

FLOCKS OF EWES.

FOOD AND CARE OF BREEDING SHEEP INSURING HEALTH AND PROFIT.

No class of farm stock pays better for liberal treatment than the ewe flock, writes Gilbert Murray in the London Live Stock Journal. A small allowance of corn or other artificial food will keep them in good condition and maintain them in health and greatly reduce the mortality, while a lean ewe generally rears a puny lamb. We are apt to ignore the fact that 25, 50, or 75 spent on oatmeal or dried grains per head would handily repay the outlay by reducing the death rate independently of the improved condition of the survivors. The loss of a single ewe and lamb would amount to more than the outlay on six ewes that survive. The loss does not end here. There is the further loss of the yearly produce to be added.

I am familiar with the extra trouble the use of auxiliary foods entails. Nevertheless the trouble is amply repaid by the results. The best way of using corn is to reduce the fact that 25, 50, or 75 spent on oatmeal or dried grains per head would handily repay the outlay by reducing the death rate independently of the improved condition of the survivors. The loss of a single ewe and lamb would amount to more than the outlay on six ewes that survive. The loss does not end here. There is the further loss of the yearly produce to be added.

PLANT BREEDING.

Improvement of Plants by Careful Bud Selection.

A subject familiar to florists, but scarcely so to the general public, is called up for consideration by A. S. Hitchcock of the Kansas station, who states his ideas of plant breeding by selection thus:

All plants are made up of a succession of shoots originating in buds. These shoots show as much tendency to vary as do seedlings. The degree of variation is not usually as great, since the latter unite the qualities of two parents, while the former are the product of one parent. Nevertheless sudden and marked variations are not uncommon. As a matter of fact, many of our cultivated varieties have originated from bud sports. The nectarine came from a branch of the peach.

In plants like the apple, which are widely dispersed by means of graftage, there is more or less departure from the original type. The Newtown Pippin, which originated in Long Island, has varied in Virginia into the Albemarle Pippin, a poorer keeper than the original. In the northwest it has varied into a form which has five ridges at the apex, while in Australia it is so different as to have been renamed the Five Crowned Pippin.

Florists and horticulturists are constantly on the watch for "sporting" shoots. When the sport is desirable, it is fixed by vegetative propagation. Many forms with cut leaves, variegated foliage, weeping habit, double flowers, flowers of different colors from type and others have been produced in this way. Bud variation is a fact well recognized among horticulturists, especially florists and growers of ornamental shrubs and trees. I wish especially to draw attention to the fact that the good results following bud selection in ordinary propagation.

While a sudden and marked variation from the type usually called sport is an exception, yet slight though recognizable variations about a particular tree is the rule, and these variations tend to perpetuate themselves, though they sometimes revert, as do seedlings. Our orchard fruits would be improved rapidly if there were more care used in selecting the scions, buds or cuttings from those individuals which have proved themselves to be in advance of the average. Not only should buds be selected from proper individuals, but even from a particular branch. Small fruits can be easily improved in this way.

The common practice of plowing up or digging up at random the young plants from a strawberry bed is not conducive to improvement of the varieties. The most successful growers are learning that it pays to select from the best individuals each generation. In fact, it is advisable to keep a patch of plants from one generation to another, grower cannot take time to select individual plants for customers, but he can select his breeding plants each year from the best plants of the preceding year and thus gradually improve his breeding plants and through them the general crop.

FARM AND GARDEN

HOW TO HANDLE BEES.

A Beekeeper's Ideas of Safe and Satisfactory Ways.

The prospective beekeeper will naturally be interested in "how to handle bees." A theory of the operation is thus set forth by a writer in Rural New Yorker: To become familiar with the habits and life of the honeybee in an intelligent and practical way it is of course necessary to use a movable frame hive of some sort. In order to meet their needs we must know what is going on inside the hive. When bees are in the field gathering honey or when swarming, they will never volunteer an attack, because they are then filled with honey, but when their little home is molested they will then act in self defense and resent the attack. It is therefore necessary to use a smoker of some kind. Before opening a hive send in a few puffs of smoke at the entrance to allow them, and they will immediately rush for the combs and fill themselves with honey.

After smoking them it is well to wait a minute or two that they may gorge themselves. The cover can then be lifted off and a little more smoke blown in on top of the frames, and the bees will adhere nicely to the combs. With screwdriver or tack puller the division board can be removed and the combs pried apart and one by one examined without danger of being stung.

