

FARM ORCHARD AND GARDEN



CONDUCTED BY
M. J. WRAGG

(Mr. Wragg invites contributions of any kind from those who desire to see their work published in this department. He will be pleased to answer correspondents desiring information on subjects discussed. All communications should be addressed to M. J. Wragg, Waukegan, or Des Moines, Iowa.)

Mr. Simons of Osceola, Ia., writes: "I am a renter. Have been farming 160 acres for five years. I pay cash rent, \$4 per acre. Have accumulated considerable stock about me. Is it advisable to continue renting, or go where land is cheaper and buy? I see that you travel considerable and write on agricultural subjects. Would you please give me your opinion on the above?"

We answer this through this department, for we find in attending the different farmers' institutes throughout the West that there is in some parts a general feeling of discontent. High rents, high taxes and a disposition on the part of many landlords to not keep up their places is making the better class of tenants look up farms for themselves, where they can build their own homes.

We believe that any farmer who has got a few hundred dollars ahead can not afford under ordinary circumstances to pay from \$4 to \$7 per acre rent. If he lives close to a good market where he can carry on truck farming and market everything he grows directly to the consumer, he might then make ends meet, but it will require the greatest business sagacity and management for the ordinary tenant to pay expenses and have anything left. We have lately made a trip through the Northwest, visiting some of the newer sections of North-western Iowa and South Dakota, especially those sections that have been adjacent to the C. M. & St. P. R. R. We personally know several renters who left central Iowa only a few years ago and went to South Dakota. They were barely able to make the first payment on their land, but now after two or three years many of them have paid nearly out on their farms, and none of them but are in better condition financially than they would have been if they had remained renters.

When one sees so much undeveloped country Northwest and Southwest, also, we would advise any renter who is able to get a few hundred dollars to make the chance and get a piece of land of his own and commence farming and stock-raising on his own account. And in addition to this think of the great blessing of having your own home, your own hearthstone, your own vine and fig tree.

LAYING DOWN PEACH TREES.

In parts of Colorado peach trees are laid down and covered with soil to protect against winter. This practice may well be followed in other localities where peaches are not altogether hardy, and where they are apt to be destroyed by late spring frosts. To be most successful, the practice of laying down is begun on trees the first year they are set in the orchard. Some time in November, after the leaves have fallen, a circle of earth about four feet in diameter is removed from around the tree. Water is then poured in and the tree worked back and forth until the roots are loosened and the tree bent to the ground in the direction of least resistance. The branches are then tied together, and the tree covered with burlap, held in place with earth. A light layer of earth is then thrown over the tree. As the blossoms begin to open the following spring the covering is loosened to admit of light and air. The blossoms are exposed to the sun gradually and after all danger of frost is considered over they are raised in an upright position and held in place by a couple of crops. In placing the trees in the upright position the ground is again watered, and when wet enough the trees are raised without difficulty. Old trees cannot be successfully handled in this manner. The practice must be begun with the young trees and continued. It is stated that the process seems to be in no way detrimental to the health of the tree, since they live as long and bear as much fruit according to the size of the top as those grown in peach sections.

The seed investigations of the Department of Agriculture have shown that large quantities of trefol and other practically worthless seed are being imported for the adulteration of alfalfa and other seeds. About 450,000 pounds of Canadian blue grass seed are imported, the chief use of which is to adulterate the higher priced Kentucky blue grass seed.

COVER CROPS.

We have just been into a neighbor's fruit garden, where he sowed spring rye and oats during the month of September. At the present time it is 12 inches high and completely covers the ground with a perfect matting. Of course as soon as hard freezing comes it will dispose of the most of it, but we were surprised to see what a perfect covering it made, and the value of the same as a fertilizer, and protecting the ground from the wind and sun during the fall and winter will be of great value. It is this that will hold and keep in store all the nitrogen and have it ready so that the plants in the spring can take it up.

There are said to be 800 varieties of weeds and grasses growing on our western plains of which horses will eat some 25, cattle 37 and sheep about 125. Goats will not only eat all of the 800, including loco weed and sage brush, but they will eat the whole plant, root and branch. An educated goat on a weedy farm would be a fine thing for a lazy man.

PREPARE FOR WINTER.

