Soils and Crops

Address communications to Agronomist, 73 Adelaide St. West, Toronto

KEEP RATS HUNGRY.

The number of rats in a place is always in direct proportion to the available food supply. If a farm, a house or a barn is overrun with rats, it is evidence that some one is generous with rat food.

Well-fed rats multiply rapidly and always increase to the utmost limit of the available food. If the daily rat rations will support only twenty lean rats, there will be no more, and no fewer, rats in that place. When the number exceeds the food supply, their ill-nourished bodies fail to reproduce, and disease takes a heavy toll of them. That is true of all animals, including man. You cannot in any circumstances raise more fish in a pond than the food there will feed.

A farmer noticed that during the summer there were very few rats round the barns, and that even they had hard picking to live. The granary was rat-proof. The chickens got no more than they could eat in a hurry. A few rats survived by foraging in the fields and garden. But soon after the big mows were stored with unthreshed wheat the rats began to come. It was early winter before a thresher was available, and by that time the barn was alive with rats—hundreds of rats, big rats and little rats, brown ones and gray ones. You could hear them squealing and scrambling in the straw. They ran boldly round under foot. A few months later a well-fed rat was hard to find. The few that the farmer trapped made little difference, but the threshers came and beat out the grain, the straw was sold and hauled away, the wheat was locked in the granary.

Beyond question rats will migrate. That farmer's rats had to move or starve; so one dark night they just went away, no one knows where, but most certainly to some place where they could get food.

The moral is that, if you keep rats hungry, you can keep them scarce. A hungry rat is easy to trap, a famished rat takes poisoned bread with a gusto; so the best way to get rid of rats is not to have any.

Keep every bit of rat food securely covered. Put the chicken feed into tin boxes or iron barrels and keep the covers down. Feed the chickens, not the rats. In other words, feed the chickens no more than they will clean up. Nothing encourages rats more than grain scattered over the chicken-house floor and left over night. Dispose of kitchen garbage by feeding it to stock or to chickens or by burning it. A garbage pile behind the house or barn will feed many rats. Granary and corn crib should be rat proof. Do not store grain in the straw any longer than necessary. Protect the horse grain boxes so that rats cannot rob your animals. Bold rats have been known to drive a horse away from his grain.

Trapping rats is no easy matter, especially when they are well fed. Poison is always dangerous. The rats have an uncanny way of carrying the poison-soaked bread round and leaving it where the dog or the cat can get it. Poison-soaked grain is best, if you must use poison, and it should be put under the floors and in the partitions where nothing else except rats and mice can get to it.

A steel spring "snap down" deadfall rat trap is very efficient. Bait it with a piece of meat. As every keeper of chickens can testify, rats are meat eaters when they can get meat. If the deadfall fails, try a common steel trap buried just out of sight in a pan of corn meal or ground feed. Be sure the trap is well oiled and springs easily.

HOME USE OF DAIRY PRODUCTS.

I was in a farm home recently where the farmer and his wife, their family of four children and two hired men, use from eight to twelve quarts of whole milk a day. They keep Holstein cattle and the chief source of income on their farm is from the sale of butter-fat.

"We all drink milk," said the mother, "and I use plenty of milk in cooking. There are a great many dishes which can be made with milk and I know there is no healthier nor better food than milk."

When I hear farmers talking about impending oversupply of dairy products, I wonder what those particular farmers are doing toward improving their own markets by using plenty of dairy products in their own homes.

A buttermaker of a creamery in a community that uses a large amount of creamery butter said to me recently, "I am glad to say that the patrons of this creamery use lots of their own product. That is as it should be. If there is anyone who can afford to use plenty of good creamery butter, it is the farmer who produces it."

POULTRY.

If a new brooder house is to be built its size should be determined by the size of flock one is most likely to want to start in it. Other factors which must also be considered in determining size are portability and convenience for doing the necessary work inside the house.

A house larger than 10x12 feet is not easily moved, and on most farms would be undesirable for this reason. One smaller than 8x8 feet isn't satisfactory either.

An 8x12, 10x10, or 10x12 colony house built on skids, will be found suitable under a wide variety of conditions. The chick capacity of such a house will run from 300 as optimum for the smallest size mentioned to 600 as the absolute maximum for the large size.

