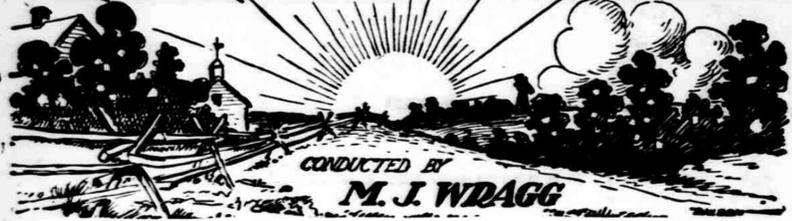


# FARM ORCHARD AND GARDEN



[Mr. Wragg invites contributions of any new ideas that readers of this department may wish to present, and would be pleased to answer correspondents desiring information on subjects discussed. Address: M. J. Wragg, Waukegan or Des Moines, Iowa.]

Mr. Rogers of Iowa writes: "Please tell me through the columns of your department how to protect climbing roses in the winter? I have never been able to keep mine from freezing to the ground. The only rose that stands is the Crimson Rambler. I have wrapped my roses in burlap, but they always die down."

We have received the same inquiry, in substance, from several other readers of this department, regarding the protecting of hardy and half-hardy roses. We have always found that where the bushes can be laid down flat on the ground and held firm by a weight of some kind, that fresh earth makes the best and most natural covering that the rose can have. But where it is difficult to bend the bush down we have then employed with good success such covering as old potato and tomato vines, corn stalks, etc., in fact any covering is good that does not lie solid together so as to smother the bush. There are more roses killed each year by covering them up too heavy with raw manure or wet straw, which lays close together and during the early spring completely smothers the plant. This can be avoided by using a more open covering as suggested.

Where the bushes are quite heavy and old a few spades of dirt can be taken away from one side and the bush gently pressed down. This should be done before freezing weather, and a rainy day is preferable, as the bushes are more pliable. In the latitude of Iowa and Nebraska it is the safest to lay down and cover all varieties of roses. While there are some varieties that are hardy, yet by covering they will come out in the spring with renewed vigor, which will many times repay for the labor.

## THE BREEDING BUSINESS.

So many people who are not fully posted in the breeding business are now busily pointing to the apparent decline in prices and saying, "I told you so." I know the business would soon be overdone. Yes, he knew all about it. This evergreen is ever the most ready to give advice. He will give you pointers on the proper method of conducting the government as readily as he will tell you in what phase of the moon your potatoes should be planted. He can see no further than to-day's sunrise and sunset. He does not seem to realize that pure-bred stock, sold even at present prices, is making the breeder good money. Breeding stock, even in the poorest sales, is selling for from three to four times as much as would the best grades. There is very little more expense in handling blooded stock than in handling common grade stuff, and when a yearling bull will sell for more than a two or three-year-old fat-tender steer, it must appeal to any thinking man as sheer folly to claim that it does not pay. Even the young, unbred heifers are selling for more money than the fattened steer, while the cow with calf at side, and well along in calf, will bring twice as much.

To be sure we cannot all be breeders, but by far the greater portion have no desire or taste for the detail work that is always necessary in a breeding business. This reason alone will always make plenty of room for the man with push and enterprise. No man who has a decided taste for business need hesitate an instant. He can begin now, knowing positively that he is getting in on the ground floor—prices will not go lower. To any man who contemplates at some time going into the business we would say, begin now, and get as much good stock as your money will buy. We don't believe in running into debt to any great extent for your breeding stock, but buy all you can handle and give reasonable care, then when you have something to sell you will have no trouble in getting good prices.

"When the winter comes and green leaves have gone. While hedges and fields are bare; Then the evergreen stands in its glory of green. An emblem to save from despair. The beautiful bird loves its sheltering boughs. The children its bright Christmas green; When Santa Claus comes with his pack of new toys He crowneth the evergreen queen."

It is well to occasionally look around in the apple orchard for tent caterpillars. The eggs are laid in bunches and upon close inspection can easily be found. They should be destroyed. If this is not done, be sure to kill the tent caterpillars when they hatch out. Don't allow them to destroy the leaves on the apple trees, as this will not only injure the crop this year, but it will seriously cripple the trees for next year's work.

