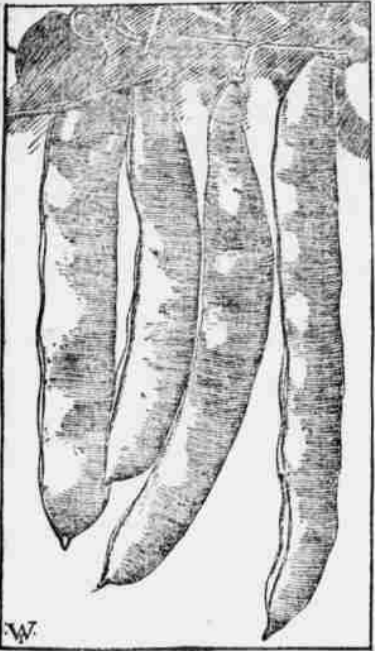


FARM AND GARDEN

BUSH BEANS.

They May Be Had All Summer by Making Frequent Plantings.

If you want tender, brittle pods during the hot summer months, make small plantings every week or ten days and use only the better varieties, suggests a writer in the Garden Magazine. If cultivation is thorough and constant, the plants will grow for a longer period, and if the pods are gathered



FINE STRING BEANS.

ered as soon as large enough for use the bearing period will be prolonged for a much longer period.

For the best quality in the green podded bush beans I suggest the Stringless Green Pod, Extra Early Red Valentine, Blue Pod Butter and the Extra Early Refugee, which come on in the order named, but for the home garden it is usually more convenient to fix on some one favorite variety and to keep up a supply by frequent plantings.

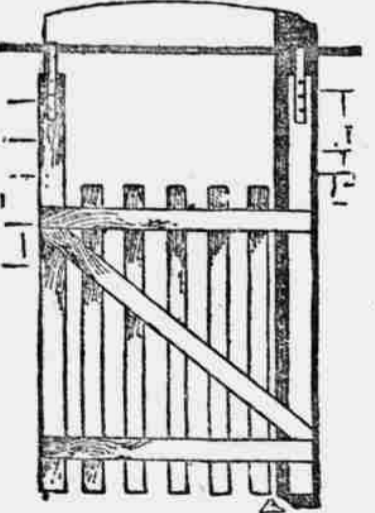
In addition to the green podded sorts, make plantings, one or more, of the yellow or wax podded varieties, or these may be chosen in preference to the green pods, as they do better during the warm summer season and the pods are less liable to rust than from the early spring plantings. Of the yellow podded sorts, the New Brittle Wax, Round Pod Kidney Wax, Pencil Pod Black Wax and Refugee Stringless Wax are the best of the round podded type. Some other new varieties have larger and more meaty pods, but are not as uniform in shape or as attractive in appearance. New White Wax is the best in quality and is the most meaty yellow variety with a flat pod.

Bad Ventilation.

Few dairy farmers really understand what good ventilation means. It is a common thing to see a hay chute left open over the cows with the impression that it will create a current of air to ventilate the stable. The fact is, a stable, to be ventilated, must have the air drawn off from near the floor. This is where the bad air accumulates. A shaft that simply takes the best air from near the ceiling is a damage. Foul air is from 10 to 20 per cent heavier than pure air. The only system of ventilation that is worth the name will admit pure air from outdoors near the ceiling and draw off the foul air from near the floor, says Farm Press. Anything short of this should not be called ventilating the stable.

An Alley Gate.

The idea of a sliding alley gate is suggested by Home and Farm in a very handy arrangement for open passageways into feed mangers or other



ALLEY GATE.

parts of the barn where the ordinary door is not desired. The rod should be extended at one or both sides of the opening, as may be most convenient to the builder, for sliding the gate.

Meat Food For Poultry.

