THE PERENNIAL BORDER FOR A SMALL YARD

The back yard of a small lot that had to be filled in with such soil as could be obtained, was made to support a very satisfactory perennial border. The soil was enriched with suitable fertilizer and devoted to the growing of ordinary garden vegetables for the first two years. During this time perennial borders in the neighborhood were studied from time to time and specimens of desirable plants were secured in the autumn, when gardeners were overhauling their borders. The perennial border was located between the boundary fence and the walk which separated it from the vegetable section of the garden. The border was made five and a half feet wide and it extended a length of fifty feet. Climbing roses, and Alleghany vine were made to cover the fence, which was the ordinary board variety. This formed an effective background to the border itself. The border was planted in three irregular rows set out in conformity with the recognized principles for perennial borders. The back row consisted of holiyhocks, delphinium, perennial heliotrope and helianthus. The next irregular row was made up of phlox, Oriental poppy, anemone, Shasta daisy and columbine, intermingled here and there with iris, canterbury bells, sweet William, and lilies. The irregular front row consisted of daisies, pinks, alyssum, stone crops and pansies. Here and there small groups of annuals were set in for the purpose of securing a perpetual show of bloom in colors to blend most effectively with the perennials near them. At the side of each Oriental poppy, which becomes shabby after the period of blooming is over, was planted a low-growing canna, which comes into bloom in the middle of the season and continues until frost arrives in the autumn. A good effect is produced in such a border by the scattering of Shirley poppy seed throughout the whole length of the border. One or two ten-cent packages of seed scattered promiscuohsly early in the spring will produce an abundance of plants. As the bed is cultivated during the season the seedling poppies are preserved in sufficient numbers to cast a brilliant hue over the border for several weeks during the season. Sweet alyssum is also useful for this purpose. Some of the plants in such a border will be less pleasing than others. These should be marked with a label as the season advances, so as to be identified for removal in the autumn. The keeping of a perennial border is an interesting feature of gardening as it affords constant opportunity for improvement by the introduction of newer and better varieties from season to season. —Canadian Horticultural Council.

My way of oiling harness is to use and then the leather is oiled all the plenty of coal-oil in a pan and scrub way through so that the rain can not the straps with a brush as I pull them get in for a long time. The coal-oil through the oil. That will soften them will not hurt the leather unless it gets and clean the dirt and old oil out of wet before the grease is put on. If it the sewing and pores of the leather gets wet before the grease is on the Then after a few hours of drying I leather will be very hard and you put on the harness-oil with a brush. would have to use more coal-oil to get Next day I wipe the oil off with a rag, it soft again.—Elmer E. Jones.

The Dairy

In recent years we have learned that the cows should be in good condition at the time of freshening. During the dry period the cow stores energy and tissue for turning into milk after the calf has arrived. This cannot be done unless she has more feed than is necessary for mere subsistence. Now that we have learned how to treat for milk fever, the final argument for starving cows before calving is removed.

Good dairy cows are nervous creatures, so we exercise more care with them than with the draft mare or the sow, particularly at this time of freshening. A comfortable box stall is provided for the occasion. When the calf comes in cold weather, we also provide the mother with a blanket, lest she be chilled. Her udder is not milked completely dry for two days after the calf is born. Where necessary, the afterbirth is removed inside of forty-eight hours, and the cow is not permitted to eat it, as is too generally allowed.

While we take pains, at this time, to have the cows in good flesh, special attention is given to the matter of feeding for the first two or three weeks after calving. Over-feeding is dangerous. The first day or two only some warm water, a portion of scalded bran or oats, and some good hay is all that will be necessary or desirable. Gradually the cow is then worked onto full feed, which sometimes requires three weeks.

Keep the Bull Full of Good Feed.

Proper feeding of the herd bull is just as important as the proper feeding of the milk cows. Too often the spoiled or musty hay is put to one side to be fed to the bull. Again, we find dairymen giving the waste feed, left by other animals, to the herd sire. All of which is a poor practice.

The herd bull old enough for service should be fed enough to keep him in a vigorous, healthy condition, free from excess fat. Most breeders feed their regular grain mixture to the bull at the rate of four to ten pounds daily, depending upon the size and condition of the animal and the variety of roughage. A good grain mixture to use consists of three parts ground corn, three parts ground oats, three parts wheat bran, and one part linseed oil meal. Ground oats are especially good for bulls. Cottonseed meal is generally looked upon with disfavor, since it may cause impotency.