The revenue obtained by the government by the taxation of sugar, some \$28,000,000 per annum, is the nearest to robbing and oppressing the poor man that this government has ever gone. The poor need sugar more than do the rich. If this tax was removed it would be possible for the poor man to get twenty-eight or thirty pounds of sugar for a dollar.

A farmer is known by the tools he uses. Where one's plows, mowers, drills, harvesters and wagons are kept housed from the rain and storm, he can be classed with the thrifty list.—Exchange.

## FEEDS AND FEEDING.

The secret of successful stock-raising or dairying is cheap feeds and correct feeding. Every dairyman is confronted by the question of what to feed, and not only of what to feed but when to feed. The answer to these questions may differ somewhat in different localities, but the general principles of feeding are the same wherever feed is grown and cows are fed. We must aim to grow our own feeds as the man that produces milk for the cheese factory or creamery can not afford to make a practice of buying feed. He may, however, make exceptions to this rule in times of scarcity, or he may occasionally find it profitable to buy feeds of a nitrogenous character to help balance what might otherwise be a one-sided ration. The constantly increasing demands of those who furnish milk for the city trade and who have little or no land on which to grow their feeds are taking the by-products of the milk at prices beyond the reach of those who feed for butter or cheese.

It is often said that if a man can make a profit above the market price on the material that he grows on his own farm by feeding it to his live stock he ought then to be able to make a profit on the feed that can be bought in the market at the same price. This may seem like a logical conclusion, but it is one of the theories that do not always work out satisfactorily in practice. The man who buys his feed at the mercy of a fluctuating market. He comes into competition with the men who get six cents per quart for their milk. He is forced, while getting protein for his cows in the by-products of the mills, to bid against the men who put up breakfast food at ten cents a pound. When we grow our own feed a much more economical employment of labor can be made, as the labor required for milking morning and night can be used during the day to grow and care for this feed. All freights and commissions are cut out. Growing one's feed on the farm is good farming, while buying feed is too much like hand-to-mouth farming.

It seems unfortunate that the bumble bee, which is so useful, if not, indeed, absolutely necessary, in the fertilization of red clover, is not more carefully protected. When a nest of bumble bees is overturned with the plow, the practice is almost universal of robbing these of their honey, which probably means their destruction because of want of food. The aim should be to foster in every legitimate way the presence of such an insect. It has been proved beyond a doubt that unless red clover is fertilized through the medium of insects, it will not bear seed. It is unfortunate that the common honey bee is unable to serve this purpose.

## EVERGREENS IN SOUTHWESTERN NEBRASKA.

A correspondent from southwestern Nebraska writes: "I expect to set out some evergreens for a windbreak. Scotch pines grow the fastest. Would it pay to plant red cedar five feet apart and cut out every other one when they get big enough for posts? The place I wish to grow them is about forty feet wide and between some fruit trees set out last spring and a walnut grove fifteen to twenty feet high. How close to the fruit trees would you set the evergreens?"

We would keep twenty or twenty-five feet away from the fruit trees and would not put them on the north side of the orchard. The south or east side of the orchard would probably do no harm. Red cedar are slow growers. There are two varieties of red cedar trees in Nebraska. One of them came in from the east and one from the west. The eastern variety will grow faster than the western and is better adapted to the climate. For post timber the red cedar would be the best by far. For windbreaks the Scotch pine would be the best. Spring is the best time to plant.

In an experiment conducted at the Michigan station the following grain ration was found to be the most economical among several foods fed to lambs at that station: Corn, 4 parts; bran, 2 parts; oil meal, 1; dried beet pulp, 7. It is encouraging to know that dried beet pulp can be thus used as it makes practicable the feeding of a product which it is not always easy to handle in the undried form.

## JAPANESE MORNING GLORY.

A writer on horticulture recommends the Japanese morning glory as a window vine for winter blooming. If it can be successfully grown in-doors, what a charming window decoration it must make, with its unique foliage and brilliant flowers! We once planted some seeds of the common morning glory in a hanging basket, training the young vines up the cords by which the basket was suspended. They were in bloom at Christmas and were beautiful, although both flowers and foliage were not more than half as large as when grown out of doors.

There are always people to suggest that disaster is coming to any branch of business they do not like. There are some folks who cannot bear to look a sheep in the face who think the boom has been too big to last. That is true, but there is more reason consumed in this country this year than last, and there will be a demand for more next year than this. Then, too, we should produce a surplus to send abroad.

