

# FOR FARMERS' STOCK BREEDERS AND GARDENERS

## NEWSY NOTES

BY AGRICOLA

### ROMAN SPEAKING TUBES?

In a recent ad. in The Guardian, the Romans in Britain, "1700 years ago," are said to have conveyed signals along the Roman Wall by means of hollow pipes, and there is a picture of two soldiers, one of whom seems to be holding one of very modern-looking upright iron pipes. As a matter of fact the old traditions have it that speaking trumpets (sic) or pipes ran along the whole length of the wall. But no one is known to have seen these speaking-tubes; though earthen and lead pipes, for the conveyance of water, are not infrequently met with in the "stations," as the Roman fortified towns are called. As for iron pipes it cannot be proved to have seen any of Roman origin.

However, when one considers the arrangements on this great fortification it is seen that such means of transmitting information would not be needed. In addition to the "stations," of which there are 23, just south of the Wall, "Castella" on the Wall itself provided quarters for the troops actually on duty. These castella are known as "mille-castles" because they were distant from each other the space of a Roman mile (about seven furlongs). Between the mille-castles were placed subsidiary buildings generally denominated turrets or watch-towers. The distance between the turrets (which were in reality "sentry-boxes") was 308 yards, so there were four between every two castella, and 320 along the whole line of the wall. Horsely, the antiquary, logically sums up thus: "By placing sentries in each of these (turrets), who must have been within call of one another, the communication quite along the wall might be kept up, without having recourse to the fiction of a sounding trumpet, or pipes laid underground from one end of the Wall to the other."

### CONGRESS ON BRUCELLOSIS

Last year the first International Congress on Brucellosis was held at Avignon, in France. The disease, now known as undulant fever, has now been found in almost every country in the world. It is not even a new disease, but in severe cases resembles typhoid fever so much that for long it was not recognized as distinct. It has also been mistaken for rheumatism, heart disease and neurasthenia, and slight cases, with the accompanying lassitude, have been put down to plain laziness.

There is a considerable history attached to Brucellosis. It began in 1887 when Sir David Bruce, of the Royal Navy, first isolated the germ of "Malta fever," a disease which annually sent a very large percentage of the garrison of Malta to the hospital. The germ was afterwards found in the goats milk, which is commonly used on the Island of Malta. Then in 1896, Prof. B. L. P. Bang, of Copenhagen, found the germ of contagious abortion in cattle, and this disease became known as Bang's Disease. In 1905 the Bureau of Animal Industry, U.S.A., imported 65 goats from Malta and on arriving at the quarantine station eight out of the crew (out of a total of twelve) had been seriously ill. All had been using goats' milk during the voyage, but those who remained well, had their milk boiled before using it. Now our cousins like to be different, so they named the disease undulant fever, instead of Malta fever, because the temperature rose and fell, lower in the morning and higher at night.

By 1917 it had been discovered (in the National Health Institute, U.S.A.) that the germs causing Malta fever in man, and Bang's disease in cattle, were practically the same; they were two types of the one germ. Then it was found that not only humans, goats, and cattle, but also sheep, swine, and other animals. The germ was now called Brucella abortus, and the disease was henceforth known as brucellosis. In 1923 a case of undulant fever was reported from Baltimore;

and in 1932 there were known to be 1,787 cases, some from every State in the Union. In Ontario the Provincial Department of Health reported 225 cases, with 15 deaths, in 1932-33. In the former year there were 3,000 cases recognized in France, hence the Congress.

The symptoms are headache, tiredness, weakness and fever; the patient often sweats a good deal. The attack, if mild, may be over in two or three weeks; a bad one may last two years. Both people and animals, while apparently healthy, may be "carriers," with the germ of undulant fever in their blood, and consequently may spread the disease to other people or animals. There are however very few cases where milk is pasteurized; and personally I only use milk when boiled, a course I recommend to my readers for more than one reason.

The bacteria for the presence of Brucella abortus are carefully described in Bulletin No. 150, New Series, entitled "Bovine Infection Abortion," a pamphlet which may be obtained (free) from the Publications Branch at Ottawa. As the disease is very insidious the symptoms and tests should be familiar to all.