We have now had our first heavy frost, and most all tender vegetation is killed, and now is the time to get busy about the home and look after getting everything in readiness for winter. See that your dahlias have all been topped and the bulbs dried and removed to the cellar. If you have some potatoes to store, we would advise putting the dahlia bulbs in the bottom of the potato bin. We have found this an admirable way to keep them. Have all gladioli bulbs removed and dried and placed in a dry, warm cellar. If you are wanting to keep your geraniums through and do not care to pot them, dig them up, trim them by the roots and hang them up in the cellar. The chrysanthemums should be dug and potted and taken in for winter bloom. Also look after the tender shrubbery and see that it is pruned back and properly cared for. Some can be protected by putting heavy mulch about the roots. Others by wrapping with straw. If the grass on the lawn is not as heavy as it should be, cover with a light mulch of well-rotted manure. You will find this greatly pays for the labor. See that all grape vines are pruned as soon as the leaves fall and laid down with a weight on top. Tender raspberry and blackberry vines can be handled the same way. Remember that moisture is one of the requisites for ideal winter protection, and this can be made by mounding up with earth, and covering the vines if they are not too large. If you have neglected cutting out the old wood from the raspberry patch, see that this is done now. All diseased canes with anthracnose should be removed. Put a load of manure on the rhubarb. See that the asparagus has a top dressing also. The vines on the veranda, such as clematis, climbing roses and Akebia, should be taken down soon and given a little covering of earth or some other covering. If you want for winter use are out in the field, remove them to some dry place, setting only well matured specimens if you want them to keep. We have also kept ours in a woodhouse. If you have neglected putting out cuttings of shrubs and fruit plants, do it now.

BREAD AN' MILK.

Brown bread an' milk an' sweet apple, with a spoonful o' cream, ye know, is there anything else ye think of that sets you a-singing so?

Ye can see the bins in the seller, where the round-eyes used to be. An' the small supper-a-cookin' in the steppin' o' mother's tea.

An' the cows at the barn to greet ye, an' the chickens an' the pigs were finished in the wood an' the stables in an' with the ducks an' the geese, an' the pigs that were all a-slow.

A passin' your bowl to father for the spoonful o' cream, ye know.

Perhaps what they call their menus may be a sight more fit for a dinner table. But I wouldn't give up the memory for all o' their fuss and show. O' the bread an' milk an' sweet apple that set in the long ago.

Selected.

A good foot in a horse must be in proportion to the size of the animal—sound and sloping gently from the coronet to the ground. The shell and sole must be thick and solid; hard, but not brittle; deep and strong, especially at the quarters. The heel should be wide as well as deep, with a full, elastic frog.

TREES OF WONDERFUL SIZE.

The Youth's Companion is authority for the statement that on the island of Cos (or Kos), in the Mediterranean, near the coast of Asia Minor, there stands an oak twenty-five feet in diameter, and which a German scientist believes to be two thousand nine hundred years old.

The largest tree in the United States, according to the Christian Advocate (New York), is said to be at the foot of Mount Etna, and is called "The Chestnut Tree of a Hundred Horses." Its name came from the report that Queen Jane of Aragon, with her principal nobility, took refuge from a violent storm under its branches. The trunk is 204 feet in circumference. This would mean nearly 68 feet in diameter, about four rods—well high incredible.

FEEDING THE WORK HORSE.

Many horses are injured by kindred which leads to overfeeding, says John George of Illinois. This is particularly true in summer time. The horse gets home hot and dry, is given all the feed he will eat, then led to the trough where he fills up on water and goes to work again. In this condition he is not in shape to eat much nor can he digest it. What he needs is first a small drink of cool water, and then rest, followed in half an hour with a feed of oats and corn.

A horse that drinks a large amount of water soon after eating washes the food out of his stomach into the intestines, where it is not digested, but ferments, gives off much gas and causes more or less disturbance and distress. When Saturday night comes the feed should be cut down half, both in summer and winter, and feed a bran mash with a few carrots in winter and a run in pasture in summer. This cools out the system and the horse is in better shape for another week of hard work.

Hay should not be fed at noon. It is bulky, not easily digested, particularly when the horse is at work. Many successful farmers feed half the hay ration at night and divide the remainder equally between morning and noon. If the horse is at hard work, be particular to choose old hay and sound clean grain.

CLEAN UP THE ORCHARD.

Between now and freezing weather an effort should be made to clean up the rubbish that has gathered through the summer in the orchard. There are always quantities of diseased fruit that may be found in the orchard, which if permitted to remain during the winter will start many fungous diseases in the spring. One of the most troublesome diseases which affect the plum orchard is the brown rot. Most of the fruit attacked by this disease drops off, although some of it will dry up and hang on the tree over winter. Twigs and leaves may also be attacked by it, hence the importance of cleaning up the plum orchard thoroughly. All diseased fruit and twigs should be removed and destroyed, and if trees have been so badly damaged as to be half dead from this cause, they should be destroyed.

The black rot is another deadly fungous disease to which the plum is subject, but it may be kept under control if affected parts are removed with a knife as soon as detected. If, however, this disease has not been attended to and the trees are very badly affected, the entire tree should be removed and burned, root and branch, but in case there are only a few knots on the trees, they may be pruned out and destroyed, and the tree preserved for one or two seasons, or perhaps longer. Remember that black rot not only affects plum, but cherry trees as well. We have made it a rule in our orchard every year at this time to use the rake and the pruning knife and gather up all the rubbish and burn it. By this process we have been enabled to keep the orchard quite free from fungous diseases and we believe that we have reduced the attacks of insect pests to a minimum.