Meat food is supplied in the form of ground green bone, cooked offal (such as beef heads, etc.) and in the form of animal meal (beef scrap). Ground bone is perhaps the best and cheapest where one has a bone mill; where not, beef heads, livers, etc., give good results, says a writer in American Agriculturist. Animal meal, dried blood, etc., are good foods, but in many cases are more expensive than the others mentioned. However, they are very useful during the hot weather, when it is almost impossible to use fresh meat. Partially decayed meat should not be used, as it is not healthful.

CHILDREN'S CRUSADE.

One of the Most Remarkable Events in the World's History.

There is one episode of the history of the crusades that few people are familiar with, an episode so unique, so strange, so pathetic, so tragic withal, that it stands out as a conspicuous illustration of the fever of enthusiasm then pervading Europe. It is called the "children's crusade," and as one of the most remarkable events in history it is well worth telling you about.

It was in the summer of 1212. Two boy prophets, so called, each about twelve years of age, were preaching a crusade, not of arms, but of prayer, against the Saracens. One of them was Stephen of Cloyes, in France; the other, Nicholas of Cologne, in Germany. They claimed to be inspired by heaven to raise each an army of children to go to the Holy Land and convert the infidels to Christianity. The sea, they said, would open, as it once did for the Israelites, and permit them to pass over to Palestine with dry feet.

Their preaching caused almost a frenzy of excitement among the children, and soon two armies of them started for the Holy Land, one from Cologne, the other from Vendome, France. The German army numbered about 40,000 and the French about 30,000.

During the passage over the Alps nearly 50,000 of the German children succumbed to cold and exposure, and 10,000 of the French children died between Vendome and Marseilles.

The German army had marched in two divisions, the first under the famous Nicholas and the second under a boy whose name has not been preserved. When Nicholas arrived at Genoa and found that the sea did not open to permit their passage he disbanded his army. Many of the children were sent back home by the kind-hearted Genoese, but others pressed on to Pisa and took passage by ship for Palestine.

Meanwhile the army under the unknown boy had reached Brindisi, whence they departed for the Holy Land, and about 5,000 of the French children were shipped from Marseilles for the same destination.

But alas for the fatuous preaching of the boy prophets and the equally fatuous credulity of their followers! All the children that survived the voyage were sold as slaves to the Turks, and of the 70,000 that started out on that crusade of prayer at least 50,000 were never heard of by their parents afterward.

What must have been the condition of the public mind when 70,000 children, nearly all of them less than twelve years of age, were permitted to take part in so wild and fatal an enterprise!—Chicago News.

Matrimonial Commandments.

Matrimony has ten commandments.

These were studied out by Theodore Parker shortly before the day of his wedding. They took the form of ten beautiful resolutions which he inscribed in his journal. They were as follows:

First.—Never, except for the best reasons, to oppose my wife's will.

Second.—To discharge all duties for her sake freely.

Third.—Never to loolk.

Fourth.—Never to look cross at her.

Fifth.—Never to worry her with commandments.

Sixth.—To promote her piety.

Seventh.—To bear her burdens.

Eighth.—To overlook her foibles.

Ninth.—To save, cherish and forever defend her.

Tenth.—To remember her always in my prayers. Thus, God willing, we shall be blessed.

An Unfortunate Synonym.

An American girl who studied in Germany tells of a German girl who was studying English and who used to write letters in English to her parents. One day the German girl handed a letter to her, saying:

"Here is the letter which I have written to my mother. I want you to read it over and see if it is properly written."

The letter was all right, excepting the closing phrase, which read as follows:

"God pickle and keep you."

An investigation proved that the young German woman in looking for a synonym for "preserve" had come across "pickle."

A Hopeless Case.

"Yes," said the business man, "I have given up trying to collect that little bill from Bilkins. You see, he is a big, muscular fellow, and he used to throw my collectors out."

"Then why didn't you employ a woman collector?" inquired a fellow tradesman. "He couldn't do that to a woman."

"That's what I thought, so I got one and sent her around, but she never came back."

"Why not?"

"He married her."—Spare Moments

LUMBAGO.

Diet and Treatment For This Distressing Affection.

This distressingly painful affection is muscular rheumatism located in the large muscles of the loin.