On farms where chicks are hatched in incubators, or where day-old chicks are purchased each season, there is no use for the broody hen. She becomes more or less of a nuisance.

Unless wanted for hatching chicks, broody hens should be removed from the nests whenever found and placed in a slat-bottom or wire-bottom coop with no nesting material. They should be supplied with water and dry mash if it is desired to have them lay again as quickly as possible.

Three or four days of this confinement will usually be sufficient to discourage the broody tendency and the hens may then be released. From the labor standpoint there is an advantage in having the broody coop in the hen house where it is convenient to shut up the delinquents.

Furthermore, they will become active when the flock is fed and will thus be induced to eat more feed than might otherwise be the case. The result is that they lose little weight and start laying again within a short time.

In very warm weather it is often advisable to place the broody coop in a shady spot outside the henhouse in order to keep the broodies more comfortable.

HOGS

Not long ago a farmer penned up a sow which was soon due to farrow. Before she was placed in the farrowing quarters she was accustomed to sleeping around the straw pile.

It was considerably against her desire to enter the pen, but she was forced to go into the quarters with which she was unfamiliar.

For a long time she was unsettled and tore about frantically seeking an exit. All of this was brought about just on the eve of farrowing. Even after farrowing she was still restless. During the farrowing she trampled several of the pigs to death.

The mistake this farmer made was because he did not accustom the sow to her quarters a week or so in advance of the farrowing date. Hogs, and especially mother sows, usually become very fond of regular quarters. In such quarters they are much more quiet than when confined to a strange place.

Without a doubt the sow's condition of mind has much to do with the ease of farrowing and the success of the litter after farrowing.

Ontario's Production of Beef.

During the year ending December 31st, 1919, there was marketed through the Union Stock Yards at West Toronto 333,225 cattle. Of these 183,323 were graded as "good," while 149,902 or 45% graded as "common." There is not included in this 62,000 calves which were marketed as veal and which could not readily be graded on a beef basis, as many of them would be calves from strictly dairy cows which there never was any intention of making into beef at maturity. Nor does it take into account 31,000 canners and cutters, as the animals marketed under this heading were very largely discarded dairy cows which were not bred with the object of producing beef, and therefore should not be considered in this connection.

The average weight of the cattle grading "good" was approximately 1,050 lbs. and the average price at which they were sold $12.50 per cwt. The total value, $24,061,143.75, or an average price per animal of $131.25.

The average weight of the cattle grading "common" was 850 lbs., and the average price $9.40 per cwt. The total $12,977,196.80, or an average price per animal of $79.90.

It will be noted that there is a difference between the price realized upon the cattle graded as "good" and those graded as "common" of $51.35 per head. In other words, if all of the cattle marketed at the Toronto Stock Yards in 1919 had graded "good" instead of grading as "common," they would have been worth $7,697,467.70 more than they were.

As only about one third of the beef cattle of the province are marketed through the Toronto Stock Yards, Ontario's total loss through the use of poor beef sires would be over $20,000,000.00.

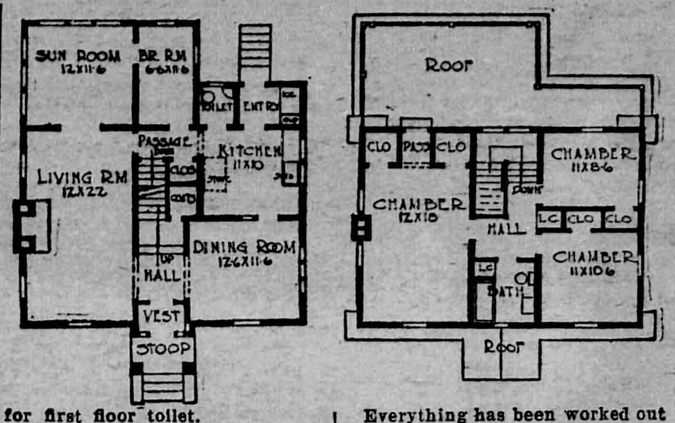
Butter made from whole milk instead of cream is inferior to butter made as it should be. On farms where only a few cows are milked, it may pay in the long run to buy a separator.

Sow sweet clover right along with the small grain, or immediately thereafter. A great soil builder, sweet clover is.