As between the man who has a fat farm, from which the water cannot run off, and the one with a hilly farm from which the water escapes in too much of a hurry taking seed and fertility with it, there is not much to choose. The man with the gently rolling farm is the one who can laugh at wet seasons.

STORED APPLES AND MOISTURE.

A merchant who has considerable experience in storing apples says: "We never had our apples keep so well as the winter we stored them in a cellar in which water stood the whole time. I'll admit it was rather hard on the barrels, but the fruit came out the latter part of the winter looking as fresh and hard as the day it was packed. We always head our barrels of winter fruit in the field, believing that the nearer air tight we can keep them the less they will shrink. I remember a few years ago we got caught in a snow squall with a half dozen barrels of Baldwins not headed, but as they were the last we kept tight on, even though they were quite wet, and then marked them so as to see how they would. Well, they kept the best of any."

If the horses are troubled with tender feet or contracted hoofs, they should be allowed to stand upon an earth floor, or the stalls should be filled from four to six inches deep with loam, which would be leveled as the feet wear holes in it. If they can have their shoes taken off every few weeks when not busy, so much the better.

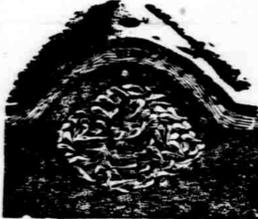
FRUIT AND PLANT NOVELTIES.

As a rule we do not advise spending large sums of money for new varieties of any kinds of fruit or plant. More of them prove failures than successes. Yet an up-to-date fruit-grower cannot afford to ignore them entirely. What does best for one may prove a disappointment to a neighbor. Even a pet variety may be condemned by three-fourths of all the growers who try it. Every grower should keep posted on the most promising varieties, by planting a few on his own place. It will pay to do this, particularly with the small fruits. Considerable fruit will be taken from trial beds. The grower knows better what to plant next season.

AGRICULTURE



Pits for Storage of Roots.
At this time of the year the farmer is considering how he may best store his roots and tubers for the winter. It is desirable to store potatoes, beets, turnips, carrots and the like that they will remain in a temperature just above the freezing point. In the cellar it is frequently so warm that the different roots lose much moisture and in some cases begin to grow. A regular cold storage house in which the temperature is kept at about the freezing point is the desirable thing, but to most of our farmers this is an impossibility. Most of our farms are situated at a considerable distance from such houses, and the hauling would be so much trouble that the use



of said storage houses by the general farmer is out of the question. Moreover the farmer wants to use these roots during the winter and cannot afford to make a trip frequently to a cold storage house.

The men in charge of the sugar beet factories have found pits to be the most economical method of storing beets. In our first cut it is shown the style of pit used in Nebraska. The cut shows the transverse section of a long row of beets stored in a long pit. This section represents, as to the beets, about four feet in width and height. The layer of dirt over them is six inches thick. Above the first layer of beets is a layer of straw, and above that is a layer of two inches of dirt. This last layer is put on only on the approach of cold weather. At V there is a ventilating hole about one foot in diameter. It must be remembered that this method, though successful



in Nebraska, must be modified for places further north where the layers of dirt and straw would have to be thicker.

Our second illustration shows the pits used for the storage of sugar beets in Wisconsin. A greater degree of cold and otherwise adverse conditions must be provided against. The beets are placed in a deep and wide furrow, which may be as long as needed. The pile here shown is six feet wide and three feet high. Above the beets are piled eighteen inches of earth. At V is shown a piece of ventilating pipe. These beets are placed in the row every six feet. This pile is left open while the beets are sweating, but can be closed after that process is completed.

Temperature of Soil.

One great field of experimentation is as yet almost untouched, and this is the field of soil temperatures. In some of the experiment stations of the world an apparatus is in use for determining soil temperatures and it proves very valuable in giving data from which the experimenters can determine the effect of cold and heat on plant production. Any farmer can make such an apparatus by using a thermometer and attaching to it any instrument that will permit it to be inserted to any desirable depth. The farmer who studies his soil will find it to his advantage to know the different temperatures of the different fields of his farm. He will be surprised to find out how greatly these temperatures vary. The temperature controls to a very great extent the germination of seed in the soil. If the seed is put into a cold soil it will, in many cases, rot before sprouting. This is especially true of the corn seed. Many a farmer has planted valuable seed corn in soil that was yet too cold to allow of germination and has afterwards had to replant the field at great loss to himself.