The attack usually comes on quite suddenly, sometimes seizing the sufferer in the middle of a walk without the slightest premonition. The pain is intense and is increased by the slightest motion of the body.

The victim of lumbago or any other form of muscular rheumatism becomes painfully aware of the fact, which perhaps he had not before realized, of the great flexibility of the body and of the intimate relation between the different parts of the body, for it seems impossible for him to make any motion whatever of the head or of the arms without feeling a sharp twinge in the back. He dare not turn in bed, lift his head or even raise his arms, for every movement seems to be originated and performed by the sore back muscles.

There may be a little swelling of the affected region, but usually there is no external sign of the great well of misery lying just beneath the skin. The pain lasts a few days or a week and may then disappear as rapidly as it came, although there is often considerable soreness or an occasional twinge for a day or two.

Lumbago may be distinguished from pain in the back due to other causes by the fact that the agony is extreme whenever the slightest movement is made and is absent or at least bearable when the patient lies perfectly quiet in bed, and also that the muscles are tender when gently squeezed. The affection is more common in men than in women and attacks adults chiefly, the muscular rheumatism of children taking the form usually of wryneck. Why this should be so it is difficult to say.

Lumbago occurs more frequently in gouty persons, although that is no explanation, since we do not know why the loins should suffer in gouty individuals more than the muscles of the neck.

In mild cases the drinking of an abundance of water to which some baking soda is added may give a measure of relief. Gentle rubbing of the parts with a cloth dipped in ammonia and hot water will often mitigate the suffering, and after the rubbing a cloth wet with this solution may be laid on the parts and covered with a hot water bottle.

The diet should be light, without meat or highly seasoned food and especially without beef tea or meat broths of any kind. The bowels should be kept open.

One who is subject to lumbago should be careful to avoid a chill and should live frugally, drinking only plain water or milk.

Sometimes the attacks are prevented or made less frequent by the wearing of a broad flannel belt over the underclothing.

Kaiser Made Him One.

One day the kaiser was walking in civilian dress when he was recognized by a corporal. The emperor, noticing that the man's face wore a troubled expression, questioned him. For some time the corporal hesitated to reply, but at last confessed that he was in love with the daughter of his sergeant major, but the marriage was impossible since the girl's father would have none less than a sergeant as a son-in-law.

"Do you really love the girl?" inquired the kaiser.

"With all my heart," was the reply.

"Very well, then; go and tell your sergeant major that the kaiser has made you a sergeant."—Cleveland Leader.

Parliamentary Humor.

On one occasion when Mr. Gladstone was beginning to give up the lead in the house of commons to Sir William Harcourt it was noticed by the members that he left the house at the dinner hour, and Sir William Harcourt led for the rest of the sitting. Mr. Darling one evening drove Sir William to fury on failing to elicit a definite answer to an inquiry by casually observing in the course of his speech, "I have noticed that lately the party opposite, adopting an ancient precedent, has set up a greater light to rule the day and a lesser light to rule the night."

A Popular Delusion.

"Did you read this, dear?" said Mrs. Grigsby to Orlando the other night. "It's a strange case. A harmless lunatic imagines that he's a grain of corn and will not go into the yard lest a chicken eat him. Isn't it an odd delusion?"

"Oh, the world's full of such delusions, dear," said Grigsby. "I know a harmless lunatic who seems to imagine that she's a piece of cheese, and she will fly from a room when a mouse enters it for fear the little creature will devour her."—London Tit-Bits.

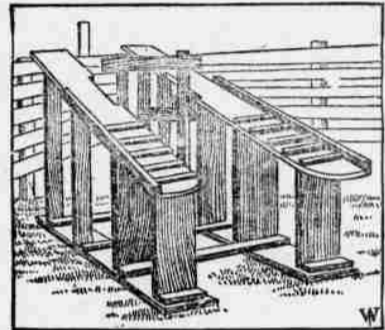


A speaker at a recent dairymen's meeting said: To make the dairy profitable we should have cows that produce not less than 6,000 pounds of milk per year. An average of 8,000 pounds can easily be reached if all poor cows are disposed of and if we will use a strictly dairy breed. We can no more make dairying profitable with beef bred cows than we can best a race horse on the track with a drafter. We should feed and care for the cow in such a way as to produce a large amount of milk. We cannot produce clean milk from dirty cows, and from dirty milk we can't make a first class article, be it butter or cheese.

