

THE COLONIAL FARMER,

DEVOTED TO THE AGRICULTURAL INTERESTS OF NOVA-SCOTIA, NEW-BRUNSWICK,
AND PRINCE EDWARD'S ISLAND.

Vol. 2.

HALIFAX, N. S., JULY 1, 1842.

NO. 1.



THE COLONIAL FARMER.

HALIFAX, N. S., JULY 1, 1842.

EFFECTS OF BURNING NEW CLEARED GROUND.

The common practice of burning the surface of newly cleared land is a species of running in debt, at a most usurious interest. That is accounted well burnt; that is to say, that has the surface blackened, and all the leaves and dead twigs consumed, and fails to give a large crop in proportion to the quality of the soil, and if not of extraordinary quality, it never fails to be, within a few years, mostly covered with Golden Maidenhair Moss, (Polypodium), with so little grass upon it that it is not worth fencing. The extraordinary fertility and the rapid exhaustion of burnt land has not been explained, and depend upon causes yet to be discovered. It is certain it is not the effect of the Potash, for a much greater quantity of ashes spread upon the ground will hardly produce the same fertility, and will not impoverish the soil at all. The surface of the burnt land is moist resting on the damp earth, and the fire is above. A considerable portion of the gaseous or aeriform matter produced by the fire must be condensed by the surface soil, and being cool, will operate like the worm of a still. During the combustion of vegetable matter a large quantity of pyroligneous acid is formed strongly impregnated with the bituminous empyreumatic oil. It is probably to these substances that the effect is owing; it being nearly the same that is produced by applying too much a quantity of fish, nightsoil, or salt, which will produce an abundant crop, followed by sterility for many years after. It is probable that all these substances possess the power of rendering vegetable matter soluble in either water or air, and that when so applied, a much greater quantity than the crop can consume will get loose, it is carried off by the water and the air. An avowed and dishonest tenant sometimes when his lease is nearly expired, ploughs up all the grassland and dries and burns the sward, obtaining a large crop, and nearly ruining the farm; but no farmer who understands farming ever treats his own land in this way, and the practice of burning woodland is of the same nature. Many of our meadows have been ruined by burning. Persons unacquainted with farming, like many who have settled in this province, being that a great crop of grass was procured by the burning, at the time it was cleared, have continued to burn the stubble every year, if the weather permitted, till in the course of a few years the meadow ceased to produce grass. There are certain manures which are extremely useful, but in their application the axiom of the Grecian Sage, "Not too much," should always be remembered. Lime and urine fertilize the soils of China and Flanders; the manure of fish, in Holland; lime in England and France, and sea-

weeds in many countries have been found very good manures, yet we have seen land impoverished by using too large quantities of them. The products of burning affect the soil in the same manner, and require the same cautions. The less fire the better in clearing hardwood land, and alder swamps, but if a person should wish to improve a piece of very barren land, covered with nearly a foot of turf, he need not fear that any injury will result from burning the surface thoroughly, although there is a great loss in breaking up, drying, and burning the whole of the turf. A century back, but very little of the soil of the sandy pine plains was cultivated along the valley of Connecticut River, but after that period as the better soils were taken up, some persons attempted to raise wheat on the pine plains. They girdled the trees in the winter, cutting no more down than were required to make a fence about the field. They then fenced the ground, and in the spring ploughed a strip about a rod wide, adjoining the inside of the fence. In the following month of August, the girdled trees were all dead, and the ground was burnt over, care being taken that the fire did not cross the strip that was ploughed and run into the green woods, the land was then sowed with winter wheat and generally yielded 20 bushels to the acre, of the best quality. A few more crops were taken, which rapidly diminished in produce, till the land being exhausted it was allowed to become a common, and after the lapse of a considerable number of years, was overgrown with a thicket of Shrub Oak, a bush about the size of our upland Alder; upon clearing this off, it would again give one good and two or three small crops. After this practice began to spread, it was found that in many instances the land was so barren that even the first crop did not pay the cost; and it was soon discovered that where people had been in the habit of burning their plains over in the spring every sixth or seventh year, the land was not worth cultivating, although the fires were so light that they did not injure the trees; but that all the plains which had never been burnt would give a good crop; it was also observed that when fires were allowed to run into the woods and burn off the leaves on the better soils, a considerable injury was done to the soil, which it required a number of years to recover from. If woodland is allowed to remain for one season after it is cut down exposed to the sun, the leaves will be so much decayed that it will bear sowing with grain and grass seed without burning, and will continue to produce grass worth mowing twice as long as the ground that has been well burnt.

PASTURING RICH LAND.

In Britain where enormous rents are paid for land there are large tracts highly cultivated which are occupied for pastures. Here it is generally the custom to pasture only such lands as were either never cultivated, or else worn out grounds, which have become barren for want of manure. The only rich pasture for our cattle is the aftergrass of the mowing land, into which they are rarely turned till the month of September. Most of our farmers are terrified at the idea of giving up a part of their best mowing ground for pasturing; they cannot, they say, spare the hay; but the practice in other countries seems to have proved that on some soils, the farmer who constantly pastures one-third of his best land, raises a larger crop from the remaining two-thirds than he could from the whole, when constantly occupied by a rotation of green crops, grain, and