

Grasses and Forage Plants.

More about the Prickly Comfrey.

The last number of the CANADA FARMER contained an article upon, and an illustration of the Prickly Comfrey, a plant now grown in Ireland, and extensively by a gentleman in Leicestershire. By the qualities claimed for it, it would seem to be worthy of attention. Since our last issue was published, we have chanced upon a laudatory description of the plant and its culture, in the *Quarterly Journal of Agriculture* for 1832. The plant is described as the *Symphytum asperinum*, hardly perennial, of gigantic growth, introduced into England from the Caucasus in 1801, as an ornamental plant. After describing it botanically, the writer says that the seeds assume, as they ripen, a dark brown and finally black color, and, if not collected at a critical period, fall to the ground and are lost. Generally speaking, the seeds were not fertile if collected and sown the following spring; but, if allowed to fall and then planted with some of the earth gathered up with them, they would grow all right. Subject to this difficulty plants may be raised from seed; but, by separating the roots, they may be propagated indefinitely. This division may be done at any time when the owner may desire to increase his stock.

The writer we are quoting increased his stock from two plants to 40,000 in five years. It will grow in all soils and situations, he says; by the side of ditches, corners of fields, orchards and waste places, succeeding best in a stiff but pale sandy loam. It is very early in its habit, for at the time of the writing, at the end of April, a bushel basket of leaves had been stripped daily from a small patch and given to a cow, at a time when the grass on the same patch was only just assuming a green tint. A case is quoted where a single cutting yielded an average of 17 tons, 3 cwt. per acre, and as it is claimed it can be cut every six weeks, the immense weight obtainable can be seen.

Horses, says the writer, eagerly eat the leaves; cows, not so freely at first, but soon are as eager as horses; sheep and lambs take it freely; swine eat both leaves and stalk freely. With respect to tillage, it is recommended that, after the final gathering, the ground be ploughed between the rows and left over winter; in spring ploughed again, and a little mould brought toward the plants; and, when the ground gets trodden hard, it should be stirred again. The writer says that he never knew a plant to die, though cut continually. Some had stood more than 20 years and were in full vigor.

Applying the same kind of reasoning to the Prickly Comfrey as we used lately with respect to the Hullless oats, it may be said that a plant with so many virtues and known for so long would have come into general use if its culture had been found profitable; and such reasoning would be sound. But we are not aware that the *Symphytum* has ever been tested on this continent, and therefore the very reasons (if any) which have kept it from coming into general use in Britain, might not apply here. A plant of such remarkable tenacity of life, and with such healthy-looking roots (see engraving in last issue), would certainly be a heart-breaker to eradicate; and probably this fact has something to do with its non-culture. But the need of an early forage plant that will yield greatly and will stand our extremes of climate (and a Caucasian plant ought to be able to do this last), is now so universally recognized that the Comfrey is worthy of trial on a small scale. We shall be happy to record any facts in its favor or disfavor that our readers may discover.

Blue Grass—"Poa Pratensis."

The illustration on this page is of one of the most valuable of the pastures grasses—*Poa pratensis*, variously called in our language, Blue grass, Kentucky Blue grass, June grass, Green grass, Smooth-stalked Meadow grass, and Spear grass. This grass is easily influenced by soil and climate and hence its value is variously estimated in different localities. Thus, while the famous pastures of Kentucky, where animals fatten faster than elsewhere, and the fine meadows and pastures of the green mountains, in Vermont, are composed principally of this grass, in north and north-eastern Ohio it is thought to be an un-

desirable visitant to the farmer's fields, chiefly on account of its exceeding tenacity of life, and the difficulty of its eradication. Like the Canada thistle, it is blessed with creeping roots which render it indestructible by fire, frost or drouth. When once it gets fair possession, nothing but constant ploughing can extirpate it.

Poa pratensis is indigenous in Canada and the Northern States, but there are legends in Kentucky, dating back, of course, to Daniel Boone, that a family from England who accompanied that famous pioneer to Boonsboro, brought the seed with them; that, the seed being sown, the grass was found to be a nuisance, was rooted up and thrown over the fence, from there spreading all over the State. In parts of Pennsylvania, June grass grows spontaneously, it being only necessary to well manure the ground, when the grass comes in at once and grows luxuriantly. In parts of Illinois, June grass will spring up whenever the prairie has been depastured, though not a blade has been known to exist before, and it will grow so vigorously as to exclude the former prairie plants.

This grass is difficult to distinguish from its close ally, the Rough-stalked Meadow grass, *Poa trivialis*, illustrated in the CANADA FARMER of April last. A comparison of the engravings will show the difference between the flowering plants. The smoothness of the leaves and culms of the *pratensis*, which are rough in the *trivialis*, and the blunt



ligule (that is, the flat part of the leaf in contradistinction from the part enclosing the stem), which in the *trivialis* is long and acute, will also distinguish it. But the difference will be readily perceptible in the roots, which in the *pratensis* are creeping, and in the *trivialis* fibrous. Under a microscope the seeds of the *pratensis* may be distinguished from those of its ally by the former appearing hollow on the face. Those of the *trivialis* are shorter, rounder and flat on the face. The *pratensis*, the subject of this article, is much the more early grass, coming into flower three or four weeks earlier than the *trivialis*, and being superior to it in nearly all respects.