It is unfair for creameries to pay for all cream alike. This makes people indifferent in regard to keeping the cream in good condition. Creameries should co-operate with the farmers. It is to the farmer's interest to patronize the home creamery. If the central creamery could kill the home creamery it could arrange prices to suit itself. Creameries and cream gatherers or buyers should exercise the utmost cleanliness so to set a good example. Farmers should have a neat small room or building for separating and keeping the cream. Keep it away from the kitchen, where the cooking odors give it an undesirable flavor.

Making a Breeding Rack.

The breeding rack shown in the illustration from Hoard's Dairyman is used in dairy work at the University of Illinois. A breeding rack of this kind must be strong and well braced to stand the strain. Cleats placed upon the surface of planks at the side are



A BREEDING RACK.

important. The frame must be long and narrow and the adjustable stanchion so placed that the occupant can be held well back. The inside dimensions of the stanchion in this rack are 17 by 25 inches, but this may be varied to suit the circumstances. The stanchion is supported by 2 by 4 inch pieces attached to each side and resting upon the horizontal 2 by 4 inches of the frame. With a series of holes in the latter and a hole in each of the pieces attached to the stanchion it may be set and held at any desired length by using long bolts dropped loosely into the holes. Loose dirt or cinders at the rear of the rack that can be filled in or dug out quickly will be found convenient.

Moisture Content in Butter.

The most talked of topic among butter men is that of moisture content, due largely to the fact that the internal revenue department has been very active during the past year in getting after those creameries that have exceeded the limit set by law. Some experiments have recently been completed by the South Carolina experiment station on moisture control, and among the conclusions reached are the following:

Butter churned moderately soft and then overchurned in the wash water to particles the size of hens' eggs averaged a trifle higher in water content than normally churned butter.

The melting point of butter fat appears to have no influence on the water content of butter.

The water content of butter made from very rich cream and medium rich cream is the same.

Brine salting increases the water content of butter about 1 per cent over dry salting.

The average of fifteen trials shows that butter worked two minutes contains 64 per cent more water than butter worked four minutes.

Normal cream overchurned in half a churnful of wash water to particles the size of hens' eggs increased the water content in the butter only slightly.

Stay With One Breed.

Whether your stock is Jersey, Guernsey, Holstein, Brown Swiss or any other class of cattle, stick to your text and, once having made up your mind what you want, keep on in that line with a pure bred bull, and you will have a uniform herd of some kind and as a general proposition a better grade of milkers than to jump from one breed to another each succeeding season. You get a reputation in a short time of having a herd of Jerseys, Holsteins, Swiss or some other breed of cattle even if you never had a pure bred female on the place provided you use a sire of the same breed for two or three succeeding generations.

Cleaning Dairy Utensils.

Probably the most common source of contamination and infection of milk is from the buckets, cans, strainers, bottles and other vessels used for its reception and transportation. Every dairyman should be provided with apparatus for thoroughly scalding and sterilizing his milk utensils after each use. Cans should be carefully washed with a solution of soap or lye, a brush being used to remove the dirt and special care being taken to remove the dirt from the seams. After this washing a thorough scalding is necessary.

RAISING THE CALF.

What to Feed to Keep It Strong and Thrifty.

For the past four years the Kansas experiment station has been experimenting in raising calves on skim milk and its substitutes, and among the conclusions reached are the following: Strong, thrifty calves cannot be expected from cows that have received poor feed and care previous to calving time.

Cows should be fed bone and muscle food while carrying their calves—oats, bran and clover or alfalfa.