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### NOTES FROM THE GARDEN

Overhanging the verandah is a shrub which I jokingly name "the climbing apple," and visitors are likely to believe me, when the shrub is not in bloom, for the leaves strongly resemble those of that fruit. Just now the plant is covered with thousands of tiny greenish flowers, which exhale a fragrance as of "lemonade" or lemon water sweetened with sugar. Its true name is the Japanese Bittersweet, *Celastrus orbiculatus*. As it happens my plant bears staminate flowers only, but the female plant is said to bear orange and scarlet berries, which cling to the shrub with excellent effect in winter. I am about to try propagating the Bittersweet by cuttings.

There are also in bloom the two varieties of Iris found wild in British Columbia, and both are pretty, though small. They are the Iris of the present day. They are the Yellow Iris, *I. pseud-acorus* L., and the Blue, "Giadwin," *I. foetidissima*. When I was a school boy, the children used to gather these Irises by the brookside and called them "floor-lucies;" a title coming from the times when the flower-de-luce or fleur-de-lis adorned the royal coat of arms. If we go back further still, and to the hearer of good news, the rainbow was her path, the bridge to the Greek mythology, the bridge of the fleet-footed messenger of the gods between sky and earth, and has taken her name.

"Let me hear from thee:  
For whosoever thou art in this world's globe  
—Shakespeare: Henry VI.

Ruskin says that the fleur-de-lis, the flower of chivalry, has a sword for its leaf, and a Lily for its heart. The Iris had formerly many uses, according to the herbals; but now its root is the source of Iridin, a powerful hepatic stimulant.

The Horned Poppy, *Glaucium flavum*, another English wild flower, has just commenced to bloom. Its golden yellow flower is from 3 to 4 inches across and is succeeded by a "pod" nearly a foot long, which accounts for its popular name. Its grey-green lanceolate foliage, with its lobes pointing in all directions, is very handsome.

And lastly the British Geranium lucidum, the shining-leaved Geranium, is opening its tiny pink flowers under strange skies. This plant is found under hedgerows, or growing on old walls, right from the Orkneys southward, but is local; that is, it grows in patches as it were, and is not generally distributed.

Outwinters are relatively scarce in the garden this year; at least four times the damage was done last year.

But the garden ants are plentiful, tunnelling under the dahlias, gladioli, and other bulbous roots by preference. Such plants develop a yellowish, unhealthy appearance. To control these pests the following procedure has proved its excellence. Cut a "poison" tin into four quarters and put one of them into a glass jar or bottle. Pour in a cupful of warm water, and add a tablespoonful of sugar. Let stand till the sugar is dissolved. Now procure a small bottle—the two ounce ink bottles are most convenient—and fill into it about three-quarters of an ounce of the poisoned mixture. Lastly scoop a shallow hole near the ant's nest and place the bottle in it, laying it on its side. The ants swarm into it, drink the poison and die immediately; the liquid being full of the dead insects. The "stock" poison jar must be kept tightly sealed and well out of the road of meddlers. This is the simplest control for ants that I know of.

An Australian horticultural writer says that the dandelion is the worst pest on lawns in that continent. Judging by my own lawn our particular trouble is the "Ful" dandelion, *Leontodon autumnalis*, L. He has found an infallible remedy for removing these weeds. Make a mixture (he advises) of the following materials:  
1-2 lb. sulphate of iron.  
1-2 lb. sulphate of ammonia.  
10 lb. sand.  
Apply on the lawn at the rate of one single handul to each

## Farmers Gain By Early Cutting Of Hay

Present indications point to an excellent yield of high quality hay in the Maritime Provinces. The crop is maturing early and best returns will be secured by early cutting. Clover is very prevalent and heavy and will be in full bloom by that date in the central section of the Maritimes.

Harvest should start a week earlier than July 1st in Western Nova Scotia and perhaps a week later in Northern New Brunswick. This recommendation is made so that the bulk of the hay will be harvested before it become ripe.

