

such a mass of green substance passes rapidly into a state of fermentation, and becomes so far decomposed as to produce the acetous fermentation; acid is formed before the crop can receive any benefit from the various fermentation. It is also claimed that the clover may be pastured off, half, or more, of the mass of herbage be converted into manure, and left upon the soil by the droppings of the stock, and this will be equivalent to any supposed loss of the clover fed off, and a saving be, so far, made of the amount of food taken from the field, and a farther saving of the labor required to turn under the full crop. On the other hand, it is maintained that the full grown clover containing the largest proportion of sugar and the largest amount of herbage, must yield the greatest amount of fertilizing matter.

While very little has been done in the way of experimenting, as compared with the great importance of the topic, it cannot be denied that the great weight of opinion favors the feeding off the crop to at least a great extent, and treading the remainder so close to the surface that the moisture will very soon induce decay.

As this method accords too very greatly with the convenience of feeding the farm stock economically, it is not likely to be soon superseded, at any rate until the contrary practice is shown to be very decidedly better. It is for wheat that its great fertilizing qualities are peculiarly valuable, and the wheat grower may have the benefit of his summer's grazing for his stock without any loss, it is maintained by practical men, of the value of fertilizing matter; and diminution of quality, which is small in any case, being more than compensated by the covering of the surface during the heats of summer, and the better condition of the fertilizing material for immediate effect on the following crop. To get the greatest benefit, it is thought desirable not to turn upon the clover any considerable number of cattle until it comes into bloom. Then they will, of course, trample down much more than they will consume. That which is thus trod down and the droppings of the cattle together, will make such a dressing of the surface in such condition as will peculiarly suit the requirements of the crop of wheat.

CLOVER SOIL.

While clover is the peculiar fertilizer of wheat, it suits, too, especially the best wheat soils. Boussingault says: "Clover delights in clayey soils; it thrives generally in good wheat lands; in light and sandy ground it gets bare and frosted." Any soil indeed, which may be considered good wheat land may be considered good for clover, but there must be present, in considerable quantities, lime and other alkalies. Even sandy lands, after being well dressed with lime, become capable of producing good crops of clover. An analysis of the ashes of clover, by Prof. Horsford, gives, of Potash, 16.101; soda, 40.712; lime, 21.914; magnesia, 8.289; showing clearly how important to its successful growth must be a full supply of alkalies. To act upon these alkalies, so that these essential ingredients may be made readily available, the presence of sulphuric acid is important, and this may be the secret of the value to the clover crop of sulphate of lime, commonly called plaster. Of all fertilizers, none equals this in its magical effect upon the growth of clover, and the marvellous improvement brought about, in some districts, by a mere sprinkling of this fertilizer, is well known. Another thing is, that sulphate of lime fixes the ammonia that it comes in contact with, the sulphuric acid being disengaged from the lime and combining with the ammonia, preventing its escape. Ashes furnish potash, and salt chlorino and soda, and therefore benefit the crop. The starch, sugar, albumen, gluten, &c., are composed of carbon, hydrogen, oxygen and nitrogen, which are supplied, for the most part, from the atmosphere. It is the capacity of the clover plant for foraging largely on the air, that constitutes its great value as a fertilizer.—*Ag. Ed. Balt. Sun.*

TILLERING OF RYE.—Mr. A. H. Maxwell, Palmer, Mass., states that he now has in his shop a stool of rye containing sixty-one stalks, all of which sprang from one kernel, the average length of which is five feet and two inches. The average number of kernels per head was sixty. This is 3,660 fold. Mr. Vanriper, Hachensack, N. J., told us that he raised a stool of rye having over seventy stalks, all of which sprang from one grain of rye. These instances show how extensively wheat and rye plants will tiller when the soil is rich and the seed deposited a good distance apart. But few plants have the habit of tillering so extensively as wheat and rye, even when a single kernel is planted in an area of ground sufficiently large to admit of tillering to its greatest extent. This habit of tillering may be advantageous when producing new varieties of grain, as the kernels can be placed far apart, and thus be made to yield more than if planted near each other.—*Rural World.*

GROWN BOXES.—The *Agricultural Gazette* says that Mr. Brown, of Wellington, by the use of five hundred dollars worth of ground bone per year, has increased his herd of cows, on a 90 acre farm, from 8, in 1851, to 30; and his sales of butter from \$350, in 1851, to \$2,355 of butter and cheese in 1857.

