



Agricultural Department.

FEEDING YOUNG CALVES

As we have seen, fresh milk is the best food for the young calf, and the most natural method of taking it is for the calf to draw it from the udder of its mother. But there are many considerations that come in to prevent this natural method among the 500,000 dairymen of the United States. This natural method is only practicable among the breeders of pure-blooded and high-priced stock, and if such breeder of high blood is located in a dairying district where milk is valuable, it is quite unnecessary that he should feed new milk longer than two months. After that period the calf may be fed upon the skim milk and mixed or flaxseed gruel, with an excellent chance of growing a prize animal. In two months the calf will have made an excellent start and be ready for the modified diet. And if the calf is to be taught to drink, it is better to do this when ten days or two weeks old. It will learn easier at that age than later, and the cow will give more milk through the season than if the calf is permitted to suck longer. The milk being fed warm from the mother, the calf will make a growth not perceptibly different from one that sucks. This blooded calf should have the free run of a dry yard, with a little hay or grass to eat, that it may early develop its first stomach and chew its cud. A small field of grass in summer is still better. When the time comes for feeding skim milk, the ration may be made about as nutritious as the new milk by adding it to flax seed gruel, made by boiling a pint of flax seed and a pint of oil meal in ten to twelve quarts of water. Mix this in equal parts with skim milk, and feed blood-warmy. Let the calf have its fill twice per day, at regular times, until six months old. During this time teach it to eat a few oats, and in case of a tendency to scour, give, for a meal or two in the milk, a quart of coarse wheat flour, sometimes called by farmers, canal. It will be perceived that the oil of the flax seed will make good the loss of the cream in the milk,—in fact it is a ration as rich as milk itself, and we have seen calves raised upon it quite the equal of calves unning with the dam. We have also used flax seed and pea meal to make the gruel to mix with the skim milk, and it has proved an excellent combination.—Cor. National Live Stock Journal.

GARDEN FERNERY.

One of the prevailing fashions in the floricultural world of the day is the cultivation of exotic ferns, either in conservatories or in the dwelling-house, under glass shades or in Wardian cases. This, of course, devolves more or less care on the owner, unless a gardener is employed for they need constant attendance, a day's neglect in watering them frequently blighting all their beauty for the season, and sometimes even destroying them altogether. A taste for these delicate and beautiful plants is a sure index of a growth in aesthetic culture, as their beauty consists entirely in form, without the aid of any meretricious effects produced by color. Unfortunately it is not every one who can afford to keep a greenhouse, or whose domestic or business arrangements will permit him to devote the necessary time to the care of the plants therein. Yet it is not really necessary to have a greenhouse in order to indulge in this luxury, for there are large numbers of elegant ferns, both native and exotic, which are quite hardy and can be grown in the open garden and left out all winter. The prevailing idea that all ferns must be grown in peat soil and sand, or if grown in the open border, that it must be great trouble and expense to be made of such materials, is a fallacy for nearly all hardy ferns can be grown in any ordinary soil, from a sandy loam to a stiff clay, provided it is free from animal manure and retentive of moisture. In our own garden we have a small collection of Japanese and other hardy ferns growing in a border of heavy soil at the foot of a bank of earth three or four feet high, on the top of which are some shrubs. These cast some shade on the bed below during the hottest part of the day, and the plants flourish and grow luxuriantly, and are admired by all visitors. Neither is it necessary to have rockeries constructed for their cultivation, we have never seen one in this country that was really satisfactory unless it was supplied with a jet of water. A similar appliance to keep the soil moist being raised above the level of the surrounding soil like a mound, the hot dry air of our summer months heats the comparatively small stones of which it is composed, and the moisture in the soil is soon rapidly

dried out, and if there is one thing more injurious than another to ferns, it is allowing the roots to be sun-dry. If for the sake of any picturesque effect it is desirable to have a rockery, or to accommodate any species which grows on rocks, the stones should be inserted into the soil and upon it at its natural level, and never raised above it. Stones are sometimes useful, when laid on the surface, in retaining moisture and keeping the soil cool, but in all cases shade is necessary, for if the stones are exposed to the full rays of the sun, they become greatly heated, and give out this heat at night, which is another unnatural condition to ferns, for, as almost every one may have noticed, the habitats of ferns are generally, if not always, the coolest part of the woods at night.

