as sufficient have been adduced to convince any thinking man, that the evil can be prevented, if only the proper means be put into practice. While upon this subject, it might not be amiss however to mention, that with this as with the various diseases subject to the human body, various cures are recommended, scarcely two of which agree, at the same time, nearly all prove more or less successful.—The most common of these are, *stale urine*, *blue vitriol*, and *sulphate of copper*, but in our opinion none is so cheap and unodorous as brine, as above described, and if it be used as recommended, we will go bail for the consequence.

SPECIES OF WHEAT.

In selecting a variety of wheat, the adaptation of such variety to the peculiar soil which it is intended to be applied, is of more consequence than is generally supposed—the different species of wheat which are the most beneficial to the farmer, must therefore depend upon the nature of the soil upon which it can be best produced. To point out such marked distinctions as would make each variety accurately known, by merely mentioning their names would be a hopeless task—as they are known only by their provincial names in this country, and what would be called Dantzic wheat in the Home District would be most likely called “English white” in the London District—and it is also a well known fact that the various species of wheat degenerate and alter in their character, and in many cases the shades of difference are so small that one might easily be mistaken for another. When a farmer discovers a good variety, and one which is well adapted to the soil he cultivates, he should consider that he had found a *prize*, and should endeavour to keep it pure, and change it occasionally on soils suited for its growth. A species of wheat has been cultivated for many years in the neighbourhood of New-Market, which is the most productive kind in the country, if it be fairly dealt with. We have frequently known fields to yield from 40 to 45 bushels per acre, sown with this variety, and on average of seasons, the farmers who sow it, calculate on at least 30 bushels per acre. The berry is remarkably long and large, and weighs 64 lbs to the bushel when well

filled. We conceive that we would be performing an act of supereogation were we to dictate the sorts of seed that each Canadian farmer should sow,—and we would merely say that the time that may be spent in selecting good seed, generally remunerates for both trouble and expense, and is a sure indication that the individual who practices it, prides himself in his business, and in nine cases out of ten the results are manifest, both in garner and purse.

GENERAL REMARKS ON CULTIVATION.

The soil best adapted for wheat is a clay, mixed with about 15 per cent of lime, and a sufficient portion of *humus* or vegetable matter to prevent it from becoming too much adhesive or surface bound; and a sandy loam resting upon a stratum of calcareous clay. The latter is the most easily cultivated, and in our humble opinion is decidedly preferable to any other soils in the province for general cultivation. The “sandy plains” in the Talbot, Gore, and parts of the Brock Districts, are of this description of soils, and the day is not far distant when these sections of the Province will be considered the most valuable lands in the country, for the purpose of growing clover and “white crops.” Persons that are not judges of land, might mistake the soils that partake of a drifting sand for its subsoil, for these soils, the surface soil of each being very similar.

Were we a farmer on the Brantford Plains, or on the localities mentioned above, the system of husbandry which we would unquestionably practice, would be alternate crops of wheat, clover, wheat, spring crops, summer fallow, wheat, clover, wheat.—The whole of the manure made on the farm would be converted into economical compost heaps and spread over the clover grounds with a liberal dressing of Gypsum. The first crop of clover would be mown for hay, and the second ploughed in with a single, though deep and well proportioned furrow for wheat.

But few farmers in Canada really understand, the system of farming, which would enable them to obtain from 30 to 40 bushels of fall wheat per acre with only a single ploughing, and without being under the necessity of making naked summer fallows—while we attempt to give them instructions on so desirable a desideratum, we wish to be well understood on one point, viz,—that the system can only be profitably brought into use, when the land is in a high state of cultivation, and perfectly free from weeds and wild grasses. To accomplish this, good ploughing is essential and also a thorough knowledge of the nature of the soils, and a certain mode of depositing the seed. As we have adverted elsewhere to the two former, we will for the present endeavour to adduce a few practical and interesting remarks on the latter, and at some future time take up the whole subject of cultivating land for wheat, and give our readers a short essay on “wheat growing.”—Indeed the subject is so prolific with interest to us, that we have at least, a dozen interesting experiments to make, all of which would be a means of advancing the progress of knowledge, on this branch of agriculture.

Most of our readers must be aware by this time, that we are advocates of drilling, or depositing the seeds in rows, so that the rays of the sun and air will have an opportunity to strike at the bottom of the plants, by which means early maturity, less liability to disease, and a less lux-

uriant growth of straw, will be greatly promoted; and also an opportunity will be given to horse-hoe the crop. On very sandy light lands, drilling would be injurious, for in that case the whole surface of the ground should be covered with a thick covering of the plant to prevent injury from drought.

Drilling machines being but little known in Canada, other means must be adopted to sow the seed in rows. The mode of ribbing on naked summer fallows, and pulverised soils, being explained on another page of this sheet, we shall only give the details of another system, which is admirably calculated to bring about the same end, but which requires a very clever workman to execute it in a creditable style. This system consists in ploughing under a clover ley. If the grass on the sward be heavy, it should be harrowed in proper breadths for the ridges of wheat, by this means the plough will not be obstructed in its course. The best mode of performing the operation is with the trench plough, an implement as yet but little known in this country; the furrows being formed narrow, and turned well over, as the complete inversion of the sod is essential to the perfections of the system. The “press” or “Furrow Slice Compressor” has then to be drawn over the land, lengthwise of the furrows, which will leave them flat or oval in the bottom, and make them compact, regular, and in as fit a state to receive the seed as though a regular drilling machine had been used; the seed is then sown broad-cast, which falls in the bottom of these furrows, as the edge and shape of the furrow is not the least defaced, and is harrowed in lengthwise with a pair of harrows.

The plan here recommended will be fairly tested by the writer, as soon as circumstances will admit, in the mean time, the plan of sowing fall wheat on clover ley, may with advantage be experimented upon, with a reasonable prospect of success without the use of the “press,” providing the land be uncommonly clean and in good heart, and the work be performed in the style recommended above.

BOARDS OF AGRICULTURE.

In discussing the propriety of establishing a Board of Agriculture in this Province, it would be quite unnecessary to enter into the details of the requirements of such an Association, as all who have the slightest acquaintance with the subject must be aware that Agricultural improvement is all that the advocates of the measure desire to accomplish through its agency:—although the precise details may very properly be withheld until the association has been organized, as a very great difference of opinion will no doubt be entertained by the several members composing it, as regards the working of the machinery, yet it must be clear to every reflecting mind, that in order to place this *machinery* in proper working order, public opinion must be aroused to the importance of *action* on the subject.

Since the mother country has graciously consented to give us nearly the same advantages in her markets as an English county, we should have sufficient intelligence among us, to unite in our strength, and place the colony in such a position that an advantage would be derived from the change; but we are sorry to say that comparatively few of our own countrymen are public spirited enough to contribute either money or time to the important subject of agricultural improvement, nor to do anything for the