Analyses have been secured of hay cut at different periods during the summer at the Dominion Experimental Farm, Nappan. Clover cut early in July was found to contain 12 per cent protein, 26 per cent fibre and 68 per cent ash. When cut in August the protein content dropped to 10.5 per cent, ash 5 per cent and the fibre increased to 37 per cent. These data alone show the value of cutting this crop as early as possible.

Analyses of timothy hay cut early in July, as compared with a month later, show a drop in protein content from 5.7 to 4.8 per cent, ash and fibre remained almost constant.

A loss of 1 per cent in protein content means a loss of 20 pounds in a ton. This costs, when purchased in oilmeal or fish meal, approximately 5 cents per pound, resulting in a loss of \$1.00 per ton in protein value alone, not considering the lower digestibility due to the increase in fibre content.

The estimated yield of hay in the Maritime Provinces in 1935 was approximately 1,500,000 tons. A large part of this is cut after August 1st, probably 50 per cent at least. If this could be cut in July it would mean a saving of at least \$500,000 in protein value alone.

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## Fertilization Of Pasture

(Experimental Farms Note)

Good pasturage has long been recognized as a real factor in successful farming. Particularly so, where live stock and live stock products from the major source of the income. Experience has shown that there is no other period of the year when the unit cost of production can be maintained at as low an average as when live stock are out on pasture and that when it is a good pasture the net returns are still greater.

Fertilization of pastures has been practised at the Dominion Experimental Farm, Nappan, N. S. for the past fourteen years. Since 1919 definite experiments have been under way to permit a more thorough study of the value of fertilization of pastures, as well as rotating versus continuous pasturing.

The result to date, from the use of a complete fertilizer, have shown a very definite increase in the carrying capacity, furthermore, that this increase is profitably obtained from the use of fertilizer. The result also show that a slightly greater carrying capacity can be secured from rotating the fields, but in some cases this increase may be offset by the increased cost of fencing.

In brief, the carrying capacity, during the past five years, has been as follows:—

Fertilized rotated pasture — 1.79 cows per day per acre  
Fertilized continuously pastured — 1.74 cows per day per acre  
Unfertilized continuously pastured — 1.29 cows per day per acre

The results obtained to date from the small fertilized plots indicate that phosphorus is the element most lacking in our type of soil, which is a medium to heavy clay loam.

Applications of superphosphate have given a decided increase in growth over any other single fertilizer, but a complete fertilizer, containing all three elements, nitrogen, phosphoric acid and potash, has given the most marked increase over untreated plots.

## ANIMAL HUSBANDRY

In the following article we have a very instructive and interesting account of the handling of a breeding and show flock of sheep as narrated by a successful breeder, feeder, and exhibitor of Shropshire sheep.

"The flock year starts in the Fall, which is the breeding season, and also the time when an established flock owner is likely to be disposing of his surplus ewes, consequently this is the best time of year to begin a flock. At this time the ewes may be turned out on the stubble and given the full run of the farm, so they will have an opportunity to chew up the weeds in fence rows and corners.

If the ewes are gaining in condition at the time they are bred there will be a much larger percentage of twin lambs than if they are failing, or an otter should be during this season. A few acres of rape is perhaps the easiest way of assuring this condition, known as flushing.

In most sections of the Western provinces, oat hay or green feed is the most common roughage fed for sheep. With this class of feed a great deal of exercise is necessary, if weak, soft lambs are to be avoided.

If this roughage is supplemented by alfalfa, sweet clover, or mixed hay, the danger of this will be greatly lessened. If the hay supply is limited, it should be fed during the last two months of pregnancy and the green feed reduced as much as possible during these months.

In sections where goats are prevalent, the ewes should be fed potassium iodide, dissolved and mixed with salt, or iodized salt kept before them at all times.

When the lambs are about two weeks old a creep should be provided where they can get grain and other choice feed. Two parts oats and one part each of bran and oilcake is a very good mixture for this purpose. The feed in their trough should be changed at least three times a day, as the lambs like fresh feed and will eat some every time it is changed. A small box containing salt and bone meal in equal quantities, and a small amount of sulphur should be kept in this enclosure, as the lambs seem to require a great deal of salt at this time, the bone meal adds lime, so necessary for growth, and the sulphur has a tonic effect on the whole system.