In an apiary where there are many bees flying it is always best to be on the safe side and wear a veil, but gloves are unnecessary and cumbersome. A lenitive should not be applied apart every few days for more curiosity, but should be examined occasionally to ascertain the needs of the bees and condition. If the colony is weak, it can be strengthened by adding a frame or two of sealed brood taken from some other colony strong enough to spare it. It is well to select one kind of hives and frame, so that all the furniture of the hives will be interchangeable, and not have two or three kinds of hives in the apiary, which will surely cause a great deal of vexation and annoyance.

Bees should always be handled very gently. They seem to dislike quick, jerky movements. In early spring or autumn, when the days are cool, it is prudent not to open the hives until near midday, when the field bees will then be out gathering honey. On cloudy or rainy days it is best not to open them, for the field bees are then at home and are cross, being deprived of the privilege of gathering the precious nectar.

At night is the very worst time to molest bees, as some flying persons have found out to their sorrow. It is true that bees do not fly at night, but they crawl and sting. By injudicious handling bees can be made very irritable and cross, so that they will sting everybody near and far and will remain angry and vicious for weeks.

CLEANING UTENSILS.

As regards the common utensils, such as milk pails, pans, cream vessels, skimmers, churns, and so forth, it should be understood that as soon as they are emptied or out of use decomposing germs begin to multiply if they are not cleaned, and that properly, says Profitable Farm and Garden. Throwing them aside dirty until wanted next time accounts for serious loss, as one bit of bad flavored butter may lose a good customer. Any neglect in this regard soon speaks loudly in the favor of butter. Proper use of water is not always understood. Cold water should be used first to swill off the milk or cream adhering to the vessels and then hot water is used first, and then, microbes swarming in, remains of the stale milk or cream are scalded on instead of removed. It goes without saying that the sooner the articles are washed the less trouble there is in removing foreign bodies. And I am in favor of scalding the outside as well as the inside of the vessels, for bacilli containing matter on the outside is too near the inside to be treated. A good furnace of boiling water should be kept going every day, and any vessels that will bear it may well be entirely submerged in sufficient quantity of scalding water. I am not much in favor of scouring with sand and such like, as proper use of cold and boiling water answers pretty well all ends. All water used should be absolutely pure. It is too often the custom to store utensils and appliances of all kinds of old nooks and perhaps not twice in the same place. There is no method in such establishments, and it is not likely that uniform quality of butter will be turned out from these. Shelves in the dairy and other contrivances should provide for many of the articles used, and if they are not occupied—which may be seen at a glance—it may be suspected the appliances are either thrown by, probably unwashed, in unfit places.

FOOD INJURIOUS TO BUTTER.

In the spring and summer cows will often wander into low fields and swamps and eat weeds and wild plants that affect the taste of the butter, says E. P. Smith in The American Cultivator. There is sometimes a strong odor to it and again a decidedly bitter taste. This is first noticeable in the milk and cream, and the process of churning does not eliminate the trouble. The only sure way to prevent such odors and disagreeable taste in the butter in summer is to root out all weeds and noxious plants from the pasture. If the latter is in a run down condition, where weeds thrive and grass dies, it will be pretty hard to make the food of the cows good enough to produce excellent milk and cream. It will pay better in such cases to rent more or better pasture fields and sow the old one with new seed and fertilizer it will. Most tainted and bitter summer butters come from farms where the cows are pastured on warm grasslands.

WEARING MACHINES.

Shearing machines have come to stay, says The Sheep Breeder. They are a humane, labor saving and most profitable investment, especially to the rangelander, who have been dominated over long enough by the professional sheep shearers. The progressive professional shearer hails the advent of the shearing machine, as it is much easier to shear with a machine, and in the long run he will make just as much money and does not end with paralysis of the arm.

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LIBERTINE EWES.

allowed to remain for at least 24 hours before being fed. This will reduce the liability to waste and render the food more palatable as well as more easy of digestion.

An alternative scheme is to boil the corn in a portable furnace or copper and mix the chaff and corn. But already described, again using a considerable quantity of boiling water, water being a valuable constituent in the food of animals, and which causes roots to be more extensively used than their nutritive value warrants. I am well aware that a mixture of chaff, grain and calves of various kinds is frequently used, more particularly for sheep, but it is not a practice to be commended.