The optimist is the man who believes all eggs will hatch.

A DUTCH COLONIAL HOME

DESIGNED BY W. W. PURDY



There is perhaps no other type of home which has proved so popular in the last few years as that of the Dutch Colonial. In the plan here illustrated, the center hall has been reduced to the minimum. This home, planned for a corner lot somewhat lower in the rear, and in order that the owner might take advantage of this, the garage was placed under the sun-room. In doing this, however, it was necessary to raise the house somewhat higher off the ground than usual. In order to overcome this, a small terrace was provided for across the entire front. The small stoop has been slightly projected in order to provide for a vestibule and the stairway landing and still leave room for an arched opening between the hall and dining room, similar to that of the hall and living room.

Interesting features in this plan are the passage from the kitchen and living room, which open direct into a fair sized breakfast room. French doors also lead from the living room into the sun-room. In addition to the rear entry, there is also provided space for first floor toilet.

On the second floor there are two fair sized chambers and a large owner's chamber with two closets. The passageway to the rear deck, which provides space for airing bedding, etc., is an interesting feature.

The basement contains the usual storage and laundry as well as furnace rooms and garage.

Everything has been worked out along Colonial lines, both inside and out: Red Colonial brick has been used in the foundation walls above grade. White siding has been used on the outside, with green blinds and green shingles.

It is estimated that this home can be built, exclusive of heating and plumbing, for from $6,250 to $8,500.

The Fragrant Garden.

Someone has said that we are fast drifting toward an age of flowers that will have no fragrance, and this is accounted for by the keen desire of growers to produce larger flowers. No profusion of blossoms, no exquisite coloring or beauty of form can compensate for a lack of fragrance with most flower lovers. How disappointed we feel when shown a rose of rare coloring and perfect form to find that its satin petals yield no perfume. One may tire of brilliant, showy flowers, but the sweet-smelling, old-fashioned ones will never lack appreciation. No quality in flowers strikes the chord of remembrance with so true a touch of fragrance. When the rose is mentioned, we at once associate it with sweetness. We love flowers for their fragrance even though they are not very beautiful, but when they are fragrant as well as beautiful our enthusiasm knows no bounds. Plant the old-fashioned fragrant flowers even though the catalogues tell you wonderful tales of the beauties of the newer ones of immense size. The smaller flowers have usually the sweetest perfume.

Sweet peas, mignonette, stocks, heliotrope, carnation, lilies, pansies, lily of the valley, lilacs, honeysuckle, and roses, are deliciously frangrant. Some very beautiful roses are not, but the following are fragrant and beautiful: Frank W. Dunlop, Madam Butterfly, Gruss au Teplitz, Sunburst, America, Hoosier Beauty, Columbia, Paul Neyron, Mme. Edouard Herriot, Mde. Ravary. These are only a few of the fragrant roses, but it is a good list to plant when beginning. The charm of these will urge you to increase your list.—Jeanette Leader.

Suppression of the Cutworm.

The cutworm is no respecter of plant, soil or district. Its suppression is therefore a necessity everywhere, and the method recommended by the Dominion Entomologist is by poisoned bait composed as follows: 20 pounds of bran and half a pound of Paris green well mixed in a wash tub while dry; a quart of molasses dissolved in two or three gallons of water and the bran and poison thoroughly dampened therewith. For small gardens can be used a quart of bran, a teaspoonful of Paris green and a tablespoonful of molasses with sufficient water to thoroughly moisten the bran. Shorts or middlings in place of bran can be used. In gardens containing rows of vegetables, advises the Entomologist, the mixture should be scattered thinly along on either side as soon as cutworm injury is noticed. Flowering plants can be protected by placing a small quantity of the poisoned bran around, but not touching, each plant. The bran should be scattered after sundown so that it will attract the pest when it comes out to feed at night. In small gardens, when cutworm injury is noticed, the worm can generally be located about an inch below the soil and within a few inches of the plant so that it can be destroyed by hand.

The crop of a week-old chick holds less than a teaspoonful of food. If filled at sunset the crop will be empty long before sunrise. Hunger for an hour is apt to cost a day's growth.

Home Education

"The Child's First School Is the Family."—Froebel.