A FOREST ON FIRE.—An English exchange says:—A fearful disaster has overtaken Corsica. The magnificent forest of Vizzabona caught fire a week ago, and has been burning ever since. This vast forest consisting chiefly of pine trees, celebrated for their immense yield of resin, is now one vast sea of fire. Millions of valuable trees are destroyed, and as yet the efforts of the neighbouring population have been ineffectual to arrest the progress of the flames. Corsica will not recover the results of this disaster for many a long year.

DEEP PLOUGHING.—F. W. writes the *Maine Farmer* in favour of deep ploughing to secure good crops. He adds:—"Twelve years ago I sold my little farm, and the purchaser failing to pay for it, it came back into my hands some five years since. I found the buildings in a dilapidated state, the fences mostly used up for fuel, the soil much deteriorated, and the place entirely overgrown with witch grass. The man that bought it pursued the skimming method of farming, by ploughing only five or six inches deep, which rendered the soil too shallow to produce any remunerative crop without the application of much manure. The skimming manner of culture had, in fact, been in operation so long that the soil was about as incapable of producing a crop of any value as skimmed milk is of producing good butter or rich cheese." Deep ploughing was substituted for the "skimming" process, and the land is now becoming productive again.

CLOVER ON RYE GRASS PASTURE.—An Ayrshire farmer gives his mode of curing hay as follow in the *North British Agriculturist*:—"Cut the grass only on a dry day, and see that the mowers lay it well for being lifted straight, on the following day, if the drouth has been very good or if not, then as soon as the swathes are dried on the upper side, lift the hay in straight handfuls, or perhaps they may be more properly termed armfuls, place it on end in little stooks or cones—two small armfuls, about the size of sheaves, to each cone, and with a band of one length of the hay tie the cone at the top—no other tying but that; then all that is required is to see that these cones are kept on end till the hay is ready for rick-ing or stacking. Select a good day: spread them into winnows to dry the bottoms more thoroughly, and collect into ricks or stacks, as may be desired. By the above plan very good hay may be made in weather when by any other method that I have seen it would be much hurt, and the labour is about the minimum. No doubt but that in fine weather, by letting it lie flat, it may be carried sooner, but there is more risk of getting it spoiled, and the dews, even in fine weather, bleach it more.

CROPS GROWN IN RIDGES.—I had observed that formerly in my part of the country it was the custom to ridge up land that had been neglectfully cultivated, in order to bring it back to its former good condition. This custom had almost become obsolete, and I frequently wondered why it did not become general, as it improves the soil and rids it of weeds. The dearth and rarity of manual labour caused me to reflect upon introducing on my own farm cultivation in widely set ridges. I had the hope of thus growing larger crops at less cost; meanwhile I wanted a combined implement to enable me to do the work well. A large size of Howard's double-breasted ploughs enabled me to attain the purpose, with a drill which I had modified for sowing beetroot, turnips, and colza. This mode of cultivation is at once advantageous and economical, and suits all soils. In stiff land it sweetens and fertilises the soil by exposing a maximum of surface to the action of the atmosphere. It suits also light soils with a thin layer of humus, for in heaping up the land to form the ridge, the cropping depth is in some sort doubled. All my ridges are set 32 inches apart. Ridges cause the soil to mix, and fermentation to take place rapidly, because all the atmospheric principles play a double part. The time of sowing is accelerated; it can be done even in wet weather, and as well before winter as when the frosts are over. The apparatus used, and

