

## Grasses and Forage Plants.

### Red-Top—*Agrostis Vulgaris*.

The Red-top, *Agrostis vulgaris*, illustrated on this page, is one of the best known of our grasses, and one which, although lightly esteemed by some farmers, is a really valuable grass, in some situations being the most valuable of all grasses. In Pennsylvania it is known as Herd's grass, in New England as Burden's grass. It grows from one to two feet high, and flowers in July. Its favorite home is in wet pastures and swampy meadows, where its roots interlace and consolidate the sward. Its seeds weigh about twelve pounds to the acre. Cattle relish hay made from this grass, especially when mixed with other varieties. Dairymen value it as a pasture grass.

The Woburn experiments give the following as the product of an acre:—10,209 pounds of grass, which, in drying, lost 5615 pounds and afforded 532 pounds of nutritive matter. At the time of seed-ripening it yielded 9,525 pounds of grass, half of which disappeared in drying and from which only 251 pounds of nutritive matter were obtained.

Mr. Charles Julyan writes us from Presqu'île, Owen Sound, with respect to this grass:—"It appears to be indigenous in Canada. I have noticed it on my farm, amongst other grasses, although I have never sown it. The flowers are in a loose open panicle. The spikelets are one-flowered or one-seeded, and the whole head has usually a reddish purple color, very conspicuous where growing in quantity in meadows. It grows about two feet high; roots creeping. This grass is widely known. In England it is called Fine Bent. It succeeds best on rather moist soils, where it is one of the most valuable grasses, although as a whole, much inferior to timothy. It is well adapted (like June grass) to sow with the latter, and forms a dense sward over the surface, which otherwise is left bare after cutting timothy for hay. It is perennial, and makes good permanent pastures in which it should be fed down so as to prevent going to seed, which renders it unpalatable. It is one of the best lawn grasses, and sown with June grass and white clover, forms with weekly mowing a beautiful green carpet. The seed is small and four to six quarts usually seeds an acre."

### Manure for Grasses.

The Michigan Agricultural College experimented with different manures as top-dressing for grasses, with the following results, as reported in the *Michigan Farmer*:

The results of a single top-dressing on eight plots of nearly half an acre each of sandy warm soil, exhibited the following facts at the end of three years; the top-dressing was applied in 1864, and the grass was cut twice each season in 1864 and 1866. The produce of each cutting and of each lot was weighed separately and a perfect record kept. The results of the four seasons were as follows: On the plot to which no manure or fertilizer was applied, the total weight of hay yielded per acre was 8,740 pounds. Where two bushels of plaster per acre were applied the yield per acre was 13,226 pounds, a gain of 4,484 pounds. Where five bushels of wood ashes were applied the yield per acre was 12,907 pounds, a gain of 4,165 pounds. Where three bushels of salt were sown per acre, the yield was 13,969 pounds, a gain per acre of 5,227 pounds. Where 20 loads of muck per acre were laid on, the yield per acre was 13,816 pounds, a gain of 5,074 pounds. Where 20 loads of horse manure were laid on, the yield was 14,686 pounds, a gain of 6,224 pounds. These are results which indicate that there are fertilizers which will produce as good results as plaster. For instance, the plaster yielded a gain of 51 per cent., while the horse manure gave an increase of 71 per cent., or nearly a ton more grass per acre in the three years.

**FREQUENT SEEDING ADVISABLE.**—Clover is at its best for pasture or hay the second year after seeding. If allowed to grow through that year, its roots extend as far as they ever will, and the ley is in best condition for ploughing. If kept longer the clover runs out, and its place is left vacant or filled by weeds and inferior grasses. If timothy is mixed with clover at seeding, it will partially occupy the ground as the clover retires, but never so fully as if the original seeding was timothy. In short, keeping a clover sod over the second or third year, at most, is generally bad policy, and should be discouraged. For one or two years land in clover increases in fertility; after that the advantage is less until another seeding is had.—*Country Gentleman*.

### Mixing Clover and Timothy.

The custom of sowing timothy and clover together is an old and extensive one, and pretty well established, showing that it has something to recommend it; yet an immense loss is sustained as it is now practised. In the first place, there is the too common habit of thin sowing, then that of late sowing; also that of sowing on poor land or land badly prepared. Every reasonable farmer knows that thin seeding, or a poor catch, is worse than no seeding at all, as at best it gives but part of a crop, which does not pay for the labor and seed expended, and the use of implements and land. A total failure, as was the case two years ago, is preferable, as it necessitates the re-ploughing and re-seeding of the land, with a chance for improvement, if the same recklessness is not repeated, which generally is, trusting to the season for luck, and not to a judicious preparation of the soil. The majority of seedings are too thin; the land does not carry what it is capable of doing, and what affords the greatest profit; and the trust is to nature for supply.