## THE SHEEP'S PLACE.

The sheep has not found its place on many farms. The reason for this is that the farmer himself has not known the value of the sheep in the first place and in the next place he has had an idea that a person has to be endowed with some peculiarities that fit him for managing a flock of sheep. The sheep is all right in his place, and, like a good many other things, all wrong out of place. We believe there is a place on almost every farm for a few sheep, although there are farms much more calculated to keep them than others, says "The Homestead."

There are two places on every farm that sheep could be kept to advantage, and one of them is in the stubble field after harvest. After the small grain has been taken off there is more or less waste in the grain that has been harvested that will be gleaned by sheep, and then again, there are many weeds which spring up and bring forth seed to assist in giving trouble to the husbandman. Sheep will eat every weed, gather all the lost heads and do a general cleaning up before the field is plowed for another crop. To note the good a flock may do in this way, one ought to try them. Another place where sheep can be employed to advantage is in the growing corn, and especially will they be appreciated where poor cultivation has been practiced. Here again they are the very best of gleaners and cleaners. They eat off almost every weed which is liable to grow in a corn field, and they do comparatively little damage to the growing corn.

In brush and timber land they again show what they can do in the way of cleaning up the undergrowth. They are not browsers in the sense that a goat is, but they will eat off almost all kinds of brush land where they are in daily search of food. In doing this cleaning up about the fields and pastures of the farm the flock never leaves a foot of ground any poorer than it finds it. The fertility that comes from their grazing is so wisely and completely distributed that good comes in the way of fertility immediately.

"It's do the chores at morning. And do the chores at night. The rooster gives us warning. Before a peep of light To bring the lamps and bustle With feed for every one. All farmer folks must hustle Till every chore is done."

## SIDE LINES.

The lines of demarcation between farming and trucking are rapidly vanishing, and to-day it is difficult to say where the former leaves off and the latter begins. On a trip lately through a country formerly entirely devoted to the raising of cereal crops and stock growing, the changes were amazing, and crops for the canning factories were largely taking the places of the old enterprises. What is implied by these changes? Simply that the old line farming will more and more take up these side lines and thus the changes will come.

The canning industries have come to stay and are calling loudly for these changes. Not only this, but the ever-increasing city demands for the raw products must be met, and it is up to the tillers of the soil to be alert and active, and so be able to successfully meet these new conditions.

The young man with brains and pluck, who is not afraid of hard work, will succeed anywhere. Experience will tell him what he is fitted for. Don't be a square peg in a round hole. Do a little thinking on your own account.

## SOIL FOR BULBS.

All bulbs like a rich, well-drained mellow soil. They will not do well in heavy soils, and a great deal of moisture about their roots is fatal to them. Therefore in selecting a place for them choose one naturally well drained, if possible. If it is not sure of good natural drainage, set about providing a means of escape for surplus water by excavating the soil to the depth of at least a foot—eighteen inches would be better—and filling in at the bottom of the excavation with four to six inches of broken pottery, brick, old cans—anything, in fact, which will not decay readily and allow the soil above it to settle back into its former hardness, and thus become as retentive of moisture as it was before anything was done with it.

Has that new silo been ordered yet? If not, why not? Can it be possible that you are not yet fully convinced that you need a silo and that the sooner you get it the quicker you will begin to realize more profit out of your corn crop? We hope that you are not one of the doubters when it comes to deciding about owning a silo. They are surely no longer an experiment, and the rapid increase in number every year speaks well for their real value to the farmer.

We would again suggest to our readers the great beauty and attractiveness to be found in a bed of tulips in early spring time. Blooming as they do before any foliage is out on the trees, and when often the grass has scarcely turned green, they usher in the spring with the most brilliant and beautiful foretaste of summer that can be imagined. They should be planted at once in order to secure the best results.

Lean, well-formed sows make better breeders than those that are too much disposed to run to fat.

