The DAIRY

AYRSHIRE IS GOOD RUSTLER

Animal Is Quite Useful in Sections Where There Is Much Rough Land in Pasture.

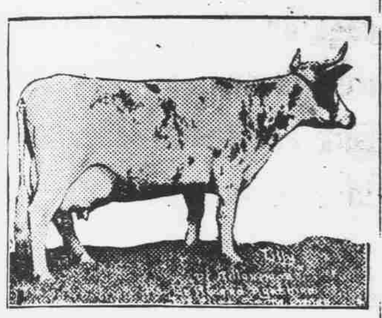
(Prepared by the United States Department of Agriculture.)

The Ayrshire breed originated in the county of Ayr, in southwestern Scotland. In that region, which borders on the Irish Sea, the surface is rolling and has much rough woodland. Pastures, therefore, are somewhat sparse and it is necessary for animals to graze large areas in order to obtain sufficient feed.

It is only within the last hundred years that Ayrshires have had a type well enough established to be entitled to the designation of breed.

This breed is not well known in many sections of the United States—New England, New York and Pennsylvania probably contain the largest number of its representatives. There is a small distribution in the Middle Atlantic States, the Pacific Northwest and other scattered sections.

The color of this breed varies from the medium red to very dark mahogany—brown and white. The cattle



An Ayrshire Which Won World's Record for Milk Production.

have long horns which turn outward, then forward, then upward. Quick, brisk actions are characteristic of the animals which seem always to have an abundant store of energy, and to be exceptionally alert. Ayrshires have a highly nervous disposition, which is useful both for production and self-support. Probably none of the other dairy breeds can compare with the Ayrshires in ability to obtain a livelihood on scant pastures. Their ability as "rustlers" has made them very useful in sections where there is much rough land in pasture. Cows of this breed average 1,000 pounds in weight, and bulls average about 1,600.

Another point of which breeders of the Ayrshire are very proud is the uniform, square, level udder with long body attachment which is common among the cows.

Milk from Ayrshire cows contains comparatively little color and has the fat in uniformly small globules which average smaller in size than for any other breed. The milk stands shipping well without churning, and in other respects it is well adapted to the market milk trade.

For Ayrshires the average of the 2,598 cows that have completed yearly records for advanced registry is 9,555 pounds of milk testing 3.95 per cent of butterfat, amounting to 377.51 pounds of fat. The ten highest milk producers of this breed range from 25,329 to 18,745 pounds of milk and the average of these ten highest producers is 21,538.8 pounds of milk. The ten highest butterfat producers among Ayrshires range from 955.56 to 744.73 pounds, with an average, for these ten, of 855.4 pounds of butterfat.

INCREASED MILK PRODUCTION

Supplies Food Material More Economically Than Meat or Eggs—Efficient Dairy Cow.

(Prepared by the United States Department of Agriculture.)

Two facts stand out prominently as reasons for the increased production and use of milk. The first is that milk as purchased on the market usually supplies food material together with the growth producing elements more economically than either meat or eggs. The second reason is that the dairy cow is the most economical producer of animal food. One great law of food conservation is to turn inedible feeds into edible foods in the cheapest possible manner. The dairy cow will utilize coarse materials, inedible by humans, such as grass, cornstalks, hay, etc., and will turn them into milk, which is suitable for human food. Other farm animals also are converters of coarse roughage into edible foods, but are not so efficient as the dairy cow.

COWS GIVEN FEED AND CARE

If Profit Is Not Returned Send Her to Shambles and Give Feed to One That Will.

Give the cows a chance. Feed and care for them properly. If an animal does not have it in her to return a profit or even pay for the feed given here send her to the shambles and give the feed to one that will.

ORCHARD GLEANINGS

SPRAY FOR ORCHARD INSECTS

Better Understanding on Part of Growers Will Add Much to Efficiency of Operation.

(Prepared by the United States Department of Agriculture.)

Insect control in orchards and vineyards is largely effected by spraying, and the needs of the fruitgrower in the protection of his crops from the attack of insects and fungi have been the predominating features in the development and excellence of our present lists of insecticides and our variety of spraying apparatus.

Although spraying is one of the more expensive of the several orchard operations, the value of the crop is so greatly increased thereby that it is a comparatively small investment, the expense amounting to only a fraction of the returns directly due to the practice. Orchard spraying is, in fact, an exceedingly cheap form of insurance.