a specimen of the cultivation, will be exhibited during the time of the Paris Exhibition of 1867 on the Island of Billancourt. The only way to appreciate this mode of cultivation and to know the result of it, is to examine it with one's own eyes. It would take a great deal of writing to enumerate all the advantages of growing crops in ridges; those who personally examine it will understand them. One of its advantages I have omitted. When we have heavy rains after sowing beet on the flat the earth becomes glazed—a crust is formed which prevents the beets from shooting up; the plant is then like a corkscrew in a corked bottle. This inconvenience is avoided by planting in ridges.—*M. Decrom becque, of Lens, near Arras, Pas de Calais, in the Journal d'Agriculture Pratique.*

SCENE IN A HARVEST-FIELD.—The *Edinburgh Courier* gives the following report of an extraordinary scene which took place after the recent trial of reaping machines, at Carberry Mains:—

"After the competition, a scene occurred on the public road leading to the fields, which may be common enough in the district, but which in the eyes of a stranger must have certainly appeared very ridiculous. About thirty or forty of the female workers employed as 'lifters' in the competition assembled together, and in the most good-humored but determined manner seized hold of several farmers as they left the field, and hoisted them on their shoulders in the most ludicrous manner. These amazons went about the matter in the coolest way possible, and they did not confine their attention to the farmers, but one young landed proprietor they once and again surrounded and heaved shoulder-high. A portly-looking farmer, not less than 20 stone, suspecting that he was to be made an object of attack, ran off as fast as he was able. He was followed by the females, who soon overtook him, not, however, before he had stumbled and fallen to the ground. After having raised him up and satisfied themselves that their victim was none the worse for his fall, the 'lifters' coolly removed his hat, and placed it on the roadside; seized him by the shoulders and legs, and dandled him about like a plaything. They then released him, placed his hat on his head, and having expressed a hope that he had sustained no injury by his fall, they let him go. Another farmer was chased for a considerable distance, but being lighter of foot than his neighbour, he escaped. Some of the victims purchased their ransom by throwing money to their captors, while others submitted to the ordeal rather than pay the black mail. This continued till all who ventured to run the gauntlet had left the place. The custom—which is, no doubt, looked upon as fun by the females—is followed, we understand, in some parts of Fife and the north; and if we mistake not, there is a reference in Chambers' 'Book of Days' to a similar practice in some districts of England."

The Sowers.

They are sowing their seed by the dawnlight fair;
They are sowing their seed in the noonday's glare;
They are sowing their seed in the soft twilight;
They are sowing their seed in the solemn night;
What shall the harvest be?

They are sowing the seed of pleasant thought;
In the spring's green light they have blithely wrought,
They have brought their fancies from wood and dell,
Where the mosses creep and the flower buds swell;
Hark shall the harvest be.

They are sowing the seed of wisdom and deed,
Which the cold know not, nor the careless heed;
Of the gentle word and the kindly deed
That have blessed the earth in its sorest need,
Sweet will the harvest be.

And some are sowing the seed of pain,
Of dire remorse and a maddened brain;
And the stars shall fall and the sun shall wane,
Ere they root the weeds from the soil again;
Dark will the harvest be.

And some are standing with idle hand,
Yet they scatter seed on their native land;
And some are sowing the seed of care,
Which their soil hath borne, and still must bear,
Sad will the harvest be.

They are sowing their seed of noble deed,
With a sleepless watch and an earnest heed;
With a careless hand o'er the earth they sow,
And the fields are whitening where'er they go,
Rich will the harvest be.

Sown in darkness or sown in light,
Sown in weakness or sown in might,
Sown in meekness or sown in wrath,
In the broad world-field or the shadowy path,
Sure will the harvest be.

The editor of the *Mobile, Ala., Register* thinks the principal advantage possessed by the Northern farmers over those in the South is in the better implements used by the former.