

## Grasses and Forage Plants.

### The Uses of a Grass-Crop.

The cultivation of the natural and artificial grasses, and other forage plants, no doubt originated in the necessity of providing food for domestic animals during winter, and at such times as pasturage could not be resorted to. It would be interesting to have the history of hay, for example,—to know who invented it,—whose mind hit on the useful idea of curing and storing up the green herbage of the field. Very likely it was an accidental thing. Some grass in its most succulent state had been cut for another purpose, and a hungry graminivorous beast ate it with such evident relish, that the inference became plain, and hay-making came into vogue. From appearances, it would seem hardly uncharitable to conclude that many farmers regard this original use of grass crop as the only one for which it is worth cultivation. To have enough feed to carry the live-stock through the winter, is the beginning and end of all their ideas on the subject.

"Well, what matters it," the cursory reader and superficial thinker may ask, "so long as the creatures are duly provided for and fed?" We answer, there can be no good farming when so narrow a view is entertained, and it is every way desirable that whatever is done on the farm would be done intelligently and well.

The first and most important use of a grass crop is to preserve and if possible increase the fertility of the soil. These results are attained in two ways:—by resting the land from incessant grain-growing, and by providing a store of manure with the droppings of the animals fed on the grass. Both as a rotation and a fertilizer the judicious cultivation and home consumption of grass are of immense value. The two phrases "judicious cultivation," and "home consumption," however, mean a great deal. Seeding down while the land is in good condition; top-dressing if there are successive cuttings taken off; mowing at the proper season; curing in the best possible manner; are comprehended in the former phrase:—while seeing it all to the stock of the farm; eking out with roots and grain to make it go as far as possible, and using the utmost and wisest economy in regard to it, are comprehended under the second phrase.

Another use of a grass crop is to lessen and lighten farm-labor. While in grass, land needs no ploughing, and in this country, where the growing season is so short and hurried, this is a most important consideration. Every farmer should aim so to balance and arrange the work of his farm, that while the whole year should be consecrated to industry, there should be as few great rushes as possible. The strain of regular, moderate, systematic toil, is far less than that of excessive effort now and then. Moreover, many are compelled to hire at certain times because of the urgency of work, that must be done just then, and on a sudden, might dispense with the hiring, if the advantages of their profits. In Britain, grass lands are left unbroken for long terms of years, and more seems no good reason why with improved methods of husbandry, we might not do the same, thus enabling us to bestow more and deeper ploughing on the fields that are broken from year to year.

There is also a mechanical effect of grass on soils of a certain texture. They loosen, aerate, and mellow them. If we include the clovers among the grasses, as we fairly may in treating of the uses they subservise, their long tap-roots are eminently serviceable in mechanically improving stiff-lands. A similar influence is excited when sod is ploughed under. Every farmer knows into what a nice condition a soil is brought by the rotting of a good green sward. This would be even more perceptible than it is, if we kept our grass lands in higher condition by top-dressings of well-rotted farm-yard manure, and artificial fertilizers.

Speaking still of the clovers, there is no small store of wealth in their blooms. Those of them that are accessible to "the little busy bee," as are the white and alsike varieties, are, in this country, the great source of the honey-yield. A completely stocked farm will have its apiary as well as its pigsty, sheep-fold, and poultry-yard, and there are none of the live-stock that will yield a more profitable return, than these untiring insect workers.

Moreover the grass-field is the source of one of the great charms of country life. Not poets and romancers merely but ordinary work-a-day people, delight to inhale the smell of "new made hay," and the season of hay-making is by common consent a time of merry-making and enjoyment. A farm without any meadow would be strangely incongruous and defective.

### Orchard Grass for Permanent Pasture

In answer to enquiries from a correspondent, the *Western Rural* has the following article on the above-named valuable plant:—

"Orchard grass is one of the most valuable of our early grasses, and ought to be more generally experimented with. It has, also, the quality of growing admirably in the shade of trees, and therefore, on well drained soils, is valuable. It thrives well on dry, well drained and especially on rich sandy lands. There is no doubt of its permanency in such localities; and, ripening as it does about the same time as clover, it is valuable in connection with this forage plant. Its especial value is the early feed which it makes in the Spring and its quick growth after being cut or cropped by animals, except during drouth, when, like other fibrous-rooted grasses, it starts slowly.

It should be sown, when not in connection with other grasses, at the rate of not less than one bushel of fourteen pounds to the acre. If sown thin it is apt to form stools or tussocks. The middle of August in your latitude is a good time to sow it. If not then, have the land properly prepared, smooth and mellow on the surface, and sow as early as possible in the Spring.

Orchard grass contains about 40,000 seeds to the ounce, and the seed ordinarily weighs twelve pounds per bushel, or fourteen pounds when thoroughly cleaned. Timothy weighs forty-four pounds per bushel, and contains about 74,000 seeds per ounce. In seeding for a permanent pasture, orchard grass should always form a large proportion of the varieties used.