Any of our lady friends who admire these lovely plants, and having a border protected by the shadows of shrubs cast over it, not shaded by overhanging foliage, may indulge her tastes by making a collection of such of our hardy and native ferns as grow in her neighborhood. If a border shaded by shrubs is not to be had, the north side of a fence or building will answer the purpose.

The ferns may be dug up from their native habitat and transplanted into the border at any time during the summer, care being taken to lift them with a good supply of roots, and keeping them from getting dry. This is most readily done by laying them in a basket and covering them with damp moss as they are taken up. After they are planted in the border, they should have a liberal supply of water. In the autumn, after the foliage has died down, they should have a covering of two or three inches of leaves, which must be removed early in the spring.

Many of our native species are quite rare, and all are possessed of great beauty, hunting for them will give many a pleasant and delightful ramble in the woods, and their cultivation will well repay any little trouble or fatigue in obtaining them.—Harper's Bazar.

SPECIFIC FOR INSECTS AND MILDEW IN ORCHARDS.

Prof. G. Thomas says—Insects and mildews, injurious to the leaves of seedlings and root grafts, can be kept in subjection or destroyed by a free use of a combination of lime and sulphur. Take of quick or unslaked lime, four parts, and of common flowers of sulphur, one part (four pounds of sulphur to one peck of lime), break up the lime in small bits than mixing the sulphur with it in a tight vessel (iron is best), pour on them enough boiling-water to slake the lime to a powder, cover in the vessel close as soon as the water is poured on, this makes also a most excellent whitewash for orchard trees, and is very useful as a preventive of blight on pear trees, to cover the wounds in the form of a paste when cutting away diseased parts. Also for coating the trees in April. It may be considered as the one specific for many noxious insects and mildew in the orchard and nursery, its materials should always be ready at hand; it should be used quite fresh, as it would in time become sulphate of lime and so lose its potency. Wherever dusting of lime is spoken of, this should be used. This preparation should be sprinkled over the young plant as soon as or before any trouble from aphides, thrips or mildew occurs, early in the morning while the dew is on the trees. This lime and sulphur combination is destructive to these pests in this way, first, by giving off sulphuric acid gas which is deadly poison to minute life, both animal and fungoid; and the lime destroys by contact the same things, besides its presence is noxious to them, neither is it injurious to common vegetable life, except in excess, unless the lime to the foliage of evergreens.

BUY SMALL TREES.—Nurserymen usually describe trees on their catalogues as "second class," "medium," "first class," and "extra." The difference in these classes is principally, if not wholly, in the size and height of the trees, and as most farmers desire the best, they suppose that the large "extra" trees merit that description, and hence order them. The fact is, however, that a small tree will grow faster and (if a fruit tree) come into bearing much sooner than a large one and, as the New England Homestead states, in half a dozen years the tree that was small when planted will be larger and finer than the other. The larger the tree, the larger the roots which it has, and the larger the roots the less fibres there will be upon them. A tree that has plenty of fibrous roots will grow readily if proper care is used in transportation; but no amount of skill can coax a tree to live and flourish which is destitute of these little fibres. The roots of large trees are always more or less mutilated in the process of taking up, while small trees sustain little injury from this source. Dealers in trees should that experienced men buy small, thrifty trees, while those who are just starting are anxious for the largest to be had. Those who are to set trees the coming season will do well to learn from

the experience of those who, at considerable loss to themselves, have demonstrated that small trees are the ones to buy.