# DAIRY NOTES

## Tying Cows in Stalls.

Most farmers still hold to the stanchions as a means of keeping their cows in the stable. It is surprising to know that some of the most advanced farmers have not yet abandoned the use of the stanchion. A lecturer on one of the institute forces was delivering a lecture on cows and condemned the use of stanchions, advocating the more modern methods of cow tying. In the discussion that followed some one in the audience asked him the question, "What method do you use in tying the cows?" He replied, "I still use the stanchion; I'm an old fogey." This shows the force of habit even in those that are well instructed as to scientific dairying. This man said that both he and his cows were used to the stanchion, and had been all their lives, and he had not got around to making any change. If this is so with those that are the leaders in dairy thought, we need not be surprised if the great mass of farmers of the country still hold to the methods that science condemns. In a rigid stanchion the animal cannot lie down with ease and cannot reach the parts of her body that she can reach under the more modern arrangement. The stalls that are now generally advocated and used by the men who are making a science of dairying, are those that give the cow a large amount of freedom. One of these methods is to have the stall narrow enough to prevent the cow from turning around in it. A chain behind her prevents her from backing out of the stall. Her head is left entirely free. The cow, when she lies down, naturally turns her head when she composes herself for sleep. The modern stalls permit the cow great freedom in this respect. Another system of cow tying is to fasten them with a chain around the neck, the chain being fastened to a ring that runs up and down on the center pole. One has but to visit the state experiment station to see a great variety of methods demonstrated in the fastening of cows. All these, however, serve one general purpose, that of making the cow comfortable. So far as we know the rigid stanchions are not used in any experiment station, or on any farms conducted by scientific dairymen—James Addison, Bureau Co., Ill., in Farmers' Review.

## A Permanent Silo.

A farmer came into the Farmers' Review office the other day and began to discuss the matter of silos. He said that in his locality some cheap silos had been put up years ago and that, as a consequence, the farmers there were doubtful as to whether or not they had made any money out of the enterprise. He declared that if the farmers had to repair their silo every year and in ten years buy a new silo it was hard to figure out a profit over the old way of doing business. We called his attention to the fact that the Farmers' Review has never advocated the building of the temporary cheap silos. A silo should be built to last a life time and be so perfectly constructed that it will need no repairs at any time, and will not need to be rebuilt. There are many such silos in use to-day. H. B. Gurler told the writer that all his silos would last longer than a life time and that he would not think of building any other kind. There are to-day being constructed silos that will last during several life-times. It is probable that the metal silos will prove to be very enduring, requiring only to receive a coat of tar or other liquid dressing once in several years. Whatever the kind put up see that it is not one that will tumble down if neglected. The time of the farmer is so fully occupied that he must adjust all his work, so far as possible, to get along without more attention than necessary. An implement, building or fence built to remain and last with little attention is a labor-saving device. Build a permanent silo.—Farmers' Review.

## Bacterial Content of Milk.

Many of our large cities have established a rule that no sweet milk sold shall contain over a certain number of bacteria per cubic centimeter. As these bacteria consist largely of lactic acid ferments, the natural ferments of the milk, and which produce sourness, it has been asked why such a rule should be enforced. It may be recognized that lactic acid ferments are not disease germs. Nevertheless, there is a good reason behind the act of any city board of health that makes such a rule. All physicians know that the milk given to children, especially very young children, must be sweet if it is to be digestible. The juices of the stomach of the child are primarily adapted to the digestion of whole sweet milk. While sour milk may be more easily digested by the stomach of the mature person, this is not true of babies. It is a well known fact that babies in American cities are fed to a very large extent on cow's milk. Wherever this milk is found to be sour, or well on the way to becoming sour, intestinal disturbances result when it is used for babies. Wherever the boards of health have vigorously enforced the rule that only sweet milk shall be sold, there has been a material reduction in sickness among infants, and consequently a lower death rate. While it may be a hardship to the people not to be able to purchase skim milk and sour milk, yet the general result of this precaution is good.

## Swine of the Nations.

According to recent statistics the hogs of the leading nations of the world number as follows: United States, 47 million; Germany, 17 million; Russia, 11 million; Hungary, 7 million; Canada, 3 million; Poland, 2 million; Roumania, 2 million; Belgium, Denmark, Australia, and the Netherlands, 1 million each; all other countries, together with the above, 117 million.

The fruit raiser cannot afford to ignore the latest information in the science of fruit raising. Our experiment stations are bringing to light many valuable facts.