Cows to produce strong calves should go dry from six to eight weeks before calving.

They should be given succulent food, as grass, roots or silage, for three or four weeks before calving to keep them in a laxative, healthy condition.

The calf should not be permitted to drop in a cold or damp place.

If the cow's udder is caked and feverish milk often, but don't milk perfectly dry.

Feed the calf whole milk for the first ten days or two weeks, then gradually change to skim milk and directly after feeding milk put a little ground feed into the calf's mouth, which will soon teach him to eat.

After he has learned to eat the change to skim milk may be quite rapid and the allowance may be increased considerably.

A great difference was found in the individual capacity of calves, yet as a general rule the calf from three to five weeks old may be fed from ten to twelve pounds of milk daily.

The milk should always be fed warm and sweet. Next to overfeeding, there was nothing that was found to cause greater difficulty with hand fed calves than feeding sweet milk one meal and sour the next. They also found that it was not practicable to feed unpasteurized skim milk from the creamery.

When calves are fed for future usefulness in the dairy care should be taken not to get them too fat. In the early part of the feeding period, when the calves are receiving a large amount of skim milk and comparatively little grain, there is not much danger of getting them too fat, but as the grain ration increases it may be necessary to feed more nitrogenous grain. This can be done by changing a part of the corn for oats, bran or oilmeal whenever the calves appear too fleshy.

They found that considerable loss was sustained in putting calves to pasture, provided the change from dry feed to grass was not made gradually.

Dairy Feeds.

The dairy farmer who has to buy feed should look to the interests of his soil when considering the feed he needs. Bran has a greater manurial value than any other of the common dairy feeds, and next to it is clover. The farmer who buys bran from the wheatfields of other states is buying some of the very best fertility of those states. When he buys clover from his neighbor's farm he is buying some of the very cream from his soil. Besides receiving a profit from the feed in the form of milk and butter he will also more than receive its first cost in the amount it increases the plant food elements in the manure.

SILOS AND SILAGE.

In an address on silos at a dairymen's meeting a speaker said: I ran short of ensilage for the cows in the spring, and while I had pretty good hay it did not take the place of silage. The cows always looked for something they did not get, and in the milk pail one could notice a difference too. As long as I had ensilage they had better appetite for hay also. Never before in winter were my cows in such thrifty condition. In conclusion I would say in regard to building a silo that it is the best thing I ever did. The only thing I regret is that I did not have it years ago.

The Silage Needed.

According to a recognized authority, each cow should have an allowance of about four tons of silage in the seven months it is usually fed. It is therefore easy to determine by the number of cattle to be subsisted how much silage it is necessary to preserve. A silo reasonably deep is the best preservative of its contents and the most economical, but it is held by good authority that it is desirable to keep the structure within reasonable bounds, and when the structure goes beyond that it is better to have two or more silos.

Cost of Filling Silos.

The cost of filling silos is carefully gone over in farmers' bulletin 292 from investigations made on thirty-one farms in Wisconsin and Michigan. The average yield of silage on the whole number of farms was about nine tons. The average cost of filling the silos was 64 cents, the range being from 46 to 86 cents. The average cost per acre for putting away the corn was \$5.98. The difference in cost was not wholly due to management, but was partly explained by long hauls, lodged corn or accidents to machinery.

Value of the Silo.

The silo will enable the dairy farmer to keep his cows six months at less cost than it is possible for him to keep them six months in the summer on blue grass, says Kimball's Dairy Farmer. It will provide a succulent feed for the cows in winter and make it possible for them to give as good a flow of milk with the mercury at 29 degrees below as they will give in June and produce it at less cost. It will enable the man with a small farm to double the size of his herd, and he will be able to winter his cows on the fodder from his cornfield, which has always been practically a waste product.

BABY BEEF.

What the Stockman Must Feed to Secure the Highest Quality.

To get baby beef of highest quality it must of course be fed and reared in a certain way, says Professor Thomas Shaw. It is more influenced as to its juiciness by the feeding than by anything else. If baby beef is to possess the highest quality of tenderness and juiciness, animals must be given a certain proportion of succulent food.

