

RIDDING GARDEN OF RODENT FOES

Four-Footed Pests Work Mainly at Night or in Subterranean Storage Places.

LIST OF FUR-COATED FOES

Brown Rat and Mouse Are Most Destructive—Little Animals Not Always Found in One Place or Under Similar Conditions.

(Prepared by the United States Department of Agriculture.)

Of all the pests with which gardeners have to contend, the fur-coated ones are often the most baffling. Weeds can be kept down by cultivation. Destructive insects usually work by daylight. There is little doubt as to where they are or what they are doing. Four-footed pests, on the other hand, work mainly at night or underground, are wary and agile, and, in consequence, are particularly difficult to apprehend. Unless the man with the hoe is familiar with the signs and habits of the destructive quadrupeds, he wonders what became of the seeds he planted.

Among the native American animals which invade gardens are raccoons, woodchucks, ground squirrels, prairie dogs, rabbits, rats, mice, moles, and pocket gophers. To this list specialists of the United States department of agriculture add a few emigrants from the old world, notably the brown rat and the house mouse, the two most destructive animal pests in the world. Fortunately, these rascals are not all found in one place or under the same conditions.

May Kill Woodchucks in Burrows. The woodchuck or ground-hog devours a wide variety of garden products; it is especially fond of bean vines. It may be caught in a steel trap set at the entrance of its den. When in a burrow it may be killed there by an ounce and a half of carbon disulphid absorbed in cotton



The Mole is Just One of the Rodents the Gardener Must Keep Out.

waste, or by an ounce of blasting powder in a bottle exploded by means of a fuse, all entrances to the burrow being closed in either case before the gases are liberated.

In the Mississippi valley and to the westward there are prairie dogs and many kinds of ground squirrels destructive to seeds, fruits and green vegetation. They may be caught in steel traps set at the entrance to their burrows or where their runways lead through a fence.

Raccoons destroy corn in the roasting ear stage and have a curiously artistic habit of removing the edible part of a melon through a hole in the rind the size of a silver dollar. They may be caught in steel traps carefully covered and baited with meat or fish, or may be hunted with dogs at night. Rabbits attack bean vines, many vegetables, berry bushes, and the bark of young fruit trees. They may be kept out of a garden by a fence built of 1 1/2-inch poultry netting, extending 2 inches below the surface of the ground and 2 feet above it.

Moles eat but little vegetable food, but they are disliked in gardens because their burrows often follow the drills in which young vegetables are growing, causing the roots to wither and die. Worse than this is the fact that their tunnels are thoroughfares for mice which destroy seeds, potatoes, sweet potatoes and other vegetables. Moles are caught in traps especially designed for the purpose. Their skins are valuable as fur, and find a ready sale.

Mice Favored by Trash. Native rats and mice are outdoor animals at all seasons. Many house rats and mice join them in summer. All of them feed on seeds and several of them destroy bulbs, tubers, root crops and young trees. They may be caught in traps baited with nut meats or rolled oats. Those making runways may be caught in an unbaited trap set so they will touch the pan in passing. A useful poison for rats and mice may be prepared by mixing a quart of moist oatmeal with one-sixteenth of an ounce of powdered strychnine alkaloid.

Pocket gophers maintain an elaborate system of tunnels in the earth, which they are continually extending. They are voracious feeders and store quantities of potatoes, roots and seeds for winter use. They may be caught by opening the end of a burrow where soil has been thrown out and setting in it a gopher trap. They can be poisoned by placing in their burrows small pieces of fresh sweet potato or parsnip coated with powdered strychnine alkaloid, the proportion being one-eighth of an ounce of strychnine to four quarts of the bait.

Farmers' Bulletin 670, "Field Mice as Farm and Orchard Pests;" 707, "Cottontail Rabbits in Relation to Trees and Farm Crops;" and 932, "Rodent Pests on the Farm," contain full directions for combating these animals.

TALL FESCUE GRASS HAS ITS ADVANTAGES

Produces More Feed Than the Common Meadow Variety.

Only Apparent Objection to It Is That It Does Not Produce Seed Abundantly—Good Plan to Sow After Wheat or Oats.

(Prepared by the United States Department of Agriculture.)