Jaunts With Our Children —By Edith Riland Cross

Do you ever enjoy a jaunt in the woods with your children? And do you share an interest with them in the things of nature, in God's great out-of-doors? If not, you should remember that parents, living in rural communities where there are no kindergarten, can give their children much they would get in a city kindergarten by taking frequent trips with them. One of the greatest purposes of the kindergarten is to awaken the child's observation, to acquaint him, and to teach him his relationship to the people with whom he associates. Nature lessons serve this purpose.

First help your children to know the many land and water birds. Keep a list from year to year of the birds seen and the dates on which they appeared each spring. A bird guide and a small pair of field glasses are helpful on a field trip. Teach the children to know the songs of the birds, too, by taking them just at dusk to listen to their calls.

If these calls are translated into words the children can more easily distinguish one from another. From childhood I remember that the brown thrasher says, "What would you give me for my tail, my tail? A sixpence, a sixpence. 'Tain't enuf, 'tain't enuf. A shilling, a shilling. Cut it off—cut it off. Tr-r-r-r-r-r- (the saw)." The meadowlark says, "Teakettle, tea in the teakettle." Kildeers, phoebes, and chickadees say their own names. The robin says, "Cheer up cheerily."

Birds' nests should likewise be studied and the kinds of places chosen by the different birds for their homes. Instill through such knowledge a desire on the part of the child to protect the birds and their homes, and thus further the work of our bird protective societies.

Along with the birds, study flowers and trees. Let the children have a wild flower garden at home and teach them how to transplant it from the woods and tend it. In this way have them become familiar with twenty-five or thirty of our most common wild flowers and trees. A good flower guide would be serviceable.

An added joy to the wood trip is, of course, the picnic lunch. How the children love to help build the fire and cook the meal! And don't you love the freedom of it, too? There is no better time to become real pals with your children than when close to nature.

On a jaunt it is always a splendid idea to gather specimens to bring home. The children sometimes busy themselves for days making things from their collections. Each specimen has its story to tell, and this further contact more clearly impresses the characteristics upon the child's mind.

Aside from the purely educative purposes of our jaunts, I would far rather have my children remember, when they are grown, that mother could almost always take time to go to the creek with them than have them remember whether or not my house was always dusted and ready for callers.

Above all help the children realize that back of the wonders of nature which they see there is a kind Heavenly Father watching over each and every thing Whom we must glorify for these great blessings.

Tonsils.

The tonsils are small bodies that hang at either side of the back of the throat. When they are in a state of health, we are not aware of them, but when unhealthy, as they too often are, they can cause much discomfort and suffering. The mouth and throat are constantly occupied by all sorts of organisms that, generally speaking, are quiescent, but that often conspire and give great trouble, and the tonsils naturally come in for their share.

In sore throat, for example, the brunt of the attack may fall upon the tonsils, and then we have what is called tonsilitis. The tonsils become inflamed and enlarged, and swallowing is exquisitely painful; there is also fever, a poisoned condition of the system and all the other accompaniments of sore throat. Although the fever of an attack of tonsilitis seldom lasts more than a day or two, the result is generally weakening, probably because there is no way to keep the poisonous products from entering the general system. When anyone suffers with repeated attacks of tonsilitis the small crypts or pockets that chiefly characterize the tonsils become enlarged and give shelter to all sorts of harmful material, which not only affects the health by being absorbed into the system but also gives rise to permanent bad breath.

Quinsy is an exquisitely painful affection of the tonsils and of the surrounding parts. It is generally a suppuration of the tissues round the tonsils, and its terrible pain is caused largely by the swelling of the parts—a condition that not only makes swallowing a torture but also makes the patient feel as if he were about to suffocate. As soon as the abscess of a quinsy is ripe it should be opened by the surgeon; in that way the sufferer may be saved two or three days of agony.

Some people have tonsils that are naturally too large, and enlargment of the tonsils sometimes runs in families. Diseased teeth discharging their germs into the saliva often spread their infection to the tonsils, or infection may be carried to them through inhaled dust. Enlarged septic tonsils or tonsils that are always giving rise to trouble in one form or another should come out. There is no minor operation that is followed by more joyous results than the removal of the wrong sort of tonsils.

A Queer Love Token.

