

## The Control Of Mosquitoes In Canada Commented On

Steps Should Be Taken Now To Secure the Proper Results.

By Press and Publicity Division, Department of Agriculture, Ottawa, Ontario.

Now is the time to complete plans and arrangements to combat the mosquito pest. Myriads of tiny eggs of these voracious insects are lying in low places in the fields and woodlands where they were deposited by the female mosquitoes during the summer months. When the spring sunshine melts the snow, pools will form, and these eggs will hatch, giving rise to the small mosquito larvae or "wrigglers" which later transform into the pupae from which the winged adults emerge, and seek out man and animals to suck their blood. When that happens it is too late to do much about it except to swat and curse.

The time to attack mosquitoes is before they emerge from the water. To kill them then is a comparatively simple matter and is based on the fact that mosquito larvae and pupae breathe air through tube-shaped organs which they apply to the water surface. A thin film of oil spread on the water, quickly and effectively destroys them. Petroleum oils are used for this purpose; a light fuel oil is probably most suitable, but other oils such as kerosene or crude oil, providing they spread satisfactorily on the water, are effective. Portable compressed air sprayers may be used to apply the oil, or even garden watering cans, although the latter are rather wasteful. The treatment should be given in late April or early May.

Even more important than spraying, which is purely a temporary measure, is the matter of permanent control by eliminating breeding places. This may be done by draining and filling low places, cleaning out ditches, removing brush from waste land subject to flooding, and similar means.

Mosquitoes, like warbles and bots of cattle and horses, are dealt with most successfully on an organized community basis. The reason for this is that the breeding places of mosquitoes are usually scattered over a wide area. Individual effort is worthwhile, but results from it may be offset to some extent by the migration of mosquitoes from untreated places elsewhere in the vicinity. A number of communities in various parts of Canada have taken organized action against the mosquito nuisance and have secured excellent results at very low cost. It is no longer necessary to tolerate these annoying pests: community action solves the problem. Information and direction as to how to conduct community campaigns may be obtained by writing to the Dominion Entomologist, Dominion Department of Agriculture, Ottawa.

### DAIRYING FIRST

The dairy industry has become the most important branch of agriculture in the United States, notwithstanding the fact that production is almost entirely for domestic consumption, the exports of dairy products being comparatively insignificant. Dairying was the last important branch of agriculture in the United States to suffer from the depression.

### EGG DEMAND

A pleasing feature of the Canadian egg market last year was the active retail demand. Reports from a large number of centres indicated that retail sales of eggs were more active during the summer and spring of 1935 than for some years past.

Help yourself by buying goods made in the Maritimes.

# AGRICULTURE

## NOW IS THE OPPORTUNE TIME TO TAKE STEPS AGAINST HOUSE FLY

### Hints Given On Grass Seed Mixtures For Pasture

Careful Study Carried On By Farm Officials.

By C. F. BAILEY, Dominion Experimental Station, Fredericton, N. B.

A careful study of pasture problems at the Dominion Experimental Farm, Fredericton, has shown that the use of an ordinary hay-seed mixture may be converted into good permanent pasture by proper fertilization and good pasture management. This does not mean that permanent pastures may not be more quickly established by the use of special pasture strains of grasses and legumes, but these are more expensive and the seed is not so readily available at the present time.

Pasture investigations at the Fredericton Experimental Station show quite definitely that a gradual change takes place in the character of the herbage where pastures are properly managed. Annual surveys of experimental pasture plots made for the Fredericton Station by the Division of Botany, Ottawa, show that the more desirable plants are gradually replacing the less desirable ones. For example, in one pasture area, White Dutch clover which was in third position in 1928 is now in first position and makes up 30-35 per cent. of the herbage. Brown top which was in first position, is now in second. Moss which was in fourth position five years ago is now only to be found by search. There are some undesirable plants such as tall buttercups and fall dandelions which occupy practically the same position as they did five years ago, but today can only be found on pasture plots that have remained untreated to serve as checks.

Another pasture experiment at the Fredericton Station begun in 1932 will be of interest in this connection. An area previously summer fallowed was divided into plots and seeded down with five different species of grasses and clovers and five mixtures of grasses and clovers in duplicate. Two additional plots were left unseeded to serve as checks. This experiment has been treated with a complete fertilizer and grazed with cattle each year. Three years' observations of this area show that a gradual change has taken place on all plots. There is every likelihood that the majority of these plots will have much the same stand of plants in a few years. Crested wheat sown alone was winter killed the first year. This plot now has an excellent stand of plants composed as follows: 50 per cent. volunteer white clover, 15 per cent. volunteer brown top, remainder other volunteer grasses and clovers and some weeds. Ground cover 89 per cent.

Two plots that were left unseeded had a fair stand of plants the first year and the herbage at present is as follows: White clover 45 per cent., brown top 7½ per cent., red top 12½ per cent., Kentucky blue 7½ per cent., remainder other volunteer grasses. Ground cover 84½ per cent.

Space will not permit of a complete summary of this very interesting experiment but it should be evident to the reader that either newly seeded or old pastures for the most part will gradually be made to produce an abundance of

### This Insect Is Now Classified as Public Enemy No. 1.

By Press and Publicity Division, Department of Agriculture, Ottawa, Ontario.