In the Woburn experiments, the production of *Poa pratensis* on an acre was 10,209 pounds, which lost 7,337 pounds in drying, and gave 279 pounds of nutritive matter. When the seed was ripe, it yielded 8,507 pounds to the acre, lost 5,104 pounds in drying and gave 199 pounds of nutritive matter. Of aftermath, it produced 4,033 pounds to the acre, that yielded 111 pounds of nutritive matter. The chemical analysis of its properties by Way and by Scheven and Ritthausen gave the following results:

| | Way. | Scheven & R. |
|--|--------|--------------|
| | pounds | pounds. |
| In a hundred pounds of grass there were found: | | |
| Water | 67.14 | 62 00 |
| Albuminous or flesh forming matter | 3.41 | 4 00 |
| Fatty matter | 0.86 | 1 10 |
| Heat-forming principles | 14 15 | 15.40 |
| Woody fibre | 12.49 | 15.60 |
| Mineral matter and ash | 1.95 | 1.90 |
| | 100.00 | 100.00 |

The difference in the above analysis illustrates the fact above alluded to, viz., the variable value set upon this grass in different locations. Its chief value is to the dairyman to whom it is, indeed, indispensable. The best butter cannot be made where blue grass is wholly missing from the pasture, and whenever the sweetest and best butter is made, this grass will be found one of the most abundant varieties. Its effects are also particularly marked on the cheese made from pastures in which it is a principal part. It imparts a peculiar high flavor to the cheese, and curd derived from it is converted quickly into a rich, salty article far superior to, and less difficult to make than cheese got from pastures in which Blue grass is not prevalent.

Blue grass is natural to Canada and will introduce itself everywhere. There are places on most farms, such as steep side hills, gorges and banks of streams, which are useless for arable purposes. These may be seeded with Blue grass, at the rate of about a bushel of cleaned seed, weighing fourteen pounds, per acre. For lawns, Blue grass is the grass, and should predominate in a mixture in which red-top, orchard grass, and creeping bent-grass may be included.

Alsike.

Alsike clover was discussed at a recent meeting of the Elmira, N. Y., Farmers' Club.

W. A. Armstrong said it makes good pasture while it lasts, but it has no such endurance as the native grasses, and except as pasture, in its brief season, will bear no comparison with our common clover.

Mr. Billings sowed the seed with great hopes of producing good and permanent pasture, but disappointment followed. He had ten or twelve acres seeded with alsike, and found it made but small growth, and the plants did not stay. There was nothing like the amount of feed expected from the descriptions given of growth elsewhere—much less than on average pastures of native grasses—and what there was, soon disappeared.

President Hoffman sowed alsike two years in succession. The first year after the seeding it looked well, and made fine growth in every case, the pasture being of fine quality, but that season was all in which there was anything to commend. He had some made into hay, which looked green and fresh, as if it would be dainty feed for cattle, but by his standard it proved very inferior.

R. C. Armstrong used it to a small extent, and with the same results. It made excellent pasture while it lasted, but as hay it was worthless. His cattle would not eat it. After the second year it all disappeared.

James McCann regards it as a complete failure.

RIBBON GRASS.—Referring to the article in the last CANADA FARMER on the above grass—*Phalaris Arundinacea*, (L. Gray, Wood,) *Phalaris Americana*, (Elliot, Barton, Eaton,) is certainly a native species, though not found near Toronto. Variety *picta* is Ribbon Grass. *Phalaris Canariensis*, (L. Gray, Wood;) is an introduced annual species, originally from the Canary Islands. The common names are Canary grass, Canary seed.—W. BRODIE, Toronto.

CUTTING GRASS EARLY.—I have been watching a grass field since last July, part of which was cut early with a mower, and the rest left three weeks later. The square block of two or three acres in the centre of the field, which was cut last, seemed almost killed all the fall. The grass was timothy, and very little aftermath appeared, while the outside of the field cut first was bright and green. The same result appears again this spring, and I judge the middle of the field will not yield a half ton of hay per acre, while the outside may go up to a ton and a half. The meadow is past its best, and if the owner is wise he will plough it up and plant it this spring preparatory to re-seeding. Even here the lack of growth last fall must make this part of the sod less valuable, even for ploughing under. Add to this that the early cut grass was best for hay, and it makes a strong case for early cutting. It is equally important for clover, and indeed unless clover is kept very closely cut or pastured the second season, so as to prevent its seeding, it is rarely worth keeping for grass the third year.—*Country Gentleman*.

ORCHARD AND BLUE GRASS.—A Kentucky correspondent of the *Southern Agriculturist* writes:—While I think there is no grass equal to blue grass, yet I like orchard grass in some respects better than blue grass. In the first place you can graze it two weeks earlier in the spring, which is a very decided advantage over blue grass. If you graze properly, its fattening qualities are equal, if not superior, to those of the blue grass. In the next place, if you have a good stand, it affords as much, if not more grazing to the acre, than blue grass. Again, I have seen blue and orchard grass in the same field or pasture, growing side by side; a drouth of some four or five weeks would cause the blue grass to become dry enough to burn, while the orchard grass will be green and luxuriant, comparatively speaking. This is another great advantage over blue grass.