Tall fescue, an upright, perennial grass, has advantages over the more commonly grown meadow fescue, which it resembles closely. Tests with the two grasses conducted by the United States department of agriculture indicate that the tall fescue produces more feed and is in general more hardy or robust. It does not appear to be susceptible to attacks of oat smut, which frequently damages the seed crop of the meadow fescue in Kansas, Nebraska and Missouri. While somewhat coarser it appears to be equally palatable and nutritious. Apparently the only objection to it is that it does not produce seed as abundantly as the meadow fescue, and the principal reason why it is not more generally grown is the high price of the seed. Because the seed is scarce and expensive it is frequently poor in quality, which is accountable for the difficulty experienced by some growers in getting a good stand.

Tall fescue has the undesirable habit of ripening its seed very unevenly, and this fault, with the fact that it sends up few seed-producing stems, makes the yield light. Fields in northeastern Kansas which ordinarily yield 12 to 18 bushels of meadow fescue seed produce only three to seven bushels an acre of tall fescue. Tests at Pullman, Wash., indicate that in eastern Washington seed can be produced more successfully than in eastern Kansas. Planted in rows 18 inches apart and cultivated, yields as high as 24 bushels an acre have been obtained.

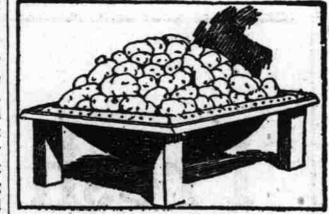
In eastern Kansas and Missouri fall seeding of tall fescue seems to give the best results, but in sections where the winters are more severe, and where there is considerable freezing and thawing, causing the ground to heave badly, spring seeding is preferable. It is a good practice to sow on ground that has been previously in wheat or oats and which has been plowed in July or early August. Tall fescue is also sown successfully in fall wheat or rye. Seed may be sown either broadcast or with a press drill, the latter method giving the best results. When a drill is used it is well to sow one-half of the seed each way, so as to cover the ground more evenly. A perfect stand is sometimes secured with about fifteen pounds of seed an acre, but 20 to 25 pounds are recommended under most conditions.

When the meadow is intended primarily as a hay crop the grass is cut with a mower just as it is coming into bloom. The processes of curing and stacking are similar to those for timothy and other hay grasses. In harvesting the seed crop the grass must be cut as soon as it begins to take on a yellowish color, otherwise considerable seed will be lost through shattering. It is cut with a grain binder and placed in small shocks to cure, and the thrashing ordinarily is done directly from the shocks in the field. An ordinary grain separator can be used for thrashing by cutting off most of the blast from the fan. Special screens are of value, but are not necessary, as a wheat riddle does fairly satisfactory work.

POTATO BIN IS VENTILATING

Material Required Includes Four Strong Sticks, a Discarded Frame and Gunny Sack.

To make this bin four sticks of fire wood, or other similar material are required for supports, and a discarded picture frame and a gunny sack. The sack is taken apart to form



Gunny Sack Supported on a Frame Mounted on Posts for a Simple Ventilating Potato Bin.

one thickness and tacked to the frame. The texture of the material is sufficiently open to allow plenty of good ventilation. If no picture frame is at hand make a frame of 2 by 4-in. stock.—Edward R. Smith, in Popular Science Monthly.

KEEP SHARP WATCH FOR CATS

Poultryman Must Keep Up Fight Against Furred and Feathered Chicken Thieves.

Look out for hawks, foxes, cats and other marauders at this season. You will need to wage war all the time against the furred and feathered chicken thieves. Foxes and hawks are particularly plenty and bold in some sections. The hawk, especially the little bullet hawk, will do away with a lot of little chicks.

FAIRM STOCK

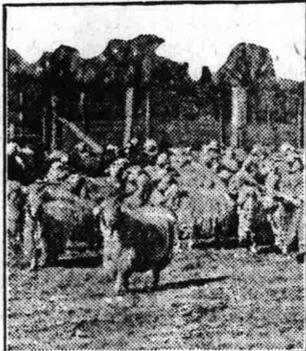
PLAN OF GRAZING FOR GOATS

Give Vegetation Opportunity to Grow by Dividing Range on Which Animals Forage.

(Prepared by the United States Department of Agriculture.)

The production of more mohair and meat can be obtained in raising goats on the range by following a plan of grazing which will give the vegetation a chance to grow sufficiently to maintain itself. Most goat ranges are used throughout the year. This and the general practice of driving the goats out from a corral at the ranch headquarters and back every day for months or throughout the year have been largely responsible for deterioration of the range. An excellent method of giving the forage a proper opportunity for growth is to divide the range into three areas—one for spring, another for summer and fall, and a third for winter.