A SCIENTIFIC SCARECROW.—The Scientific American gives the following directions for making a scart row on scientific principles. "The first and the best is a suspended looking glass. Take two small, cheap mirrors, fasten them back to back, attach a cord to one angle and hang them to an elastic pole. When the glass wings the sun's rays are reflected all over the field, even if it be a large one, and even the oldest and bravest of crows will depart precipitately should one of its lightning flashes fall on him. The second plan, although a terror to crows, is especially well suited to fields subject to the incursions of small birds and oven chickens. It involves an artificial hawk, made from a big potato and long goose and turkey feathers. The maker can exercise his imitative skill in sticking the feathers into the potato so that they resemble the spread wings and tail of the hawk. It is astonishing what a ferocious-looking bird of prey can be constructed from the above simple material. It only remains to hang the object from a tall, bent pole, and the wind will do the rest. The bird will make swoops and dashes in the most headlong and threatening manner. Even the most inquisitive of venerable hens has been known to hurry rapidly from its dangerous vicinity, while to small birds it carries untold dismay."

WHEN TO SOW DOWN TO GRASS.—I have not a doubt that August is the best time. Grass sowed then looks well now, though it hardly started perceptibly before frost, and it appeared to grow but little after that. Even that sowed with late rye is starting now finely, and will stand a drought much better than any spring sown grass possibly can. Oats seem so much a necessity to horses, that I have favored sowing down with that crop, and raise generally only rye enough for what straw we need. But last summer's experience is a warning. I met Mr. Barstow, of Norwich, Ct., a life long dealer in implements and seeds for farmers, and he appealed to me to know what time of the year it was best to sow grass seed. With the manner of Sir Oracle I said August,—and, it seems, confirmed some advice which he had just been giving. For my part I was very glad also to be confirmed in my view by so experienced an observer. Rather than sow grass seed with oats, and take the chances of the summer, I think it will pay to plow the oat stubble, and sow the grass and clover together as early as the oats can be gotten off the land.—American Agriculturist.

SMALL FRUITS.—The Factory and Farm says and with entire truth. "No garden is so small that an assortment of small fruit cannot be grown in it, and only those who have been thoughtful and planted the vine or tree in its little spot among the other collected good things really understand how much can be obtained from a small patch of ground. Because large things cannot be done and extensive preparations made for these things, the many do not enjoy them. A small spot of ground will produce a large yield of strawberries. They open the season of fruit and last about a month, producing a daily supply and banishing sickness from the family. Then, if a few raspberry bushes have been provided in the out-of-the-way places in the garden, that delicious fruit follows fast upon the heels of its forerunner, the strawberry, lasting not quite so long, but filling the interval until the blackberries are ready. These to be followed with grapes in great variety, thus giving a season of small fruit, with little cost of labor or attention and a great saving in providing the table, besides making it better."

The old-fashioned farmer can perhaps remember when he started at the idea of baling hay and putting a whole load into a few compact bundles. Years ago, however, it became a familiar practice. But we doubt if it has ever occurred to him to bale manure, and he will stare in good earnest to be told that Mr. Ackerman, of New York, is doing this very thing. He bales stable manure in a combined hay-press, and finds that it can be handled as easily as hay, will keep any length of time without spoiling, does not heat, but gradually decomposes into a peat-like substance, and is in fine order to apply to the land. By-and-by we shall expect to see our farmers drawing their baled hay to market and returning with full loads of baled manure. The circle of production will then be complete.

Cooling off suddenly when haled seeds many of our farmers' youths to an early tomb. It is often a matter of surprise that so many farmers' boys and girls die of consumption. It is thought that abundant exercise in the open air is directly opposed to that disease. So it is, but judgment and knowledge of the laws of health are essential to the preservation of health under any circumstances. When overheated cool off slowly, never in a strong draught of air. Gently fanning, especially if the face is wet with cold water, will soon produce a delightful coolness, which leaves no disagreeable results.—Ec. Paper.

DOMESTIC.

ODDS AND ENDS.

