

them correct; perhaps they may try some experiment consistent with them, and succeed. This, then, is the foundation from which we are to expect a rational system of Agriculture, adapted to all the varieties of soil, climate, and seasons, with which it must ever be connected.

It is true that by means of great attention to, and a careful and judicious imitation of good Farmers, a man of mean talents is sometimes known to make a tolerable figure in this line. He may raise good crops; and good crops are no bad criterion of good farming. Indeed, a man, otherwise a blockhead (at least one who has no notion of first principles,) often excels those who adhere to them with scrupulous exactness; but this must be only where the knowing man wants the talent of strict application. This talent is an essential requisite for a Farmer: indeed, it is indispensable in every occupation where success is desired.

The general principles upon which the success of Agriculture depends are—

1. Without draining wet land, no improvement.
2. Unless land thus drained is properly cleaned, the object of draining is frustrated, and that in proportion as this operation is executed.
3. Manures will always fail in producing the desired effect, in proportion as draining and cleaning are neglected.
3. Early sowing always produces shorter and stiffer straw than late sowing, and that in exact proportion to the times, when not affected by extraneous circumstances.
5. The various species of seed-corn are adapted to various soils, situations, seasons, and other circumstances.
6. Picking and propagating the best heads of the most approved kinds of grain and seeds is the surest method of preserving them undegenerate.

*Draining.*—This article has been amply discussed by able hands, and Elkington's and Smith of Deanston's systems of draining are universally known. Almost every field has its own peculiar circumstances; but as it is not our design in this place to enter into the minutiae of draining, but to introduce it as a first principle in farming, we shall say no more about it.

*Without draining, no improvement.*—Without it no other operation can be effectual to the end proposed. When land is gorged with water, it cannot be cleaned. No labor is sufficient to do it, except in a very uncommon drought—in some soils, not even then; and when land is not clean, it is impossible to suppose that dung, lime, or any other kind of manure, can have its full effect. Dung will promote the natural grasses more than any kind of grain which may be sown; and these, although the land is sown with artificial grass seed, will still thrive, and render the ground completely fit for a fallow crop, or, if on stiff clays, a summer fallow immediately after dirty lea oats.

*Cleaning.*—This department requires the Farmer's constant attention, and by this alone can be rendered effectual. Early ploughing is of much importance and it is impossible to be too early at summer fallows, or in preparing the land for turnips or potatoes, when spring sowing is over. As we at present speak chiefly of land in the second stage of improvement, it must not be considered so clean, as in future it may be expected. We shall suppose the land of a free nature, but extremely dirty by means of its late moist state previous to draining. Every Farmer may plough to his own mind, according to the nature of the soil, and the grass he has to destroy; but, in general, light ploughing is sufficient to kill grass, which generally runs near the surface—and then, before the manure is applied, a strong furrow is of much use, to mix new earth with the dung. At the same time some soils will not admit of a strong furrow, unless in the spring, before the moisture is exhausted. In such situations, harrowing, rolling, and gathering grass roots frequently after every ploughing, is essentially necessary; but it is not our design to teach either ploughing or harrowing.