

Grasses and Forage Plants.

Forage in Drought.

From Kingston westward we have had the usual summer drought, so trying to stock of all kinds, but especially to milk cows. In some places the pastures have been completely burned up, losing all tinge of green. The county of Wellington has suffered to a greater extent than usual. In the vicinity of Guelph the commons have worn a yellowish, rusty look, and the short, withered grass has cracked and rustled under foot, so crisp had it become with the combined action of heat and drought.

And yet, though this condition of things has become periodical if not chronic, the mass of our farmers make no provision against it, and are annually taken short, and astonished that their fields yield no forage. Are they ignorant of the fact that nature has provided a plant well suited to this climate, and exactly adapted to carry the herds through the emergency created by the dry season? Have they never heard of the high merits of Indian corn as a summer forage crop? Able to hold its own, and to flourish when other forage plants wilt down and die, full of succulent juices, yielding enormously to the acre, what more or better could be desired as a resource when all other green things fail? It is, we fear, less ignorance than prejudice which deters multitudes from the cultivation of this valuable crop. Farmers in the Old Country never grew it. Moreover, it is a Yankee affair. Not a few who have got over all prejudice against "Yankee notions," in the shape of reapers and mowers, hoes and hay rakes, still stand in their own light as to the valuable product under consideration. We have travelled for miles and miles the present summer through districts utterly parched with drought, without seeing a single acre, half or quarter acre of green corn waving its dignified defiance to the brazen sky and the burning sun. Now that the effects of the hard "dry spell" are fresh in memory, is a good time for us to urge and for our readers to feel the importance of having a patch of corn another year. We beg every farmer to try it, even on ever so small a scale. Choose a bit of the richest land on the farm. Sow it broadcast, after danger of spring frost is over, or, still better, drill it with Indian corn of the horse-tooth variety. Then when in August next the pastures are dry and withered, the milk-pail deficient, and the cattle hollow sided, fancy what a treasure a corn-patch covered eight or ten feet high with sweet, rich, juicy feed will be. This forage crop is easily raised. It wants no attention. The dense shade it makes will smother down all weeds. It draws largely on the atmosphere for sustenance, and therefore does not impoverish the land, which it leaves moist and mellow, fit for any subsequent tillage and succeeding crop. We say to all, do not let another drought catch you without a good plot of green corn in reserve for such a time of need as has just been experienced.

Top-dressing of Grass Lands.

A correspondent of the *Maine Farmer* improves a rainy day, during haying, by communicating to his brother farmers his views on the above subject. They are practical, common sense, and timely. He says: "To consider the subject properly and in all its varied relations, would require a longer experience and a closer observation than has been accorded to us, but what little we have shall be given freely, though in an article like this there is not room for any extended remarks."

Leached Ashes

We have used this fertilizer largely, but mostly on tillage land when seeding down to grass. They are of inestimable value to the farmer, and not a bushel should be allowed to go out of the State. Use from

150 to 300 bushels to the acre, according to condition of soil, and the catch of grass-seed—whether on low or up-land—will exceed that obtained in any other way and every dollar invested will come back in the grain and first hay crop; after that the extra result will be clear gain; as the effects of the application will last from six to eight years. Applied as a top-dressing, leached ashes are highly beneficial, but land should not be too much run out, if it produce only 500 pounds of hay, plough rather than top-dress; if it produce one ton of hay to the acre, apply 200 bushels of ashes, and in two years you will cut two tons of hay under ordinary circumstances. Whether it will pay or not will depend somewhat on the price of the ashes, the distance to be drawn, or any other fertilizer of equal value being obtained cheaper.

Barn-yard Manure

There is no doubt of its value; only conditions and modes of application are matters of discussion, and these—notwithstanding all that has been said and written—are still unsettled questions. But there is not the shadow of a doubt, that well rotted and very fine barn-yard manure is the best for top-dressing early in the fall—say September, or, earlier still, in August, the last summer month. But if put on late in the fall, then coarse, straw manure is the best, because there is less loss from washing. Although we prefer well-rotted and fine manure, yet when we have come to consider the length of time to wait and the increased cost of bringing our manure to the proper fine condition, we have generally—Yankee-like—used it in its coarse and half-rotted state. Still even in this way it pays, especially if the brush harrow be drawn over it, and a little grass seed sown. We have generally used from ten to fifteen ox loads to the acre. We have sometimes used a compost of muck, lime, ashes and manure, to great advantage. We top-dressed last fall—in September—over three acres with the above mixture, and we shall cut this year more than double the amount of hay we did last year on the same ground, and it was pretty good then.

We top-dressed last fall and this spring about eight acres, and to all appearance we shall cut from eight to ten tons of hay more than last year on the same land. Included in this were three acres of orcharding, mostly old trees, and I notice that the trees are looking very much better, greener and healthier, and it makes the grass grow under them too; so often in more ways than one top-dressing will pay.

Mixed Grasses for Pastures.

The value of a meadow consists in the amount of hay it will produce. Therefore, since it must be cut and cured to be available, it should be sown to such grasses as will ripen at a given time or nearly so. With pastures the case is different. The greater number of good grasses you can get into the pasture the more valuable it will be, and it is not necessary that they mature at, or nearly at, the same time, the pasture will be better if they do not, for this succession will give more feed than if there was a flush of grass during one portion of the season and a scarcity at other times.