On all lowland farms where breeding flocks are kept some temporary shelter should be afforded at least during the night. Great care should be exercised in keeping the buildings clean and free from all decaying animal matter, which is a fruitful source of disease. In moderate weather the couples are kept more healthy when allowed a run in the fields during the daytime. An allowance of one-half pound of corn or meal and two pounds of good, sweet straw chaff is a fair daily allowance for a ewe.

CLEANING FOR FLIES.

I do not believe that filthy surroundings can originate hog cholera or swine plague, but where the living germs are present such uncleanly environments greatly aggravate the spread and degree of such ill diseases. The average hoghouse or hogpen is too often, though not designedly, made a permanent harboring place for disease germs. We have seen many good hoghouses well arranged for practical use and kept scrupulously clean. But it still remains that far too many hogpens are a disgrace to the owners thereof. A well built hoghouse, with cement or tight plank floors, well lighted and ventilated, with a good foundation wall under the sills, is desirable for the pig pens. But we prefer a small portable hog shelter and several of them for the average herd of swine on the farm.—Rural New Yorker.

HOUSES FOR ENGLAND.

There are large orders from England for houses, but buyers are able to bid partially fill them for the lack of shipping accommodations, says the Chicago Post. Several dealers are carrying over 25 to 100 houses each that should have been exported heretofore. The limited space is also seriously affecting the export of cattle and live stock products. The expectation of home buyers is practically at its maximum capacity until increased accommodations are provided for shipments.

THE LONDON LANCET GIVES THE FOLLOWING ACCOUNT OF SOME KITTENS WITH MILK PRESERVATIVES:

Five kittens were fed on milk containing 80 grains of boracic acid per gallon, equal to 1.7 of 1.100. In four weeks all were dead. Five kittens were fed on milk containing 40 grains per gallon. Two died in the third week and the rest in the fourth. Five "control" kittens received pure milk. None died. The distinction in weight in the animals receiving the boracic acid milk was very marked and brought into significant relief by comparison with the increase in weight of those fed on the normal fluid. It was seen in a day or two that the kittens treated with the boracic milk were losing appetite. Diarrhea, inactivity and depression followed, then rapid emaciation and death. With milk containing formalin similar results were obtained.

Of five kittens treated with milk containing one part formaldehyde in 50,000 of milk three died in five weeks. The average increase in weight was 177.6 grams compared with 251.1 grams of four "control" kittens treated with normal milk. With milk containing 1-25,000 of formaldehyde another series showed an average gain of 196.6 grams as against 325.7 grams gain by kittens fed on normal milk. Of a third lot treated with milk containing one part of formaldehyde to 12,500 of milk two died in the fourth week. The average gain in weight was only 96.4 grams against 312.5 grams with the "controls" fed on normal milk. The gentler the animals were the more susceptible they appeared to the influence of the formalin. The experiments are only preliminary, but the fact cannot be denied that they have a very distinct bearing on a matter which is, literally, of vital importance.

ABORTION IN CATTLE.

A committee appointed by the Highland Agricultural Society of Scotland to consider the question of abortion in cattle reported that the society's veterinary official, Principal Williams, had drawn up a short memorandum on the subject of abortion, which they recommended should be circulated among the members. The remedial measures suggested were: First, underground drains at farm steadings should be replaced by surface drains, and these should be kept clean; second, liquid manure should be kept some distance from wells and streams of water; third, the floors of byres should be frequently flushed and kept clean, a little crude carbolic acid, say two ounces to a bucketful, being added to the water; fourth, all aborted cows and those showing signs of abortion should be immediately isolated, the afterbirth (generally retained by aborted cows) to be removed and destroyed, and, fifth, the calf bed and passages of aborted cows should be disinfected, and for this purpose and for a continuance of this operation—applied externally as well as internally to the genitals—he recommended the commercial chloride of lime, 1 part in 1,000 parts of water.

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20 Quality Knives, triple plain, 50¢

21 Clock, day, Calendar, Thermometer, 50¢
22 Star, Hammer, 50¢
23 Hammer, 50¢
24 Hammer, 50¢
25 Hammer, 50¢
26 Hammer, 50¢
27 Hammer, 50¢
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