With the advent of spring comes the menace of the house fly — which may be correctly be termed Public Enemy No. 1. It is world-wide in distribution and is notorious for the part it plays in spreading such serious disease as typhoid fever, tuberculosis, cholera, dysentery, infantile diarrhoea, and other dangerous epidemics. The fly breeds in filth; infects itself with filth; carries germs of filth and disease on its legs and body and in its intestines; and with these germs pollutes food, especially milk, one of the principal nutritional items in the establishment of the human race.

It is known that a single fly can carry as many as 500,000,000 germs on and inside its body, but, until there is active co-operation on the part of entire communities, including the municipal authorities and every single individual in the community, to remove filth, the main source of fly-production, the menace of the fly to human life will remain.

The most effective and desirable method of controlling the house fly undoubtedly consists in eliminating or reducing its breeding places to a minimum by properly treating or disposing of such materials as manure and garbage. The house fly breeds in such decaying and fermenting matter as kitchen refuse and garbage. Garbage receptacles should be kept tightly covered and where possible all refuse should be burned or buried at once or without undue delay. If it cannot be dispensed with, refuse should never be left exposed but sprinkled with powdered borax or chloride of lime. Windows and doors of houses, particularly those of the dining room and kitchen should be screened and all flies that gain entrance destroyed. This may be done by the use of fly swatters, by tanglefoot strips, or by using fly spray. Milk and other food should be screened in the summer by covering it with muslin and fruit should also be covered. On no account should flies be permitted in a sick room, and the faces of sleeping babies, or babies lying unattended in their cots or cribs, should be screened with muslin.

An effective poison bait, but one which cannot be used where children are exploring or romping about, is made by exposing in saucers a mixture of one teaspoonful of formalin in a cupful of sweetened milk or water. Fly sprays, of course, operate best in closed spaces, and the dead or paralyzed flies should be swept up and burned, or thrown into very hot water to prevent any from recovering.

desirable grasses and clovers if proper methods of fertilization and management are adopted.

### PEDIGREE CERTIFICATES

Pedigree certificates registered by the Canadian National Livestock Records, approved by the Dominion Minister of Agriculture, during the month of March, 1936, included 217 horses; 2,679 cattle; 364 sheep; 526 swine; 2,777 foxes; 571 dogs; 161 poultry, and 4 goats — total 7,299.

### DAIRY PRODUCTS INCREASE

Creamery butter, farm-made cheese, factory cheese and miscellaneous dairy products in Canada in 1935 all registered some increase in production.

## Proper Growing of Roses Depends on Care in Planting

Most Catalogues Carry Instructions For Amateurs.

By WILLIAM GODFREY, Dominion Experimental Station, Morden, Manitoba.

The successful establishment of a rose plant in a new position depends to a large extent on the observance of a few important details of planting. Most rose catalogues carry instructions for the guidance of customers, but this advice is not generally available to those who purchase their plants from the department stores of our larger cities. Observation of some of these plants badly set has prompted this article.

Plants from the above source, or those obtained from a distant nursery, are immensely benefitted by being immersed in deep water as soon as received. From 12 to 24 hours is enough. If the ground is then unfit for planting, they should be placed in shallow trenches and completely covered with damp soil, making it firm about the roots and comparatively loose over the branches.

During planting and at all times the roots must be protected from prolonged periods of exposure to sun and air. At the Morden Experimental Station a large tub of water placed in a central position takes care of the plants in bulk and a pail is used to carry a few at a time to where they are needed.

The hole for the reception of the roots of rose plants should be wide enough to allow them to be spread to their greatest extent, and a little deeper than seems necessary. This extra depth enables the planter to place the plant in its proper position by shaking it during the process of filling in the hole, allowing the soil to flow beneath and among the roots until the plant rests at the required level. When the filling in is completed and trodden firmly, the crown, or that point of the plant from which the branches radiate, should be two inches below the surface. The roses are then pruned by removing all weak growth and cutting back the stronger branches to within six inches of the ground. The cut being made one-half inch above a bud pointing outwards or away from the plant centre.

## DRUGS For The FARM

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|                                  |         |     |
|----------------------------------|---------|-----|
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| Blue Vitriol, lb                 |         | 25c |
| Epsom Salts                      | 5lb for | 25c |
| Fowler's Solution, 16 oz. bottle |         | 50c |
| Flaxseed                         | 2lb for | 25c |
| Foenugrek, lb                    |         | 40c |
| Glycerine, 16 oz                 |         | 55c |
| Glauber Salt, lb                 |         | 20c |

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## WASSONS DRUG STORES

## Cost Of Fuel For Brooding Chicks Is Commented On

The Kind of Fuel and Type of Building Chief Factors.

By R. M. HOPPER, Dominion Experimental Farm, Brandon, Manitoba.

The main item of cost in brooding early hatched chicks is for fuel used in maintaining the required temperature. The kind of fuel used and the construction of the building are the main factors influencing this cost. It is not economical to use a poorly constructed building or too low a grade of fuel for brooding purposes. When such equipment is used, uneven temperatures usually result in heavy losses of young chicks. The brooder house should be double boarded and well insulated, the ceiling tightly boarded to avoid unnecessary loss of heat and the building well banked to prevent floor drafts. Banking of walls is particularly necessary when buildings are equipped with wood floors.

With coal stove brooders, and using hard nut coal costing \$20 per ton, the average daily fuel cost at the Experimental Farm, Brandon, during the seasons of 1934 and 1935 was 15 cents per brooder per day. During these two years the minimum temperatures reached four below zero and 20 below zero respectively during the two brooding seasons.

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