It must not be inferred, however, that spraying operations are uniformly

Examples of Insects With Biting Mouth Parts—a, Grasshopper; b, e, Beetles; c, d, Sawfly Larvae; f, Caterpillar.

successful. While a considerable degree of skill in spraying has now been reached by a large proportion of fruit growers, there is still room for a good deal of improvement. Of all orchard work, spraying is most likely to be slighted or even neglected, and there is need that fruit growers have a more intimate knowledge of spraying materials, spraying machinery, and especially the whys and wherefors of spraying.

The term "spraying," unfortunately, has come to have a general meaning, and it is apparent that some fruit growers do not yet understand that the kind of spray and the manner of application depend upon the character of insect or insects to be controlled. The up-to-date orchardist will know just what each spray application is intended to do and will realize the importance of spraying at the proper time and in the proper way. A better understanding on the part of fruit growers of the life and habits of the insect pests of their crops and of the nature of insecticides will add much to the efficiency of their work in fighting them.

There are several important insect pests, however, from which spraying does not give protection, and the control of these must not be overlooked by the orchardist. Of these the most serious are the several species of borers, which are best destroyed by systematic "worming," once or twice each year. The great desirability of keeping insects reduced by up-to-date orchard practice, as fertilization, thorough cultivation, and attention to pruning and other operations cannot be emphasized too strongly, and is well appreciated by our most progressive and successful growers.

A knowledge of the character of the mouth parts of insects is of importance to the fruit grower, for it determines the general character of sprays to be used. Broadly speaking, all insects secure their food in one of two ways: (1) By actually biting out and swallowing portions of the food material, or (2) by sucking out the juices from the interior portions of the host. While there are exceptions to this general statement, these are unimportant in the present connection.

Biting and sucking types of mouth parts are on two quite distinct plans. In the former there are two horny, opposable jaws, working sideways, and certain accessory appendages, with which particles of the leaf, bud, fruit or other food substances are cut out and passed on as more or less solid particles to the food canal for digestion. This type is found in several orders of insects, as in caterpillars, or the larvae of moths and butterflies, adult beetles and their grubs, grasshoppers, crickets, sawflies, bees, etc. All biting insects are subject to destruction with arsenicals or other stomach poisons. Some chewing insects, as borers and certain root-infesting insects, do not feed in situations where poisons may be applied, and for these a different treatment is necessary.

Best General Fertilizer.

Stable manure is the best general fertilizer that can be applied in the orchard.

OUR FARM PAGE

Articles of interest for Farmers, Live Stock Men, Dairymen, Gardeners

PREVENT SEEDING IS FIRST PRINCIPLE IN WARFARE AGAINST INJURIOUS WEEDS

(Prepared by the United States Department of Agriculture.)

If it is not practicable for the farmer to dispose of his weeds when they are small he should make every effort to prevent them from going to seed. If weeds are attacked when the most advanced have just reached the full-blossom stage, they can be prevented from seeding. At this stage, too, the roots are at their weakest, especially those of the annuals and biennials, which are largely exhausted. No time should be lost, however, in disposing of weeds when the full-blossoming stage has been reached, as seeds will shortly be formed. Some weeds, such as pigweed, produce blossoms that are very inconspicuous, so that unless closely watched they will go to seed before one is aware of it.

Tillage to Control Weeds.

While tillage in its relation to weeds usually is practiced for the benefit of the immediate crop, it also may serve the purpose of preventing hosts of weeds from maturing seeds. Thorough tillage serves the additional purpose of encouraging the rapid germination of weed seeds in the soil while killing the weed seedlings when young. In no way is the old adage "A stitch in time saves nine" better illustrated than in killing weeds by tillage soon after they have germinated rather than delaying the work until they have attained some size.

The thorough preparation of the seedbed for every crop is an important part in the control of weeds. After plowing, nearly all farmers use a disk or a spring-tooth or spike-tooth harrow to reduce the soil to a good seedbed condition. Each of these harrowings destroys hosts of young weed seedlings. As it is only the weed seeds within a few inches of the surface of the soil that germinate and as the harrowings encourage the rapid germination of the weed seeds, thoroughly harrowing at this period may be relied upon to kill a large portion of the weeds that will appear during the season. In fact, it sometimes happens that the seedbed has been so well prepared that after planting a cultivated crop, such as corn, cotton, or potatoes, but little cultivation is required.