The succulence may be furnished by grass in the summer. In the winter the two more important sources of succulence are corn silage and field roots. But even when the animals are grazing they must be well supplied with meal, as making baby beef is a continual system of pushing forward from the day of birth until the animals are ready for the block.

Corn silage is the cheaper source of succulence as compared with roots for winter feeding, but it is not in any sense the safer food of the two. Should the silage possess much acidity, which it sometimes does when put up too immature, it is not nearly so valuable as when sweet and well matured. As much as twenty pounds daily may be fed to a steer when of the age of twelve to eighteen months. It makes an excellent medium with which to mix the meal given to them under feeding, which is in a sense forced.

But when field roots are fed they also may be used as the medium in which the meal may be mixed. They may be fed either in the sliced or in the pulped form. When fed freely they give to the meat a juiciness and a favor such as can be given from no other kind of food. There is also an element of safety about it that comes with no other kind of food. It would be a difficult matter to injure the digestion of a cattle beast by feeding it too much roots, provided the roots had become sufficiently matured. When fed roots freely in the winter and then carried on with grain and suitable grass during the summer, the quality of the meat from animals so young, if well finished, would be simply superb.

Does It Pay to Raise Mules?

It certainly does, as there never was a time when the mule did not command a fair cash price, and as long as the world continues to grow cotton, corn and sugar and work the mines we must have the mule, and just as long as these industries are kept up the mule will command a better price than any other of the horse kind compared to what it costs to raise them, says a writer in the New Southwest. There is no animal so easy and safe to raise as the mule. He is less subject to diseases than any other animal, he is easily fattened, he is easily broken to work, and when it comes to selling him he is always ready for the cash. It does not take a high standard bred registered mare to raise a good mule. Of course the better the mare as a rule the better the mule, but any good roamy fifteen and a half to sixteen and a quarter hands and 1,050 to 1,300 pound mare bred to a good jack will raise a good mule. All kinds of mules sell, and sell well, but the good kind sell much higher and are just as easy to raise if you will use the right kind of jacks and a good average mare.

Feeding Sheep For Market.

In feeding sheep for market avoid feeding corn in excess. I think that is one of the great faults of our sheep feeders—they feed too much of the carbonaceous ration, says a New York breeder. It is perhaps true that one can put a flock of sheep into the barn and make a greater gain per day for a reasonable time with corn than with any other kind of food, but one that is not making lean meat, simply mutton tallow. A much better food will be oats, bran, oil cake, something of that kind which will produce a better quality of meat.

THE SHEPHERD.

Selling the good ewes because prices are tempting is tearing down rather than building up your flock.

Sheep should not be caught by clutching handfuls of their wool, as this injures the fleece, to say nothing of giving pain.

As soon as the lambs will eat grain they should be given a creep, so that they can pass in an adjoining pen away from the mothers and be allowed to eat grain at will.

A fender should be placed over the trough, so that the lambs cannot jump in and soil the feed.

Don't forget to guard the sheep at night. The dog is an epicure and knows what good lamb is.

As a supplementary ration to corn stover for sheep a mixture of one-half oilmeal and one-half bran, a half pound to each sheep daily, is hard to beat.

Sheep shearing is not a difficult operation, and any man who is willing can readily learn the art. Sheep shearing machines are popular, practicable and profitable.

The profits from the flock are not always dependent upon the number of sheep you keep, but rather on the kind you keep.

Cull at shearing time and again at weaning time.

If you dip your sheep at the proper season in some good dip, you will not have to dip so deep into your pocket when the day for setting your feed bill comes along, says American Sheep Breeder.

As a sheep dip the following is recommended by a breeder: Add forty pounds of soft soap to ten gallons of boiling water and while boiling add one pound of carbolic acid. This may then be thinned down with 100 gallons of cold water. This quantity is sufficient for dipping seventy-five sheep.