After the flock goes on grass, the lambs will not eat much grain for a few days, but it is a mistake to discontinue feeding at this time, as they will come back to it. Grain can be made more economically during this period than at any later time in the lamb's life, and it is the ones that catch the early market, which as a rule have the most profit for the producer.

During the Summer months, native or sown grass, or sweet clover pasture, with the run of the summation fallow, will make ideal conditions for them, provided they are not overstocked. It is a great mistake to run too many sheep for the pasture available.

The end of July is usually the critical time of the Summer season, as it is hot and dry, which causes the grass pasture to stop growing, and dry up. A few acres of rape, or a light sowing of rape and oats on part of the Summer fallow, will carry the flock over this trying period without loss of condition.

A good supply of fresh water is very essential during the Summer months if the flock is to be kept in a thrifty and healthy condition. Stagnant water is one of the most prevalent sources of intestinal parasites.

Lambs should be marketed as soon as they reach a weight of about eighty pounds. If they have been well fed, and have no serious setback, they will carry sufficient finish to make ideal carcasses for the retail trade at this time. Then

## GAY'S PLANTS POSTPAID

Flower plants—Aster, Phlox, Petunia, Verbena, Salvia, Kochia, Pansy, Daisy, Snapdragon, Marigold, 25c dozen.

Year old plants, Pansy, Carnation, Delphinium, Foxglove, Canterbury-bell, Columbine, Sweet William, Baby's Breath, 10c each.

VEGETABLE PLANTS—Cabbage 30c per 100. Cauliflower 20c dozen. Late Tomato 30c dozen.

J. J. GAY & SON  
Box 187  
Charlottetown

unfinished lambs should not be sold. It is a flood of such lambs that forces the market to low levels during the Fall. Such lambs should be carried over and finished during the Winter months on the farm, thus spreading the marketing over a greater part of the year, which will have a stabilizing effect upon prices.

The selection and fitting of a show flock is another phase of the business which every sheep man should study if he wishes to make a real success of this line of his farm work. There are two distinct classes which must receive slightly different treatment. The pure-bred, or breeding, class, and the market or mutton class.

When selecting individuals for the pure-bred or breeding class, breed type and character must receive first consideration. It is in the show ring that the correct type of the different breeds should be set, and strictly adhered to, when making the awards. An animal that is oversize, or undersize, for the breed, should not be chosen; nor one that has stubs of horns, black wool, or black fibres running through the fleece, as no sheep with any of these defects, no matter how well fitted and brought out, can hope to win in strong competition.

The feet and legs and carriage of the head and body play a large part in the general appearance of a sheep. One with hanging ears and sluggish action will not make the appeal to a judge that the one which is bright and snappy in its appearance and action will. Any defect of the feet or legs, such as weak pasterns, will become worse when the animal is fitted for show, and with the possible exception of a particularly good individual any having such defects should be discarded when making selections.

The fleece and skin should receive careful consideration. A fine, dense fleece, neatly trimmed, with lots of yolk and bloom in it, will help a great deal in getting to the top in a strong class. The skin should be pink and clear, without dark spots or patches. While the degree of pinkness varies to a considerable extent in the different breeds, a blue or chalky skin should be avoided.

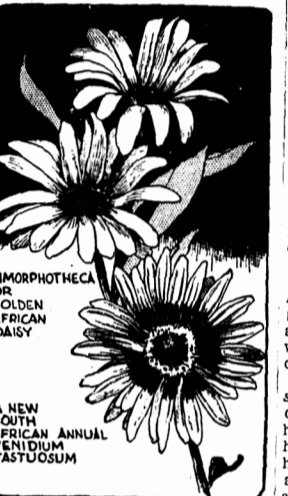
When selecting animals for the market or mutton classes, breed type and quality of fleece will not receive so much consideration, although a nice dense fleece adds greatly to the appearance of the sheep when trimmed. The most important thing is to get a low-down thick body, with a good leg and back, standing on straight legs set well apart, without coarseness of bone or excessive paunchiness, and a short wide head, which usually denotes a good feeder. A good head is a very important item when fitting for these classes. Uniformity is an important feature in group classes, so in making them up, it is well to try to get animals that are as nearly alike as to size, type and color markings as possible.