If there were such a variety sown as to give a constant succession of growth, the pasture would be always green, where there was sufficient to support growth. This is not always the case in the United States, and especially in the west. Our annual droughts in July and August are terribly severe on both meadows and pastures. Nevertheless, we believe it will be possible, with care in the selection of proper grasses for sowing, to have pastures, if not of English greenness, at least such as will compare measurably, ere with, except for about a month in the heat of summer.

As showing the great value of mixed grasses for pasture it will not be out of place, although this has been heretofore discussed in the *Western Rural*, to note the fact that a single square foot of very rich natural pasture in England has contained 1,000 plants, 940 of them being natural grasses, and sixty of them clover and other plants, the whole number including twenty varieties. Another meadow, irrigated and otherwise carefully managed, contained, in a square foot of soil, 1,702 plants of natural grasses, and ninety-six of clover and other plants.

Again, as showing the necessity of thick seeding, a mixture of twelve varieties of grass, aggregating forty pounds per acre, gave, according to that on "Grasses and Forage Plants," the enormous number of 51,900,000 seeds, or about nine per square inch. Consequently, to produce the number of plants given in the case where 1,798 plants were found per square foot, we should be obliged to sow about twenty-five per cent. more than forty pounds per acre. From this, it is safe to say, first, we sow too

little seed for permanent pasture, and also, as a rule, we sow too few varieties.

The following is a list of grasses that it would be well to experiment with for permanent pasture in the west, which we give in the order of their ripening, and with the number of pounds per acre to be sown in the mixture. They are: Sweet-scented vernal grass, one pound; orchard grass, seven pounds; meadow foxtail, two pounds; meadow fescue, three pounds; Kentucky blue grass, five pounds; redtop, four pounds; Italian rye grass, three pounds; timothy, six pounds; red clover, six pounds; white clover, three pounds. This would give forty pounds per acre, and the principal grasses sown are those known to do well in the west. If the object be to produce a thick matted sward as quickly as possible, the red clover may be omitted, although it is probable that this grass would soon be crowded out in any event, and the pasture would eventually consist of those grasses most suitable to the soil and climate.

If the pasture be much shaded with trees, blue grass, orchard grass, rough-stalked, and wood meadow grass and white clover should predominate. If the pasture be quite moist, timothy, redtop, foul meadow, meadow fescue, and white clover should predominate, with perhaps some alsike clover. Whatever the kinds sown if a first-class pasture is intended, so soon as the sod gets firm enough to bear the tramping of hoofs, it should be closely fed and kept rich, but never allowed to be tramped when in a soft and muddy state, as is the case early in spring and sometimes after long continued rains.

Lucerne.

A correspondent of the *Country Gentleman* writes that journal as follows:—

"Please tell me through your valuable paper all that you can about lucerne—where the seed is to be obtained, price per bushel, how much to the acre should be sown, if likely to make a crop in this state, the best soil, etc. The accounts I have read make me anxious for the truth. If they are true, it must be a most valuable crop for hay."

Our contemporary replies:—

"The seed may be obtained of B. K. Bliss & Son, of New York city, and at other large seed stores, at about 60¢ per lb. About 15 lbs are needed for an acre. It requires a dry, deep and rich soil, and good cultivation till established. Under ordinary management and with common soils it is not very successful, but with suitable soils and management, it gives heavy and profitable crops. We cannot recommend it for general culture, but it is well worthy of limited trial in different localities."

A MAN in Stark county, Ind., pays his boy ten cents a quart for potato bugs, and the boy says that if next year is as good as this he can buy the old man out.

SMALL STONES IN THE MOWINGS.—It is an excellent practice to go over the mowing fields just after haying and pick up and carry off loose, small stones, which may have been startled by the tedder or horse-rake. A few hours time spent in this way some cloudy day, will afford the satisfaction of knowing that there will be nothing in the way of the mowing machine knives when a second crop of rowen is ready to cut, or when the machine comes around next year. Besides it may save expensive breakages and serious delays while the duplicate parts are being sent from long distances. Mowing machines always seem to break just when they are most wanted. Small fast stones that are too small to be seen in thick grass, may often be knocked out of the way or have their top broken off by a heavy sledge hammer. It will pay to try it.—*N. E. Farmer.*

HUNGARIAN GRASS.—It wants rich soil; it should not be sown before the first of June, it may be sown as late as the 20th. One bushel of seed is none too much to smother weeds and make fine hay, it should be cut before all is in bloom; cut when the dew is off, and tend well and rick it, as any wetting hurts it much more than any other hay. It is not hard to cure, but if heavy, needs two days' sun. Mow and feed as other hay, and for milk cows or horses it is as good as the best. If cut late it is hard fodder; if sowed thin it is coarse fodder. I have raised two tons to the acre on plain land, by applying 400 pounds of Peruvian guano harrowed in before the seed was sown. It is good when one wishes to add to the mow a few tons of hay more than their land in grass will yield. Cows can be raised on night soils cheaper, but it cannot be raised as it by mages in a few weeks. I think it better than corn stover.—*Cor. N. E. Homestead.*