Generally cold soils are damp soils or wet soils. But this is not always the case, as sometimes the cold soils are simply heavy clay soils. The farmer who has the wet soil is deceived by the drying out of the surface. The water present keeps down the temperature immediately under the surface, and when the seed is put in the result is that it is lost. The matter of soil temperature is one that has, up to this time, been considered generally by the work of the scientists; but the time is coming when every progressive farmer will make this study for himself.

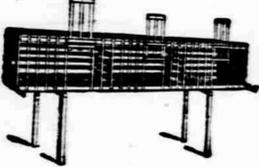
Calcium and Magnesium. Both soil elements which enter into the composition of plants. They are, however, so generally distributed in the soil that they are little considered by the students of plant nutrition. One German expressed a theory that there must be a certain ratio maintained between the calcium and magnesium in the soil or plants would not grow. Some German scientists have recently completed some experiments to determine the truth of this expressed opinion, and it was found that there was no needed relation between the presence of calcium and magnesium. Hence what is known as the "Loew hypothesis" is discredited.

In the northern part of Illinois many of the farmers are turning to seedling peaches as being the only kind that will stand the winter conditions.

POULTRY



Fattening Fowls.
Herewith we show the kind of crate in use in the Ontario station for the fattening of fowls. The crate is easily built and every farmer can construct one or have it constructed at slight cost. If the experiment stations find it profitable to have such helps, surely the general farmer cannot afford not to have one. In such a crate his birds can be kept from moving around, and that is the desirable thing to do when fowls are being prepared for the market. The fatter the fowl the better the price that can be realized for it. Fat costs the farmer less than lean meat and the more of it he puts on his fowls the better. It is not a deception of the public, for the public understands the case and is willing



to pay a fancy price for lean meat that is in connection with fat; for it is recognized that a lean bird is a tough bird. If at all mature, and that a fat bird is a tender bird. The public likes juicy, tender meat and is willing to pay for fat to be thrown away, if in that way the tender flesh can be secured. The shorter the time of fattening the tenderer is the flesh of the bird, according to a popular belief. The idea may be correct or not, but the fact remains that the people want fat birds, and that this is the only kind of a bird that the farmer can sell with much profit to himself. Between now and the New Year there will be millions of chickens sold from our farm and many of them will be sold off in a half-fat condition. That doesn't pay. Fatten the birds.

Fall Care of Poultry.

At this time of year, when the nights are much colder than the days, the poultry will require a good deal more attention than they required in the summer when the weather was uniform. Birds do not get cold if exposed to the air, but if exposed to air blowing on them alternately. If the blast is continuously cold the feathers of the birds become compacted to protect the flesh of the birds. But when a warm current blows the feathers open up and so do the pores of the skin. Then a sudden blast of cold air strikes under the feathers and affects the surface of the body. Thence come colds, and often the way is made clear for an attack of roup.

Have the poultry house so arranged that the air can come in only at a single orifice if the ventilation is to be in that way. A curtain of cotton cloth over the orifice will stop the currents of air and it will pass through slowly. The birds will not then be affected. The writer visited the Maine station a few months ago and found that the poultry houses are arranged so that the birds in the day time are protected from the open air only by such a curtain.

It might be added, however, that the sleeping places of the birds are on the opposite side of the house from the large window and that there is another curtain, which is left down in front of the roosts at night, and this further protects the birds from possible drafts. This place is called a roosting closet, and is near the low roof.

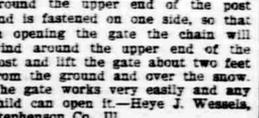
A little extra care now will prevent the necessity for the doctoring of poultry diseases later on. Also at this time begin to feed either a daily ration of soft food or chopped fruit. Do not let the fowls become constipated by giving them a heavy grain ration after they have been feeding very largely on green stuff in the garden and on worms and bugs. Now that new corn is becoming plentiful the temptation always exists to feed it to excess. It is probable that new corn is harder to digest than old corn.

Washing Fowls.

Perhaps it is not known generally that before exhibition fowls are thoroughly washed. One exhibitor tells the writer that he places his hens in a tub of water and rubs soap into their feathers. He works this soap and water into the feathers until they are covered with the lather. This not only takes away the dirt, but effectually destroys all the mites and lice. Some of these show men go to the length of using chamois skins on the birds. Every scale on the legs is examined, and if found to have dirt under them, the soap suds is worked under the scales and the dirt worked out by the use of a small sliver of wood. Cleanliness counts for a great deal in the show room.

A Handy Gate.

I have a gate that is very handy at any time of the year, but especially so in winter. It is simple and easy to make. The gate is a common panel hinged to a post eight feet above the ground. The lower hinge is a strap of iron bent around the post, and between this the panel is bolted. The upper hinge is made of heavy wire woven between the boards of the panel and run up to a chain one foot in length which goes



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