If the flock is being carried along in good condition, the actual fitting may begin at the time the sheep are sheared, which, if done the middle of March, which will give a nice length of fleece, at the late Summer and Fall shows. The sheep should be clipped bare at this time, as a good fleece cannot be secured by stubble shearing, as it will always have a dead and lustreless appearance. The animals

## Two Sun-Loving Annuals For Late Planting

Brilliant South African Natives Find A Place American Gardens. Give Them Full Sun.

Two annuals of unusual beauty, and amazing resistance to heat are the dimorphotheca and venidium. They are not often grown, probably because their names are hard to remember, but they deserve a place in



## Garden Pests Need Rough Treatment

are usually prepared in a mixture which needs only a dilution of water.

Rotenone, government experts say, is thirty times as powerful as arsenic of lead as a stomach poison, and fifteen times as powerful as nicotine as a contact poison. It is harmless to warm blooded animals, but keep it away from gold fish.

Both pyrethrum and rotenone are inclined to be unstable, which means that they lose their power under certain conditions. In purchasing trade preparations of these materials inquire about this and be assured that your product will not lose its effectiveness before you get a chance to use it.

Nicotine and arsenic are still used in the garden effectively. A pound of arsenic powder to ten pounds of gypsum is probably still the best check of the striped beetle for cucumber and squash vines, or for other caterpillars and beetles. It will burn the leaves, however, if you apply thickly.

Twenty Canadian draught geldings were shipped to Aberdeen, Scotland, via Glasgow from Montreal on May 10. The Glasgow Herald describes the horses as a splendid lot. Five-year olds sold from \$25 (\$260) to \$89 (\$445) and six-year olds from \$37 (\$285) to \$60 (\$300). One horse realized \$93 (\$465).

The number of horse breeders' clubs operating in Canada in 1935 under the club policy of the Live Stock Branch, Dominion Department of Agriculture, is the largest, namely 219 clubs, since the inception of the policy in 1933.

The "Click Beetles" owe their name to their ability, when placed upon their backs, to give a click while springing into the air, then coming down right side up. The family is a very large one, nearly 600 species being found in the United States. I have examined *Corymbes sulcicollis*, *C. cruciatus* and *C. cylindricornis*, and a species of Limonius, which was only identified as to the genus.

The Metallic Wood-boring Beetles have a bronzed glossy surface to their wing-cases and bodies. It is the grubs which damage trees by burrowing immediately beneath the bark. Some of them are orchard pests. In my collection were *Dicerca divaricata*, *D. spreta*, and *D. leucobica*; *Buprestis maculiventris*; and a species of *Chrysobothris* which I could not get identified.

Among the Fireflies or "Lightning Bugs" were: *Eros aurora*, a pretty scarlet insect with reticulated wing covers and underbody black; *Lucifodora atra*; *Elychnia corrusca*; and *Telephorus rotundicollis*.

Of the beetles occurring in stable manure *Aphodius fuscicornis* and *A. fessor* appear to be the commonest. *Prox scaber*, *serica vesperalis* and a species of *Geotrupes* are related, but larger. The remainder of the beetles will form the subject of another note.

Although it is possible to get each of these substances separately, they

any garden, and will be interesting if only for their newness to you.

The venidiums are decent immigrants to this country, having come from South Africa. They grow to a height of 2-2.2 feet, with flowers 4 to 5 inches in diameter rising above the foliage, whose grayish-green color and fuzzy texture is attractive in itself. They are borne on long stout stems, are equally decorative in the garden as in the vase. Seeds should be sown in warm soil with plenty of sun.

Another sparkling flower from the other side of the world is the African golden daisy, or dimorphotheca, one of the loveliest members of the big daisy family. It is interesting for its many blends of color. Sow it in a sunny spot as soon as possible.