BY THEO

As many fashions have originated to hide deformities, so hard times suggest many ideas to use up the odds and ends. Nothing need be destroyed because it is old-fashioned and as fashion is so capricious, in a large family, it takes a little time and thought, by some of its members, to gather up the fragments that nothing be lost. The bright-colored woollen dresses which were worn a few years ago, now laid aside for more sombre hues, make very soft, warm comfortables, which tacked with pieces of plain cloth or merino look very pretty and will last a number of years. It takes a little time, but it pays.

I have trained my English and German ivy all around my windows and pictures, with the wire taken from old-fashioned bonnets, and used the other material for making pin-cushions, which look fresh and new for the dressing-table when the house is cleaned. Newspapers are very useful when laid in several thicknesses on your floor before putting down a nice carpet, and especially where a room is over a cellar, as they preserve a carpet from damp and mildew.

The pipe tin boxes that we get from the grocers, with spices, baking powder, and mustard, can be made into very useful and pretty ornaments, the large size, covered with silver or gilt card-board with a pattern worked on with bright-colored zephyr make tasteful holders for flowers, autumn leaves or lamp-lighters.

The smaller sizes are handy to make sponge-cake in. Fruit and oyster cans when painted, look well on a flower-stand, for plants or trailing vines and I find them useful for starting seeds and cuttings, in at this season, and have often wondered why so many persons wasted them.

Then the various colored envelopes and bright colored papers that are usually burned make lamp-lighters to put in the holders mentioned above.

Paper-collar-boxes are also very useful for many purposes. By taking three of the same size and sewing them together diagonally, you can form a wall-basket for some nook in your dressing-room. Then take one, fill it with wool or any material you wish, and crochet a cover for it of worsted and you will find it convenient for hair-pins. I save every paste-board box, as I make candied fruit in summer, of peaches, cherries, etc. then pack them with layers of sugar. Large pasteboard boxes can be used as the foundation for brackets, which are very handsome made of silver or gilt card-board, with patterns worked on them in basket-stitch of worsted or chenille.

When persons live where game is plentiful, it is quite an important item to save the feathers and wings, especially the pretty mottled wings of partridges. Lay them out flat when fresh with a flat-iron on them and they will dry smoothly. Then by placing them in successive rows, you can form the most beautiful bracket or ornament that your fancy suggests. I never saw one until I planted one for myself, which has been much admired. The short feathers of birds can be sewed in rows on cloth for lamp-mats.

These few hints may appear somewhat insignificant to my readers, but "economy is wealth." It takes time to exercise one's genius, it also affords entertainment, and makes home pleasant and cheerful.—Christian Weekly.

CHEESE CAQUETTES.—One large chicken, or two medium-sized ones, chopped fine. Put two ounces of butter in a pan, with two well-filled tablespoons of flour, one pint cream, and then season with salt, pepper and herbs to your taste. Let this mixture boil until it reaches the consistency of thick custard. Take off the fire, then stir into it as much of the chopped meat as is requisite to make it thick enough so that when cold it can be formed into balls. Also stir in the yolk of one egg. When cold enough make in croquettes and dip each one in a batter made of one egg, then roll in fine bread crumbs and fry in hot butter.

TO STREW CELERY.—Clean the heads thoroughly. Take off the coarse outer leaves, cut in small pieces, and stew in a little broth. When tender, add some rich cream a little flour and butter, enough to thicken the cream. Season with pepper, salt and a little nutmeg, if that is agreeable.

GRAND SNAKE.—One cup sugar, one of butter, one of molasses, the egg, two even teaspoons ginger and cream of tartar, and small teaspoonful of soda dissolved in three tablespoonfuls of milk—or water will answer. Put the soda in after all else is well beaten together, and mix hard with flour.

STRAW CAKE.—Two teaspoonfuls flour, one teaspoonful coffee, one, three eggs, half a cup sugar and yolk of egg well together. Beat the whites to a stiff froth, then add them to sugar, and lastly the flour and flavaning to suit the taste. This makes one loaf.