Legume hay, whenever available, should be fed at the rate of ten to twenty pounds a day. Legumes are high in protein and mineral matter and will keep the heavily used bull in good condition. When non-legume roughages, such as timothy hay, fodder or straw, are fed, it is necessary to feed more linseed oil meal than with the legume roughages.

Breeders differ as to the breeding powers of the bull when silage is fed. Silage fed in large amounts will have a tendency to distend the p aunch, which is very undesirable. However, ten to fifteen pounds of silage daily may be safely fed along with other roughages.

It is essential that the herd bull receive plenty of water, and where it has been found necessary to keep the bull in a stall or pen, he should be watered at least twice a day.

The value and importance of using good bulls is essential to the economical development of the dairy industry. The present use of good bulls is entirely too limited and when a good bull is once in service, his usefulness may be prolonged for an indefinite period through proper feeding and plenty of exercise.

Total Exports of Dairy Products.

Including butter, cheese, milk powder and condensed, canned and preserved milk, Canada exported in the twelve months ending January, 1925, according to official statistics compiled at Ottawa and issued by the Dept. of Agriculture, 193,913,982 lbs. valued at $36,293,205 compared with 174,126,779 lbs. valued at $33,108,526 in the preceding twelve months. The exports of butter in the year ending January, 1925, were 22,539,327 lbs. worth $8,043,881 and of cheese 122,768,700 lbs. worth $22,823,056. In the previous year the exports were: butter 12,982,658 lbs. valued at $4,839,801; cheese 115,337,900 lbs. valued at $23,174,594. It will be noticed that in each instance the quantities were greater in 1924-5 than in 1923-4.

Control of Root Rot in Canning Peas.

Experiments were carried on by the Dept. of Botany of the O. A. C. during 1924 investigating the cause and means of control of Root Rot of Peas. Disease resistant strains give promise of relief from this fungus pest. From the mass of varieties and strains tested Reces 330 and Houl have proven highly resistant, in some cases producing nine-fold, while ordinary seed proved a complete failure. These strains are being multiplied and it is hoped within a comparatively short time to have available for the growers of canning peas in Ontario seed of a strain of canning peas having the qualities sought for by the canner, and being at the same time resistant to root rot and blight.

Efficient Farming

CORRECT FEED FOR BABY CHICKS.

Whether a person is raising birds for show-room purposes, or for meat, or egg production, or a combination of both, the degree of his success depends upon the early growth made by the birds. He can make or break a bird during the first three months of its life.

And with the increasing number of incubator-hatched chicks each year there comes to man the feeding duties of the foster parent. Usually this means only teaching the young chicks to eat, for whether they are reared by man or hen the necessity still remains of supplying them with the right kinds of feed in the proper amounts to get them started and keep them growing.

Teaching the young chicks to eat is simple enough. Nature provides them with this instinct, and as soon as they are rested from the labors of breaking through the shell they go to picking at pieces of egg-shell, or the toes of one another. All man has to do is to provide attractively-colored feed on cardboard or metal containers for a day or so and the feeding problem is solved. The noise of the more adventurous ones first starting to eat from these hard containers attracts the other chicks and soon the entire brood is eating. After a day or two of this it is a simple matter to change over to feeding in the litter to provide exercise for another natural instinct—scratching.

TOO EARLY FEEDING CAUSES TROUBLE.

The last step in incubation is the absorption of the yolk of the egg by the formed chick. This yolk is taken into the digestive system of the chick and is Nature's method of supplying it with its first food. It will last for several days, and therefore it is not necessary to feed the young chicks immediately after they are hatched. In fact, feeding too early is often the cause of much stomach trouble. The young chick is not able to handle other feed until this yolk is entirely digested. It is therefore unwise to feed a chick until it is 48 to 72 hours old.

When feeding does start, the poultryman must supply certain nutrients if maximum growth is to be expected. He must feed a balanced ration, which means supplying these various forms of feed in the proportions needed or used by the chick in the formation of its body. These nutrients are water, ash, protein, carbohydrates and fats.