The number and distribution of the goats on these divisions should be such



A Flock of Angora Goats on a Texas Ranch.

as to secure proper and uniform utilization of the forage. The divisions should be protected from grazing except during the seasons determined upon. On successive parts of the summer and fall range grazing should be deferred until after seed maturity of the forage plants so as to insure proper revegetation. On winter range the forage close to the sheds should be reserved for stormy periods only.

The old practice of bedding the goats on the same bed ground every night in the year prevents proper management of the range and results in overgrazing, in uneven utilization of the forage and general depreciation of the range. This in turn has a bad effect on the condition of goats and the production of meat and mohair. The use of many bed grounds widely distributed over the range aids materially in improving the quality and quantity of the forage, reducing the trailing and driving of the goats, and securing better growth of goats and mohair. The ideal system is to bed the goats wherever night overtakes them, and it is this system, called the "bedding-out" system, that growers of goats are urged to adopt whatever practicable.

The bedding-out system cannot be strictly adhered to during kidding, during periods of stormy winter weather, nor just after shearing; but its use at other times is practicable and it has many advantages.

Range to be suitable for goats should possess a mixture of browse, grasses, and weeds, be free from continued heavy rains and snows, and be well supplied with bed grounds and watering places. Browse furnishes most of the range feed for goats throughout the year, so that it should be abundant. Grass and weeds are necessary for does and kids during the spring and summer, and are of considerable value at all times to give variety to the forage.

Plenty of fresh palatable feed has a marked beneficial effect on mohair production, growth of the goats, and the proportion of kids raised. It also reduces the proportion of losses. Therefore, instead of overstocking a range with inferior goats, the producer should stock it with the number of high-grade goats which it can conservatively carry.

The range goat should be the large, well-built, early maturing Angora, producing a large quantity of fine mohair. The body and chest should be relatively broad and deep, the back wide and straight, the thighs full, the ribs well sprung, and the legs short, strong, and set wide apart. Such Angoras make possible a substantial revenue from two sources—mohair and meat.

The does should be uniform, of good size, have good constitutions, be good producers of mohair, and should produce sufficient milk to insure proper growth of their kids. The bucks should more nearly approximate the ideal than the does. They should be large and vigorous and should produce a large quantity of high-quality mohair. Only those wethers which produce a very large quantity of fine mohair should be retained in the herd after they are two years old.

Most Popular Hog.

The butcher hog, weighing between 200 and 250 pounds is the most popular with the packing companies because it furnishes everything that is desirable in meat, and consequently will command a higher price.

ORCHARD GLEANINGS

WATCH FOR IMPORTED PESTS

Little Excuse for Passing Stock Infested With Egg Masses of Gipsy or Brown-Tail Moth.

(Prepared by the United States Department of Agriculture.)

The main arguments of objectors to plant quarantine No. 37, which will greatly restrict the entry of nursery stock and other plants and seeds, beginning June 1, 1919, are that either no pests are brought in on such imported stock or that thorough inspection abroad would eliminate any undesirable insects. There is no question but that the chief exporting foreign governments have given to their nursery stock the best inspection which human skill and science can afford. Failures are due to the human equation and to conditions not subject to change, which make inspection and certification insufficient safeguards.

The inadequacy of such inspection since 1918, when it became operative, is shown by the findings resulting from reinspection of imported material at destination in this country. Data gathered by the United States department of agriculture show that there have been received from Holland 1,051 infested shipments, involving 148 kinds of insect pests; from Belgium 1,306 infested shipments, involving 64 kinds of insects; from France 347 infested shipments, involving 89 kinds of insects; from England 154 infested shipments, involving 62 kinds of insects; from Japan 291 infested shipments, involving 108 kinds of insects; from Germany 12 infested shipments, involving 15 kinds of insect pests. Many of these intercepted insects are not known to be established anywhere in this country, and numbers of them, if established, would undoubtedly become important pests.

Typical of the insects thus imported, some of which have come in on more than 1,000 shipments, are the records in relation to gipsy and brown-tail moths.

Under the system of inspection which has been established in the principal exporting countries there is little excuse for the passing and certification of stock infested with the egg masses of the gipsy moth or with the large and rather conspicuous leafy winter nests of the larvae of the brown-tail moth. In point of fact, however, during the period in which the highest possible grade of inspection has been enforced no less than 52 different shipments of plants from foreign countries have been found to be infested with egg masses of the gipsy moth or larval nests of the brown-tail moth. Three of these were from Japan and the others were from France, Holland or Belgium.