Kill Weeds by Dragging.

After planting the cultivated crop the same object, that of attacking the weeds when young, should be kept in mind. To this end a drag harrow or a spike-tooth harrow is frequently used, both before and after the crop comes up. More weeds will be killed by one dragging at this time than by several cultivations when the plants have become larger. The weeder is also a valuable implement for use at this stage. By removing some of the teeth of this tool it can be used in corn until the crop is nearly waist high. Indeed, some excellent crops of corn have been grown by the use of the weeder only. Some soils are too stony or otherwise not suited to the use of this implement, but where it can be used the weeder is one of the most valuable tools on the farm. The drag harrow and weeder may also be used to advantage with potatoes, cotton, and other cultivated crops. After the crops have become so large that these implements can no longer be used, the tillage is performed with cultivators. Cultivators that destroy weeds most effectively should be used. The best tools for this purpose vary with the kind of crop and the type and condition of the soil, so that it is difficult to lay down exact rules as to the choice of cultivators. Intercultural tillage is especially effective in controlling weeds if the crop has been planted in checkrows so as to permit the implement to work in two directions.

If the work of preparation and aftertillage has been thorough, few weeds will come up and go to seed after cultivation stops. This is especially true where a winter cover crop, such as wheat, crimson clover, or vetch follows the cultivated crop.

Cultivated crops, therefore, offer abundant opportunity to rid a farm of weeds. If properly handled, they are rightly termed "cleaning crops." On the other hand, where these crops are not well cultivated, weeds are actually stimulated to vigorous growth and prolific seeding. Such crops are consequently a boon or a menace, depending upon how they are handled.

Besides the usual cultivated crops, small-grain crops can also sometimes be cultivated to advantage in the spring with a spike-tooth harrow or weeder. This does not permanently injure the young crop, and it kills hosts of small weed seedlings which would otherwise make trouble. Farmers in the upper Columbia river basin are able to control wild mustard by repeatedly harrowing fall-sown wheat in the spring; without this harrowing the mustard would be very troublesome.

After the small-grain crop is harvested it is often good practice in the Northern states to harrow or disk the stubble to encourage the germination of the weed seeds that are at or near the soil surface. The seedlings are killed by the fall plowing or by cold weather. Some weeds, such as ragweed and foxtail, start to mature seeds soon after harvest, so that care must be taken to turn the plants under before the seeds approach maturity. Plowing without the preliminary disking would turn under millions of weed seeds to make trouble in future years.

Mowing to Prevent Seeding.

Mowing is another way of preventing weeds from going to seed. As a rule, it is best to mow when weeds have reached the full-bloom stage. Many farmers mow their pastures once or twice each year and as a result have gradually driven out the weeds and thickened the grass stand. When there are patches in grain fields thick with weeds, it will pay to cut them, grain and all, before the weeds start to go to seed. Most careful farmers mow or cut their fence-row and roadside weeds once or twice a year to prevent their seeding.

It pays to cut a hay crop early, in order to prevent weeds from going to seed as well as to secure a better quality of hay. After a grain crop is removed, a crop of weeds, such as ragweed or foxtail, usually follows, which, if not disturbed, not only reseeds the land for further crops of weeds, but may do much damage to a young seeding of clover or grass. Mowing these weeds will prevent most of them from going to seed, and, further, the clippings will be of value as a mulch for the young grass.

Hand Work to Prevent Seeding.

Quite often a few scattered weeds will occur in a field. These weeds can be removed by hand with little work, whereas if allowed to mature they would thoroughly seed the land and make trouble for the future. Such weeds may be prevented from seeding either by hand pulling or by digging them out with a mattock, hoe, or spud so far below the surface that new top growth will not spring up and mature seeds. Annual and biennial weeds will make no further appearance if pulled or cut off when they are in full bloom. The spud is a tool with a long handle and a narrow chisel-like blade at one end. This is very effective in disposing of weeds with thick roots, such as bull thistle, mullein, and chicory. Many farmers have cleaned their farms of corn cockle, wild mustard, and many other weeds by a few hours of hand work each year when those weeds were in full blossom.

Keep Dogs at Home.

Dogs are domestic animals and should be kept at home. If they run at large they are a menace to sheep and also carry infection from one farm to another.

Scavengers of Weeds.