The principle and most expensive of these feed nutrients is protein. Protein is found in all meats, in eggs, in milk and a little is found in grains. Proteins in themselves are made up of amino acids. There are quite a few amino acids—numbering close to 20. The chick, in its body formation and its growth of feathers, requires the presence of all of these amino acids. If any are lacking the growth will be stunted, just as building operations will cease when there are plenty of brick on hand and no mortar.

NOT ENOUGH PROTEIN IN GRAINS.

Grains do not contain all of these necessary amino acids, and the proteins they do contain are not in the proportion needed by the chick. It is therefore essential that other protein be added. This is usually supplied from an animal source, as such proteins contain the amino acids lacking in grain.

The most useful forms of such animal proteins are infertile eggs, buttermilk or skim-milk, tankage, or powdered meat scrap. The lactic acid of milk aids digestion, and it contains one of the necessary growth-producing vitamines. It is almost essential that all growing chicks receive milk in one form or another. There is no other farm stock that will give better returns from milk as a feed than the growing chick. To get a chick to drink milk it is often necessary to dip its bill in the milk as soon as taken from the incubator. Withholding water from the chick for the first week will also help to teach it to drink milk. Dried buttermilk in the mash or semi-solid buttermilk undiluted are good forms for chicks.

Infertile eggs should be mixed with a mash feed and fed raw. Cooking eggs lowers the amount of food value that a chick receives from them. Be careful, though, that the young birds do not receive too much of such rich food at any one time. The tankage and powdered meat scrap are both fed in the mash.

FEED BOTH GRAIN AND MASH.

Chicks should be fed both a grain and a mash ration in addition to having access to buttermilk or skimmilk at all times. The grain ration supplies the necessary carbohydrates and fats.

The mash should be made so as to add the protein and ash nutrients lacking in the grain. The first week they should receive only the grain and milk. Feeding little and often is far better than feeding large amounts. Overfeeding causes diarrhoea, as Nature did not intend the digestive system to be forced too early.

Grain fed sparingly five times a day the first week will not overcrowd them and will get them ready for the mash feed the second week. A good grain feed should consist of six parts of cracked corn, two parts of cracked wheat, two parts of any grain, not fibrous.

A mash feed is fed to force the birds. The birds do not have to grind such feeds and hence the mash is digested more rapidly, and this has a tendency to increase growth. Mash should not be fed before the second week and should be started gradually. After a week or so of gradual feeding the birds should have access to a dry mash at all times.

In the mash should be fed the animal protein and also the bone-forming nutrients. Animal bone-meal is the best form in which to supply this ash. A good mash for growing chicks is: Bran, 30 pounds; shorts, 30 pounds; cornmeal, 25 pounds; tankage or meat scrap, 10 pounds; bone-meal, 5 pounds.

IN A NUTSHELL.

In summing up, one may say the following rules are necessary for success in feeding chicks:

1. Do not feed until after 48 hours old.
2. Feed some form of milk.
3. Feed often and little the first week.
4. Feed no mash until the second week and then start feeding it gradually.
5. Have all nutrients lacking in the grain feed, such as animal protein, bone and ash, etc., present in the mash.
6. Supply plenty of green feed after the fourth day and supply plenty of fresh water after they have learned to drink milk.
7. Keep all feed and water utensils clean.
8. Feed clean fresh feed free from mold and let the birds run out as much as the weather will permit.

Enriching Garden Soil.

A dressing of barnyard manure to about one-half or one-third of the garden each year, is claimed by the Superintendent and Head Gardener of the Dominion Experimental Farm at Brandon, Man., in their joint bulletin on Prairie gardening, to be advantageous. The manure should be thoroughly rotted before applying. Coarse strawy manure opens and dries out the soil and is likely to bring in weed seeds. Manure that has been piled for at least a year, is heavy, solid, full of moisture, with the straw rotted and the weed seeds killed, is best for the garden. This should be applied evenly over the surface of the land and plowed or dug in. Under special circumstances some benefit might be derived, say our authorities, from the use of special fertilizers, but if farmyard manure and good cultivation are made use of the owner of the home garden may safely ignore commercial fertilizers.

Dairy Exports to Germany.

In January of this year Canada exported 235,300 lbs. of butter and 112,700 lbs. of cheese to Germany, being more butter than to any other country. To Belgium in January, Canada exported 77,422 lbs. of butter and 301,800 lbs. of cheese, that country ranking second to Germany as regards butter and second to Great Britain as regards cheese.