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ing what the farmer neglected. But this is a slow process, and will not succeed if the land is not suited to it, which it rarely is. We cannot afford to wait; it is loss. It is a blind effort to attempt to grow a good crop on poor land, whether this crop is of grass or grain. It requires a good soil for grass or clover, as well as for grain or anything else. But we seem to be thoughtless. We are apparently of the opinion that forage plants are an enricher of the soil (which is true enough), and all that is necessary is to put in the crop. The failures have been so numerous that it is a surprise that farmers should persist in such a course. They do not see to the cost.

Thus much for general seeding. Now for clover and timothy in particular. The usual way is to sow equal parts by measure. This is the cause of much mischief. Where the land is good and the seeding a thick one, as it should be, the first year or two will show a heavy yield of clover, which smothers the timothy. At the end of the two years, when the clover disappears, the land must be re-ploughed or re-seeded, which may be done with advantage. Harrow well in the spring as soon as the land will bear it; sow and cover the seed; a Thomas' smoothing harrow is the best to

do this, as it does not bury the seed too deeply; or sow on the late snows. This will afford a crop the same season, and secure a good stand. The fault here is the loss of the seed (timothy) in the first sowing. The clover should have been sowed alone. This is the plan I prefer. Get all the clover the land will bear, by preparing the soil well and sowing thick. This will be one of the most paying crops, and besides, the land will be prepared for the timothy which is to follow. It will be largely enriched and made mellow, and insure a good catch if the seed is put out in good time.

There is another way that has proved highly successful; it is to double the proportion of timothy to clover—say eight quarts of the small seed to four of the latter per acre. This will give a fair yield of clover, with a "bottom" growth of timothy, making a large and excellent crop. At the disappearance of the clover the timothy will be there to occupy the field. The small proportion of the clover enabled the timothy to get a good footing, filling up the vacant space, giving also a chance for the sun and air to help it on. It is true that the clover by this method will not be so heavy—though a good crop; yet the lack will almost be made up by the timothy. This addition will make a fine, tender feed, and afford variety. It will do excellently for all kinds of stock if harvested in time. My friend Smith makes this his practice, only he sows much more seed per acre. He always has a heavy sod from the start. The land being good, and in good condition, he grows large crops of timothy, the clover aiding in the preparation of the land by enriching and mellowing it, the nitrogen gathered by the clover being taken up at once, or before the rains wash it out. In this way the timothy is saved and made to do service from the start.

A crop of pure clover is excellent as a crop by itself, capable of being made a large yield, and is highly nutritious for winter feed, while the land is immensely improved; but it does not leave it a meadow. Clover is eminently a grass killer. There must be a chance given for the timothy, and from the start, else the powerful legume will smother and kill it.—*Cor. Country Gentleman*.

### Lucerne—Alsike.

**EDITOR CANADA FARMER:**—I have neither heard nor seen anything of Lucerne in this part of the country, although I have seen English Rye-grass mixed with Alsike and Red clover, and looking well on a farm in this township. The proprietor approves of Alsike clover as a forage plant. It was not growing so long as the red clover when I saw it, but he assured me, he had counted one hundred and forty-three stalks growing from one root. Some years ago in a wet summer I saw a stalk of Alsike about 8 feet long, but I believe it requires a good soil and a moist season to grow so long as that, unless there are two varieties of it.

I seeded down a field of spring wheat with Alsike and Timothy last year. The Alsike took well, but the Timothy did not. This season it is, as might be expected, considering the severe drought we have had, very short; and the crop of hay throughout the country will be very short. Very little fall wheat is sown in this country, except on the Indian Peninsula and there it will hardly exceed half a crop, being badly winter killed.

Spring wheat, barley, oats, and pease, are looking well though rather short in the straw. Potatoes are looking well, and where pains are taken to destroy the potato beetle, will perhaps give a good crop unless the present dry weather should continue throughout the growing season, but the grubs which in some places frequently injure the crops are very little complained of. Mayfield beans are generally more or less injured by them, but this year I have not noticed a single bean cut down by them, though, owing to the drought, many of the beans failed to germinate.

Owen Sound, July 20th.

SARAWAK.

**GRASSES FOR LIGHT SOILS.**—Flint recommends the following mixture of grasses for light sandy soils:—Tall Meadow Oat grass, 3 pounds; Orchard grass, 4; Hard Fescue, 6; Meadow soft grass, 3; Italian rye grass, 4; Perennial rye grass, 10; Timothy, 3; Red clover, 3; White clover, 4—total 40 pounds.

**LAWNS.**—Mr. Elliott writes to the *Gardener's Monthly*:—"Glad to see again your caution about barnyard manure as an indication of weeds: you should also say, use no street sweepings, for they are all full of weed seeds. Your former words advising well rotted mould spread over an inch or less in depth was one of the best advices. My practice, however, has been in early winter to sow fine bone meal, then in, say February, use salt, and soon after the grass starts in spring, plaster. The quantity of each depends upon the condition of the lawn and what has before been applied; if much manure has been used, more salt can be used than where little has been, and less plaster is needed."