Next to goats sheep are the greatest scavengers of weeds and waste vegetation known to the American farmer. Of 500 varieties of weeds and grass, 432 were eaten readily by sheep in a test at the Minnesota station.

Don't Disturb Sow.

The sow should not be disturbed after farrowing. At first she should have but little more than a drink. A thin slop of middlings and water answers the purpose.

Safe Place for Lantern.

A wire strung overhead makes a safe and handy place to hang the lantern in the barn. Use a harness snap and slide it along as needed.

Oil Harness Often.

Harness should also be oiled often enough not to become stiff. It wears much longer.

Spread Manure Often.

Spread manure often with a machine made for the purpose. It saves bor and increases crop yields.

Care for Farm Tools.

Tools, saws, chisels and the like should also be oiled when not in use. A bright saw will run much easier than a rusty one. A pair of sheep shears put away in the spring without being oiled will be of little value when next needed.

Trees in a Pasture.

If there is a low spot in the pasture start a few shade and shelter trees by sticking some cuttings into the ground and fencing the spot.

Prevents Waste of Corn.

The silo prevents waste of cornstalks, leaves and husks which contain about two-fifths of the feeding value of the corn plant.

Replace Much Grain.

Alfalfa, sweet clover and silage can be made to replace much grain and effect a large saving in the cost of producing meat and milk.

Keep Weeds out.

Keep your land busy growing crops so weeds cannot pre-empt it.

The KITCHEN CABINET

If our America is to become ever greater and better, her citizens must be loyal, devotedly faithful, in every relation of life.—W. J. Hutchins.

GOOD WARTIME DISHES.

We cannot say that we are doing our part in food saving and serving unless we waste absolutely nothing. Not a crumb of bread should be wasted. The crumbs that fall from the bread board in cutting bread will amount to at least a teaspoonful from a few slices. Put them in chopped meat, in puddings, in gravies for thickening instead of wheat flour. Any number of uses will occur to the cook who is trying to save.

Veal Sweetbreads.—Sweetbreads spoil quickly and should be used as soon as possible. Plunge them into cold water and let stand an hour, changing the water twice. Put them to cook in slightly salted acidulated water, boiling hot. Cook for thirty minutes rather slowly. Drain, plunge into cold water which keeps them white and firm. Now they may be used in various ways.

Liver.—Parboil one pound of beef liver five minutes. Drain. Remove the skin and veins, then brown in a little hot fat, chop, add a fourth of a teaspoonful of mustard, a teaspoonful of salt, a few dashes of pepper, a fourth of a teaspoonful of worcestershire sauce and thicken with a teaspoonful each of butter and flour. Add a hard cooked egg and a teaspoonful of lemon juice. Serve on corn dodgers.

Corn Dodgers.—Boil together one cupful of milk and water, add a cupful of cornmeal and cook five minutes. Add two well-beaten eggs, two teaspoonfuls of salt and a tablespoonful of fat. Beat thoroughly and bake in a well-greased pan twenty-five minutes in a hot oven. Serve from the dish with a spoon.

Brown Stew.—This is a good dish to make a little meat go a long way. Cut a pound of the neck of a beef in inch cubes, season, dredge with flour, brown in fat, then add potato water to cover. When it boils up set it back and let it simmer slowly for three hours. Three-quarters of an hour before the end of the cooking, add carrots and turnips cut in cubes; a half hour before serving add potatoes. Three-fourths or a cupful of each vegetable will be a good proportion.

Don't you wish that you might see
Spring peep out behind each tree?
Don't you wish that you might hear
All the brooklets shouting clear?

GOOD THINGS WITH BARLEY FLOUR.

In many of the darker cakes, using spices, molasses and chocolate, barley flour may be used exclusively in place of the wheat flour.

Sponge Barley Flour Cake.—Beat four egg yolks very light, add one cupful of sugar, beating it in gradually, then add a tablespoonful of hot water, a cupful of barley flour mixed and sifted with one and a half teaspoonfuls of baking powder, a fourth of a teaspoonful of salt and a teaspoonful of lemon juice. Fold in the egg whites, beaten stiff, and bake in a slow oven 15 minutes.

Plain Barley Cake.—Sift one and a half teaspoonfuls of baking powder with two cupfuls of flour, a pinch of salt. Cream a fourth of a cupful of fat, add three-fourths of a cupful of corn sirup, a beaten egg, two-thirds of a cupful of milk added alternately with the flour and well beaten. Add a cupful or less of raisins well floured and stirred into the cake. Pour into a shallow pan and bake 20 minutes.