# HORTICULTURE

## Lime in the Garden Soil.

I have read in papers that there is sufficient lime in the soil to last for a long time, and that men need not consider the lime in their estimates of the dressings to be used on the land. I notice, however, that in some soils the lime has washed down to a layer several feet deep in the soil and that in such cases sorrel grows on the land, especially if it is a hillside. There was one farm on which I lived where the soil was underlain at a depth of about two feet by a layer of stones that had all the appearance of having been rounded by the action of water on the shore of some prehistoric ocean. The lime in the soil had washed down and acted as a mortar to hold these stones together. The top soil was a light sandy loam, but no water seemed able to get through that layer of rock and lime. All the wells in the vicinity were very hard, the water containing large quantities of lime. The soil above did not do well for the clovers or garden truck till we had made an application of lime. So I am convinced that the chemist cannot tell us exactly how much lime is in the soil and available for use. I believe land should be limed anyway if the owner does not know that it does not need lime. Of course if red clover and sweet clover grow on it abundantly, it does not need additional lime, for these plants will not thrive in soil that is acid or where lime is deficient.—Mabel Goodchild, Clark Co., Ill., in Farmers' Review.

## Tillage and Fruit Growing.

A thoroughly pulverized soil is as advantageous to the fruit orchard or fruit plantation as to any other form of crop production. This fact has been learned but slowly by the American farmers. The first orchards were permitted to fight their own way in the ocean of greensward and if they lived so much the better for the orchardist. In the beginning cane fruits were little cultivated. The wild ones grew without cultivation and it was argued that Nature in that way pointed out the profitable method of producing fruit. Little by little it was demonstrated that better crops of fruits could be produced if the fruit plants were grown a considerable distance apart and the ground was kept free from other vegetable growths. Tillage for the fruit plantation that is to be used should begin in the fall if possible, and the ground should be plowed several times. In that way the grasses and weeds decay, and so do all the weeds that have sprung up after the first plowing. It is sometimes advisable to plow the ground very late in the fall. In old fruit plantations that have not been deeply cultivated it is not advisable to plow the ground late in the fall, as this will increase the chances of winter killing or spring killing.

## Pruning Points.

Prof. W. M. Munson says: Since in large fruits one spur bears one fruit, the alternate bearing of individual spurs will continue and it will be necessary to remove all of the fruit from individual spurs, thereby allowing a portion of the spurs to bear one year and others the next. It is doubtful, however, if any amount of thinning can produce an annual bearing habit unless the trees receive other necessary good care. It is probable that the better course to pursue in attempting to get fruit every year, is to change the bearing year of entire plants through a part of the orchard and allow these to bear one year and others the next year. It is not to be understood that these results will always follow, but the tendency is in the direction indicated. The season in which pruning is done has some influence on fruit bearing since winter pruning tends to produce wood, while summer pruning does not. The healing of the wound is, however, but slightly affected by the season in which the cut is made.

## Land Suitable for Truck Gardens.

The man that would choose soil suitable for gardening must not select cold clay soil that is flat nor must he select steep clay uplands. With such soils it is about impossible to do much in gardening. A good many farmers that have such soils try to raise garden truck on them, believing that the only thing they need to do is to apply manure and cultivate thoroughly. That is true for some kinds of crops, but not those that come within the list of market garden crops. Level ground and soil of a sandy loam character are necessary for the growing of garden truck. Such soil warms up quickly in the spring, and at all times when it is not frozen lets in the air and the heat. The manure that is put into it is quickly found by the minute rootlets, which ramify everywhere through it.

## Habits and Fruit Trees.

It seems absurd to suppose that fruit trees form habits as do human beings, but that seems to be the case. Professor Bailey and others that have looked into the matter declare that it is their opinion that if a tree begins to bear crops every other year it will continue to do so; and no amount of pruning or thinning will change that habit after it is once established. If, however, the orchardist is able by pruning and thinning to start the tree as an annual bearer it will remain that kind of a bearer. We have yet to see this theory thoroughly demonstrated, but on the face of things it appears to be true.

## Deep Preparation of Land.

It pays to plow the land deep for any kind of fruit before the plants that are to bear that fruit are set out. On land that has never been plowed deeply, the roots of plants hold close to the surface. Perhaps they get enough food in this way; but it is much to their detriment in dry seasons at least, and the roots near the surface interfere with the after cultivation of the ground. A mellow soil invites the roots to strike deep instead of running along the surface of the ground.

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