Near one entrance of the great cathedral of Seville hangs a patched and painted crocodile, which once served as a princely love token that failed in its mission. In 1260 it was sent by the sultan of Egypt to a beautiful princess in Spain, who declined a suitor whose first present could scarcely be said to speak of affection.

THE CHARM OF THE EVERGREEN

Evergreen trees of the various varieties cultivated for landscape decoration give a feeling of richness, particularly for large grounds. They require, however, more thoughtful care in placing than do deciduous trees and shrubs. They have the important value of presenting a striking appearance at all seasons of the year. In the winter months, contrasted with the white of snow and the grey of leafless twigs, the dark green of the conifers suggest warmth and cheer. In summer their heavy green and solid appearance against the paler leafage of deciduous trees present a fine contrast. A natural grove of spruce, firs, pines, and cedars present a picturesque appearance. The study of one of these is often a help in arranging a planting plan. Even with such assistance, skill is needed to set out even a dozen conifers. Too great a variety is seldom as satisfactory as two or three species presenting diversified contrast in shapes. The more numerous the species, however, the greater the diversity in skyline and composition. Conifer evergreens are the deep tones of the pictures of out of doors. As contrast to a background of buildings, low foreground or horticultural adjunct the shadows they cast have great decorating value.

Too many evergreens make the picture too dark and dismal. Use of the lighter shades of green will help to offset this difficulty as the selection of white pine instead of Norway spruce near a dwelling. In the grouping of the various conifers care should therefore be taken to avoid the intense forms of color. One needs space to adopt the evergreen as a decorative feature. In small areas one conifer can dominate the scene or a group of a few can be the central figure of a large planting. It is well in either case to lay out a planting plan, choosing carefully of the varieties to be set out and to make their arrangements fit into though not mixed with deciduous varieties of trees and shrubs. For best effects it is most satisfactory to keep to two types of vegetation, quite or nearly apart except when definite differences of vegetation are desirable in order to work out a plan calculated to improve the picture through the inequality of light and shade. There are many types of decorative evergreens in cultivation, but the spiry sorts as Irish juniper or yew are particularly useful as accents in the formal garden. With these and the spruces, pines, arbor vitaes the student of planting has an interesting field to work on. Good staging, however, is of the utmost importance and when well done will give a home an enviable distinction and charm.

The choice of suitable varieties of evergreens for the planting of the home grounds is a matter for very careful consideration. Some of the many varieties available on the market are more suitable than others for the climate and soil of this country. Both Macdonald College at Ste. Anne de Bellevue, near Montreal, and the Ontario Agricultural College at Guelph, have had wide experience in the use of various varieties of evergreens for campus planting. The lists recommended by these two institutions do not differ widely. Together they include the following: Globe Cedar, Thuja occ. globosa; Globe Ware's Cedar, Thuja occ. globosa Warreana; Oriental Pyramid Cedar, Thuja Orientalis ibota pyramidalis; Virginia Juniper, or Red Cedar, Juniperus virginiana; Swiss Juniper, Juniperus suesica; Savins Juniper, Juniperus sabina; Prostrate Juniper, Juniperus prostrata; Dwarf Mountain Pine, Pinus mugho; Japanese Cypress, Retinospora plumosa filifera; Japanese Cypress, Retinospora plumosa; Canadian Yew, Taxus canadensis; Japanese Yew, Taxus cuspidata.

Some of these varieties, beautiful as they are, may, if left to themselves, become too large for the space they are planted to occupy. Any of them, however, may be kept dwarf by systematic pruning. This, however, should not be done later than July and preferably in the month of June.—Canadian Horticultural Council.

Graft.

At grafting, John Brown knew his stuff,
Results he got were great.
But nothing pleased him well enough,
He always tempted Fate.

With some new idea. But at last
He reached his life's one goal.
Now wealth and fortune he's amassed,
A blessing on his soul.

He took his flivver, made of tin,
And grafted it, by hand,
To his peach tree. Brains always win.
His peaches now grow canned.

—W. A.

There are some men that simply can't be persuaded to go calling, and are always too busy to attend a party or social gathering of any kind because they can't possibly leave the farm. But when the Dairy Show or the National Exhibition come along they can spare an awful lot of time, and the farm doesn't seem to need them at all.