Barley and Oatmeal Drop Cakes.—Take a cupful of barley flour, one and a fourth cupfuls of rolled oats that have been well parched and put through the meat grinder, a half a cupful of fat, one-fourth of a cupful of brown sugar, the same of corn sirup, one egg, three tablespoonfuls of water, two teaspoonfuls of baking powder, with a teaspoonful of salt mixed with the flour, and lastly a half-cupful of nuts.

Barley Cakes.—Take two cupfuls of barley flour, three teaspoonfuls of baking powder, a half teaspoonful of salt, sifted together. Cream a fourth of a cupful of fat with three-fourths of a cupful of sugar, add a half cupful of milk and three-fourths of a cupful of nut meats. Drop on well-greased pans and bake in a moderate oven.

Barley Pie Crust.—Prepare the pastry just as usual, using barley flour instead of wheat. It will be a little harder to handle but will be tender and flaky. A most dainty pie can be made of custard, using three or four marshmallows to sweeten, and two or three teaspoonfuls of coconut stirred into the meringue instead of the sugar, which does away with using sugar.

Nellie Maxwell

Arabian Bridal Presents.

Among modern Arabians the bridegroom makes the bride presents, which are sent a day or two before the nuptials. As soon as the bride reaches the bridegroom's house she makes him presents of household furniture, a spear and a tent.

POULTRY FACTS

LITTLE TROUBLE WITH GEESE

Many Farms Adapted for Raising Small Number of Fowls—Pasturage Is Quite Essential.

(Prepared by the United States Department of Agriculture.)

In our efforts to increase the production of poultry, which is being urged by the department of agriculture, we should not ignore turkeys, ducks and geese. Many farms are well adapted for geese-raising. They

Flock of Toulouse Geese.

may be raised in small numbers successfully and at a profit on farms where there is low, rough pasture land with a natural supply of water. Geese are generally quite free from disease and insect pests, but occasionally are affected by ailments common to poultry. Grass makes up the bulk of their food, and for this reason pasturage is essential. A body of water, while not absolutely essential, is valuable where geese are raised, and some breeders consider it important during the breeding season. Geese are good foragers, and for this reason many farmers in the South keep them to kill the weeds in the cotton fields.

Geese need little protection in the way of a house, except in winter and during stormy weather. Some kind of a shelter should be provided for the young goslings, and the same precautions taken in raising chickens as to keep the coops and houses clean and provided with plenty of straw scattered about the floor, should be taken.

Geese like other kinds of poultry, should be selected for size, prolificacy and vitality. They should be mated several months prior to the breeding season to obtain the best results. Good matings are not changed from year to year unless the results are unsatisfactory. A gander may be mated with from one to four geese, but pair or trio matings usually give the best results. When mated, geese are allowed to run in flocks. From four to twenty-five geese may be kept on an acre of land, and under most conditions ten is a fair average.

PREPARE GEESE FOR MARKET

Young Fowls Can Be Fed Advantageously While on Grass or Confined in Small Yards.

(Prepared by the United States Department of Agriculture.)

Before marketing the young geese the average farmer can feed advantageously a fattening ration either while the geese are on grass range or confined to small yards, but it is doubtful whether it would pay him to confine them to individual or small pens and make a specialty of fattening unless he has a special market or retail trade for well-fattened stock.

Geese are usually killed and picked in the same manner as other kinds of poultry. Some markets prefer dry-picked geese, while in other markets no difference is made in the price of scalded or dry-picked geese. When feathers are to be saved, fowls should not be scalded but should be picked dry before or after steaming.

RAISING GEESE FOR PROFIT

Fowls Earn Their Own Living by Foraging in Pastures—Alfalfa Field Is Ideal.

That there is big money in raising geese is conceded by every one who has had anything to do with the raising of them. They earn their own living by foraging in the pastures and meadows, and where great quantities of alfalfa are raised would be an ideal place for them.

FIXTURES OF POULTRY HOUSE

Construction Should Be So That Everything Can Be Readily Removed and Cleaned.

(Prepared by the United States Department of Agriculture.)

As far as possible, the interior fixtures of a poultry house, such as roosts, nests, dust boxes, drinking fountains, feed troughs and grit boxes, should be so constructed as to permit them to be readily removed and cleaned.