Unfortunately these records do not necessarily comprise the total entry of these two pests. They represent merely the instances of infestation discovered by reinspection on this side. Under the law the inspection of imported nursery stock in this



Imported Stock Ready for Planting.

country is left to the inspectors of the states, and the finding of infestation is there entirely dependent on the efficiency of state inspection. In many states this inspection is of a high order, and probably most if not all instances of infestation are found. In other states the inspection service is inadequately provided for and insufficient, and in a few states the service has little support and little if any efficiency. There is therefore the possibility that one or both of these pests have already gained foothold at one point or another in the United States and have not yet been discovered and reported. In this connection it should be remembered that the gipsy moth was 20 years in Massachusetts before it was known.

The establishment of these two insects in different parts of the United States would soon lead to their general spread throughout the country. What this would mean in cost and damage and also in human suffering can hardly be estimated. Only a portion of the New England states is now invaded by these insects, and yet the expenditure in clean-up and control work alone amounts to more than a million dollars a year by the states concerned, in addition to an aiding federal appropriation of upwards of \$300,000 annually.

The KITCHEN CABINET

The food supply would be probably better selected, varied and cooked, if the daily supervision were allotted definitely to one who has been trained for the purpose, and chosen because of capacity for the office. Cake is to the appetite what mirth is to the melancholy.

CAKE MAKING.

Just a word to those who are yet inexperienced in the art of cake making.

First of all, have all the materials to be used ready at hand before beginning, or in the midst you will find some important ingredient missing which will need a change of plans.

Most cooks have some standard recipe which they will vary with flavoring, spice or fruit, or bake in different shaped tins with different fillings or frostings, which will give a large variety.

The time was when much creaming of butter and stirring of sugar and butter was thought the only way to make a butter cake, but these busy days are teaching us many ways of simplifying our work, and cake making must keep pace. The shortening, if softened—not melted—will mix with the sugar and it takes but a short time to cream it; add a little hot water or milk if hurried for time and then give the mixture a good beating, adding the eggs beaten and give another good beating. A fair cake, good enough for every-day use, is one using three tablespoonfuls of butter or butter substitute, one cupful of sugar, half a cupful of milk, two eggs, two teaspoonfuls of baking powder and a cupful and three-quarters of sifted flour. Add flavoring and bake in a hot oven. A circle of well-greased paper placed in the layer tins, as well as deeper tins, will help to remove the cake without breaking.

A cake that is baked with a little flour as will hold it up makes a much more tender and delicate one. The baking is a most important factor in good cake making. Have the oven very hot for layer cake and bake from 10 to 12 minutes. For a loaf cake which needs 40 minutes to bake, divide the time into quarters. The first ten minutes see that the cake begins to rise, the second ten minutes it finishes rising and begins to brown, the third ten minutes it finishes browning and begins to shrink from the pan, then the last ten or quarter it finishes baking. If a cake crackles as if still cooking when taken from the oven, put it back for a few minutes.

Fruit Layer Cake.—For a delicious cake to use for company or on special occasions, this is excellent. Cream a cupful of shortening, add two cupfuls of warmed sugar to hasten the creaming, add six well beaten eggs, two and one-half cupfuls of flour, a cupful of milk, a teaspoonful of vanilla and three teaspoonfuls of baking powder. Beat well and bake in three layers.

Only the possessions which we use are of present value to us. A man may have a money fortune, and yet be poverty stricken in the very things which that money would buy him. The money is his all the time; but it is of little or no value to him because he lets it alone.

WHAT TO EAT.

There are few people who feel that a meal has been satisfying that is not finished with some kind of dessert, and usually feel if none is provided that the dinner is not a success.

Peach Sherbet.—Put a pound of sugar and a quart of water on to boil 20 minutes; let cool, then add one and one-half cupfuls of peach pulp, the strained juice of an orange and the juice of half a lemon. Freeze.

Date Crackers.—Put a pound of washed and pitted dates, with a cupful of sugar and half a cupful of water, in a sauce pan and cook until soft and smooth. Cool. Cream a cupful of shortening, add a cup of brown sugar, two and one-half cupfuls of rolled oats which have been parched to a light brown, two cupfuls of flour; stir and mix well; add a teaspoonful of soda to half a cupful of hot water and stir into the mixture. Roll out, cut and place a spoonful of the fruit on a cookie, cover with another, then bake.