The following quantities, recommended in "Grasses and Forage Plants" will give a good general idea of the quantity of seed used for this purpose. The great mistake usually made is sowing too little seed. For permanent pasture it is recommended to sow:

"Of meadow-foxtail, meadow fescue, red-top and rough-stalked meadow, each two pounds; orchard grass and perennial rye-grass, each six pounds; Kentucky blue grass and Italian rye-grass, each four pounds; timothy and red clover, each three pounds; white clover, five pounds, sweet scented vernal grass, one pound, making in all forty pounds of seed per acre."

This would give the enormous number of 54,000,000 seeds per acre, or about eight seeds to each square inch. That it is not too much is evident from the fact that old close swards in England have been examined, upon a square foot of which were about 1,000 plants, or seven to each square inch. One of the great mistakes among American farmers, in seeding both meadow and pasture land, is the sowing of far too little seed to make the acreage give the quickest and largest returns.

**RED TOP GRASS.**—A correspondent of a Minnesota paper writes: "Red top grass will do well on good fair wheat lands. Sown with grain it makes a firm, even sod, and is good for pasture or hay. It starts early in the spring, and is better relished by stock for early spring pasturage than Timothy grass. It is believed to be more free from dust than Timothy when cut and well cured for hay. Good, fair lands may yield one and one-half tons per acre. As grass or hay it is fine, sweet, nutritious, making a firm, even sod, well adapted to plough under to enrich the land. There has been an old impression that red top absolutely requires wet, swampy land, but such opinion seems to be erroneous. I think it may be made one of our staple crops for home use. In sowing, be careful not to bury the seed too deeply, as it might not come up."—*Prairie Farmer*.

**TIMOTHY.**—In his interesting essay on "Grasses and their Culture," the Hon. J. Stanton Gould, in alluding to our common timothy (*Phleum pratense*), states that the largest stock of which he has any knowledge, was raised by Rev. Charles Collins, of Montgomery county, Pa. It was seven feet, eight inches long. The heaviest crop raised in this country was that of John Fisher, of Carroll county, Md., making five tons, and 1620 pounds of cured hay per acre. The heaviest crop he had ever seen was that of Geo. Geddes, near Syracuse, who cut three tons of prime hay from a single acre. The authority states that an experimental plot at Woburn, England, cut 40,837 pounds (18 tons, and 517 pounds) of green timothy per acre, which lost 23,451 pounds by drying.

## Implements of Husbandry.

### Portable Scaffolding.

It is often necessary to fix up eave troughs on the barns, or dwelling-house; fasten boards or doors at a distance from the ground, which may have become loose, repair the roofing, and a dozen of other different nick-nacks, all of which require the use of a ladder in order that they may be reached; and this unwieldy article often entails much loss of both time and patience; for, should the work to be done, extend over more than a few feet in area, the operator has to descend perhaps repeatedly, and keep moving his ladder this way and that, until the whole is completed—thus, probably, wasting more time in his shifts than all the rest of the work put together.

There is a simple form of scaffolding which obviates all such inconvenience, and it is made thus: Take two pieces of scantling, 4 x 4, or 2 x 6, each about three feet long, and nail them together at their extremities, so that they will form a right angle; brace them well by means of two side pieces of inch board, that they may be quite firm. Next, take a long pole or scantling, from ten to twenty feet, according to the degree of elevation wanted, and cut the one end of it to fit nicely into the angle already mentioned, when the pole itself, or scantling, stands at an angle against the side of the building. Repeat this process—that is, make one or two more of the same, and your scaffold is complete. In using it, two men are required, sometimes three, when a middle, or third support is needed. Set up your angular pieces (first described) against the building, with one end on the ground, and the other jutting out towards you, and whilst in this position, set on them what ever planks you require for a footing; then insert the prepared end of your poles or scantlings into the angle, and raise the structure by their means as high as you desire; press the lower end of the pole into the ground, and all is ready and quite secure. By simply moving the lower end of your pole nearer to or farther from the base of the building, the entire scaffold is raised or lowered at pleasure.

### Punching Holes in Straps.

The punching of holes through the various straps of a harness, for buckle-tongues, and for attaching the buckles, is a matter of considerable importance, and does not, as a rule, receive the attention that it should. The old method, of punching them from the upper, or grain side of the leather, has been generally abandoned by the manufacturers of fine work, and being deemed injurious to the wear of the leather. The principal objection arises from the liability of the grain of the leather to crack from the strain of the buckle-tongue, and to be the cause, eventually, of the leather tearing, as it causes such a crease where the tongue catches, that it injures the texture of the leather, and makes it tear the hole more or less. In addition to this, if the leather is very strong, the tongue of the buckle is sure to be bent out of shape. All these objections can be obviated by punching from the under or flesh side of the strap, and by using a punch, the long sides being parallel with the length of the strap; the punch should be set at an angle of about twenty degrees, cutting the hole at such an angle that the buckle tongue will rest in it without throwing any strain on the inside of the leather.

Some object to punching the hole from the under side on account of its forcing the grain out, and thus disfiguring the outside edges of the hole. This can be corrected, however, by driving the punch through the hole from the outside, which will cut away the slightly turned edge of the grain, and set it down smooth and clean. It is not necessary, however, to repunch any holes except those that will be exposed when the harness is complete. Punches should be as thin as possible, as the extra thickness of the metal strains the leather.—*Harness Journal*.