The arctotis, or blue-eyed African daisy is another. It is a gray-leaved annual producing an abundance of snowy white daisies with a blue center and blue stains on the reverse of white petals.

Plant these annuals in some hot, sunny spot in your garden where others won't do so well. They make handsome cutting material, but have one drawback—they must have their sleep, and when evening arrives they close their eyes and are useless for evening effects.



The man with the HOE says—

Cardinal climber germinates and grows best in hot weather. For quantity of bloom and fine foliage effects it is difficult to beat.

Thin your candytuft if you want good spikes and plenty of bloom. It won't give good spikes if crowded.

Thin all root crops rigorously. It will pay in better and bigger vegetables.

Let the hoe be your garden putter, brassie and dibble, for half an hour a day, and you will surprise yourself with a weedless garden.

Soak your lawn so that the water penetrates several inches into the soil.

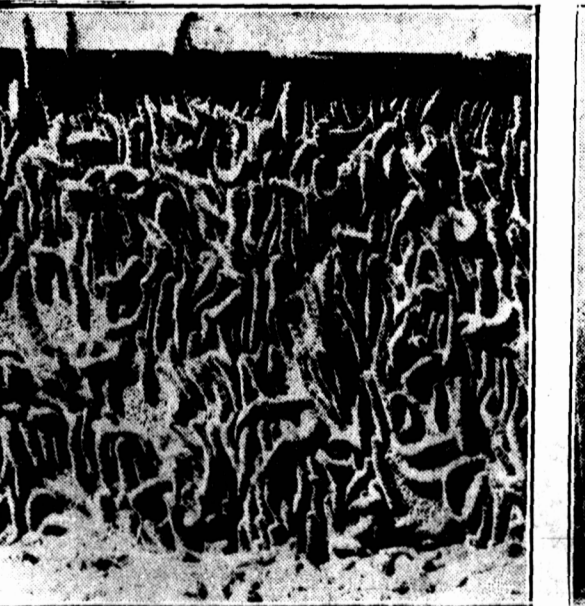
## For Sale

The following used/reconditioned articles:

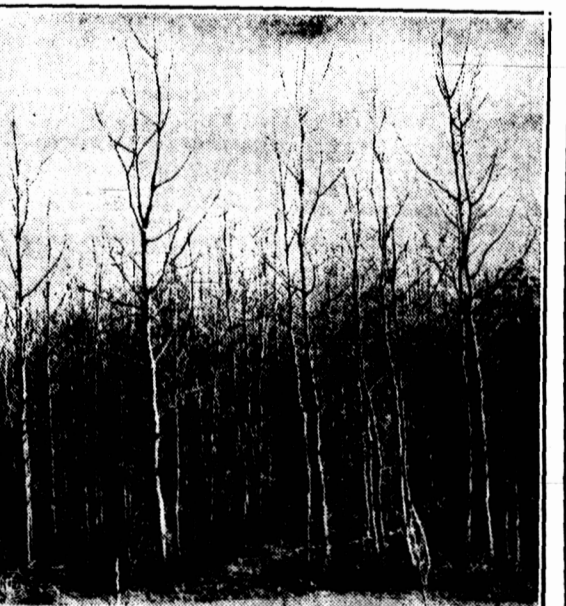
Motor Trucks,  
Tractors,  
Grain Binders,  
Hay Mowers,  
Engines.

SAMUEL KENNEDY,  
134 Kent Street,  
Charlottetown

## Caterpillars' "Hunger March" Ravages Ontario



Crawling in massed millions over an 8000-square mile area in northern Ontario, tent caterpillars are stripping forests of foliage, halting trains, and perilling crops. Here is a remarkable picture of pests on the side of a Lake Penage house.



Hundreds of thousands of trees have been stripped bare on the 175-mile front where Ontarians battle desperately to stay the ravenous hordes, which even rivers fail to halt. This strip of forest shows the devastation in the "army's" wake.



The squirring squire has invaded schools, stores, and homes in its relentless advance. Teachers have allotted regular periods to clear the pests from walls, but they swarm back again. Here a rump pupil is seen sweeping down hundreds.

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