Mint Sherbet.—Soak half a cup of chopped mint leaves in the juice of two lemons and three oranges half an hour. Boil two cupfuls of sugar and a cup of water five minutes, then pour over the other ingredients. When cold strain into a freezer, add the grated rind of the fruit and the white of an egg beaten stiff with a cup of whipped cream. This sherbet may be served as a dessert or as an accompaniment to a lamb roast.

Junket is a most delicious dessert for a hot day when one wants just a dainty finish to the meal. Add a tablet of rennin to a quart of lukewarm milk, sweetened and flavored. Stir well after crushing the tablet and dissolving it in a tablespoonful of water. Then pour the mixture into the sherbet cups or glasses in which it is to be served. When well set put on ice to chill.

Chocolate pie may be prepared in the same way, adding two squares of melted chocolate, or a prune pie, adding a cup of prunes which have been put through a ricer.

Neelie Maxwell

BOY SCOUTS

BOY SCOUT "VETS."

The veterans used to be gray-haired faces deeply marked, stoop shouldered, one pinned-up, empty trousers. Their deeds are already in our histories.

But there is a new generation of veterans today. Young fellows, every one of them. Not stooped, not pinched, very chesty indeed and good cause. Not yet long enough turned from the battles to have an annual reunion. But nevertheless, Saviors of the world. Saviors of their country.

And there is a still newer generation of veterans coming upon the world stage. These have not been because of them—in part at least—the world itself may never know again.

These newer veterans are the fellows who have been five years in the boy scout movement. They are first-class scouts. They have taken upon themselves the scout obligation for life. They have registered with local scout authorities for service to the community in any emergency.

Scouting principles imbedded in the boy's nature will continue to operate in his life whether or not he wears the uniform and the badge. By order that the movement shall be the quality of citizenship of the nation most effectively, scouting principles should continue to operate through every scout in the active form which the veteran scout bodies in his allegiance.

A SCOUT PARADISE

I know of a wonderful spot on the edge of a shimmering lake. And a lake that's as blue as the sky over you, and as sweet as the honey at your door.

There the red-winged black-bird bathes his mates to bathe in the pond; And the banks overflow with the flowers that grow at the touch of Nature's wand.

There the soft breezes whisper the message of rest while away on the water we row; And the swimming is fine in the sunshine, and at evening the camp fire aglow.

There's a jolly old lodge with a jolly crane a-swing in the old days; And a jolly old cheer with a jolly old song on the front of his jolly old hat. There we pitch our tents with a jolly that's immense and we smooth our bunks with delight;

In the blankets we crawl and snore, we fall, to the tune of the sounds of night. Why not join in our song as we trudge along, and gather our troop in a way? You will hit up scout's pace when you get near the place, and be ready work or for play.

—By R. N. B.

SCOUTS BOOSTED IN BOSTON

A letter to the Boston Transcript signed among others by Charles W. Lot and A. Lawrence Lowell, says in part:

We are entering an era of readjustments in wages and prices. In such cases lack of employment and other of opinion between employers and employees will be inevitable. Unless adopted every reasonable means to promote right understanding and good feeling between our various groups unless we keep to the front the distance of hearty co-operation—hard feeling is sure to be generated and we need only read the newspapers to be warned of the possible results.

We cannot expect a complete guard against this danger, but the scout movement gives considerable protection, because it promotes mutual understanding and good feeling.

BOHEMIAN BOY SCOUTS

Scouts in Prague sounds like a real thing in scouting. A letter there reads:

"Bohemia's boy scouts of the Scout troop at Prague in the Czech-Slovakian republic send greetings to their brother scouts in America."

"Members of this troop are scouts; 'all round' sportsmen who yachting, canoe, tramp, swim, etc. winter they skate and ski, and camping with sled and ski."

"The troop has four canoes, rowing boats, two sailing yachts, a motorboat, their houseboat, a ship feet long with club rooms in the middle for 20 to 30 boys. The ship at anchor in Prague."

SCOUTING ALIVE AT COLLEGE

The University of Pittsburgh adopted scouting with enthusiasm. Its Chancellor S. B. McCormick faculty members are instructing scouting subjects, and courses in cookery and the duties of scout leaders have been started.

SOLDIER THANKS BOY SCOUTS

Scout Harry W. Lyons of a Massachusetts, is justly proud of the help he received from a soldier in the occupation. The doughboy had the of the scout's splendid work in War Savings stamps and was writing:

"Here's the hand of a soldier, your earnest work in keeping me clothed and equipped. I have the best, and you have done as much more than I."