

ploughed in dry, that they would be as great a weed too. They seem to have another disadvantage, which, in the present circumstances of our labour, is not a small one. They ripen along with the wheat: and that article being now more than ever the chief object of the Farmer, it is in danger of occasioning very serious consequences as to the timely cutting of that crop. Potatoe plants are also extremely apt to shake, and seldom fail to drop in shearing. All kinds of early oats are fit only for fine land, or land in a high state of cultivation; but upon inferior land they are the best, when a bad season has thrown the seed-time too far back for common ones. Blainslie oats are our native early, and have a finer meal as well as finer straw; but they seem mostly out of favour at present. These several varieties of oats and barley afford the Farmer great advantages in securing his grass-seeds, as well as his corn crop, in certain seasons and situations.

As to spring wheat, the dwarf kind, which is known to produce short straw, is also advantageous in the above circumstances; and as it has a natural tendency to produce short straw, it ought certainly upon rich soils to be preferred in winter.

*Picking out the best heads of the most approved grains, is the best method of preserving the species from degenerating.*

—It must be evident to every one that grain has a constant tendency to degenerate. But whether its species suffers or not, it must, by a thousand circumstances, be so blended and mixed with other kinds, and oven with different grain, that it requires frequently to be renewed by picking and propagating the best heads. This is found by experience to be the surest method of preserving the grain; and so different is the produce of the earliest and most vigorous ears from that of the poor diseased ones, that it has generally obtained some name to distinguish it from that even of its own kind. A Farmer in East Lothian some years ago found, in a cold, bleak situation (Coldingham Muir), a very fine looking vigorous head of wheat—which, being ripe at a period earlier than might have been expected from its situation, he brought with him; and having repentedly sown its produce, at last furnished seed to a considerable part of that county, and even to farms in many a distant county. It is an excellent kind of wheat—being considerably earlier and more prolific than any kind we are yet acquainted with. It is known as *Munter's Wheat*.

These hints may perhaps be of some use to Farmers who are only about the beginning of their agricultural pursuits. They may cause a little reflection, and occasion rational experiments, which may confirm, in their mind, the utility of such first principles upon which they were made.—E., *Ayrshire*.

Why is Tom Thumb not the smallest General in the world? Because in India there is a General *Littler*.

*From the Scottish Farmer.*

### A KNOWLEDGE OF THE THEORY OF AGRICULTURE NECESSARY TO ITS PRACTICAL IMPROVEMENT.

The prejudices entertained against what is termed Theoretical Farming, so extremely hurtful to the advancement and interest of the art, seem to arise in a great measure from very mistaken notions respecting it. An acquaintance with the real theory of Agriculture, is the knowledge of those general and fixed principles which ought to guide its practice. These principles are the result of long and repeated experiments—the nature and utility of which have been so proved, that, when directed to their proper objects, there is every reason to expect that they will not miscarry or disappoint their reputed fitness. The principle, that cleaning foul and weedy land is an essential preparation in cultivating, and in rendering the soil fit for the reception, the health, and vigorous growth of useful plants, is as firmly established as the correctness of any mathematical axiom.

But it is not here meant that it is a simple and easy matter always to perceive the proper and applicable principle which the case occurring may require. This is the stumbling difficulty. It is but in comparatively few instances where the use and connexion of the principle and its strict subject are so evident as they are respecting cleaning, draining, and manuring land; and, in the practice of Agriculture, there are a thousand different cases where the true principle is uncertain, and therefore the rigid observance of an inapplicable rule would be injurious. The principles and rules essential to most other arts are more determinate, and may be understood and illustrated in the chamber of an ingenious individual; but the art of Husbandry is a combination of so many facts,—a system depending for its accuracy upon such an extent of observation and patient experiment—that it is almost rash to anticipate such a precise system of rules, as can either be advantageous or applicable in every case. It is not easy to point out general rules, that can embrace in their use the endless varieties of soil, the difference of climates, the changeableness of seasons, and other local and incidental circumstances.

But what has powerfully contributed to increase the difficulty, is the incautious and preposterous procedure of many who have pretended to instruct by their systems, or who have unsuccessfully acted upon them. By so doing, obstacles have been raised which have greatly checked the progress of improvement. Agriculturists have been led to conclude, that between the knowledge of the theory and of the practice of Husbandry, there is no intimate nor useful connexion; and it has become a very prevalent opinion, that every idea or rule which is suggested as fitted to give general instruc-

tion, if not consonant with previous practice, and perhaps illiberal views, is nothing better than the fancy of some whimsical individual, and only calculated to attract the notice of those who have money to throw away in experiments, or to spend in amusement. Neither the difficulty, however, arising from the nature of the subject, nor the discouraging circumstance of theorists generally failing to frame applicable systems, ought to deter Agriculturists from perfecting the art, and attempting to discover better rules. General rules, capable of being reduced to a theory, undoubtedly may be laid down, which will in ordinary cases serve the same purpose which every other theory does in relation to its own practical department. Where Farmers proceed with proper caution, in making patient and lengthened experiments, their results must declare some fact useful to the art, and give rise to rules which a man of intelligence will act upon with advantage. The principles of Husbandry will thus become more determinate; and rules thus founded on actual practice, will declare, by striking evidence, their nature and fitness. This mode of studying Agriculture is attended with a multitude of advantages. Amongst the rest, it has the salutary effect of exciting the mind to exertion, and to inquiry concerning the subjects with which it is conversant. It can need no reasoning to prove that this is an advantage—a truth universally applicable to the advancement of any branch of knowledge. To husbandry, however, it applies particularly; for since the difficulties of making use of general rules are singularly great, there is so much more need for inquiry and attention—the uncertainty how principles should be handled, and the latitude which general directions must possess in their application demand the exertion and information of a master. In so far, therefore, as Farmers are wanting in this kind of knowledge, to such an extent is their practice deficient. The circumstance of a spirit of inquiry supposes a desire to improve by experiments, their knowledge and it has been to such exertions on part of Farmers through various districts of Scotland, that their present eminence is owing.

The experience of individuals is multiplied scientifically—the known and discoveries of many are collected the use of a few—and by the daily improvements that are made, the art becomes more regular and unexcitable.

Prejudices, however, will not permit men to give up ancient and unprofitable customs. It is said, "Our forefathers knew nothing of these new schemes, yet they were as happy and as well as we would wish to be; no good is seen to come of new plans, and of led and *book-taught* Farmers," &c. Needless to take notice of such chivalrous assertions. Those who are willing to know the real state of the question, will