

Efficient Farming

STORING THE ROOT CROPS FOR WINTER.

One of the most important problems now facing the home gardener is how best to store the crops that were grown specially for winter and early spring use. Generally speaking, all root crops can be safely stored in a frost-proof cellar, and will, if properly cared for, keep in first-class condition until spring. A temperature of a few degrees above the freezing point is ideal, but in the majority of home cellars a low point is not easily maintained. The result is that unless some varieties of roots are not covered with soil to exclude the warmer air, and so keep them from shriveling, they become useless in a comparatively short time.

When putting away potatoes we use boxes that hold from one to two bushels. In receptacles of this size the tubers are readily overhauled from time to time, for if one potato goes bad those surrounding it are very soon affected also; hence the necessity for going over them occasionally. The coolest part of the cellar must be reserved for them, and light must be excluded, otherwise the tubers will become green and the flavor thereby be greatly impaired. Of course this can be obviated by covering the boxes with sacks or other material to exclude all light.

LOOK OUT FOR VENTILATION. If the cellar has a dirt floor the majority of the root crops will appreciate the small quantity of moisture that will always be present, provided the furnace is at such a distance that the temperature will never be unduly high. In the latter case it will be well to erect a partition, thus providing a separate room for the vegetables, and as far removed from the furnace as possible. The partition need not be made of expensive material, but a separate storage room is absolutely necessary if vegetables are to be kept in first-class condition for any length of time.

Ventilation is of the greatest importance. The storage room should be provided with at least one window; if there are two, so much better. During all mild weather the windows should be left partly open, but safely screened with wire to keep out vermin. Then they must be shaded with burlap or sacking to exclude light. While potatoes should be thoroughly dry before storing, such root crops as beets, carrots, turnips, parsnips, salsify and winter radishes require more moisture; therefore, they should be packed in soil or sand. With the exception of potatoes the other roots might be better stored in an outside, where conditions will more readily lend themselves to using soil in which to pack them, and where the temperature will be lower. But this may not be safe in localities where the temperature goes down to zero. However, if the heaps are well covered with straw and soil and they are not opened and exposed while the temperature is very low, a little frost penetrating the heap will do little if any damage and, taking advantage of favorable weather, a sufficient quantity of each may be brought to the home cellar from time to time. Before storing, the tops must be cut off, but be careful not to cut into the roots; it is well to leave a tiny bit of the stems on the roots, as it will prevent bleeding.

Parsnips and salsify may be left in the ground, for they are perfectly hardy.

I have found the attic to be an admirable storage place for onions; it is unheated, dry and cool. The bulbs are spread out thinly on the floor.

CELERY'S SPECIAL NEEDS. Celery requires special attention in storing if we are to have it in prime condition throughout winter and into spring. Select a sheltered position for the trench, which is dug eighteen inches wide and deep. Loosen the bottom of the trench, or spread a little of the fine top soil over it to encourage and take care of the roots. Moisten the bottom of the trench previous to storing the plants. The plants should be lifted and put away in dry weather, for if the tops are wet when packed, decay and rot will surely follow. When lifting the celery plants try to keep as much soil as possible on the roots, and if they are very dry it will be well to apply more water to the bottom of the trench; and also dip the roots in water, taking care that the leaves and stalks are kept quite dry. Set the plants in rows fairly close together, drawing soil well over the roots as each row is completed. The soil between the rows, well firm-ed, will allow a little air space between the plants, and prevent heating.

When the plants are all in the trench, the roots properly covered with soil and made firm, the sides are banked up with more soil until it is level with the extreme tops of the leaves. It is now of the greatest importance that the tops should not be subjected to rain, or at least that portion of the trench intended for winter and spring use. Yet, if the weather is mild, there is no necessity to cover the plants unless there be danger of rainstorms. However, as a wooden roof is necessary later, it may be prepared now. On the approach of severe frost the celery is covered with a thick layer of dry leaves and the leaves covered with two twelve-inch-wide boards, these being joined to form an inverted V, and so shed the water.

Pumpkins and winter squashes should have a temperature of at least forty-five degrees, so that the furnace end of the cellar suits them perfectly. Towards the end of the season we select a number of ripe, firm, perfect tomatoes.

They are packed in stone crocks, and the crocks filled with a very strong brine. After filling, the crock is covered with a piece of clean cotton cloth which is held in place by an inverted plate. They are kept in the cool cellar. When preparing the fruit for use they are soaked in fresh cold water overnight, then peeled and sliced in the usual manner. If the tomatoes are perfectly sound when stored they will keep in fine condition for fully four months.

Fertilizing Effect of Rain and Snow.

The remark is often made, more particularly by the town dweller, that there is no water like rain water for freshening up the lawn and garden. The reason for this is at least partly explained in the report of the Dominion Chemist, who has been carrying on chemical examinations of snow and rain. The Dominion Chemist points out that the chief function of rain is the bringing into solution of the plant food in the soil, thus making it available for absorption by the plant roots. But it is also true, he continues, that rain and snow contribute a notable, though not a large part of their nitrogen compounds to the life and growth of the plants. It is found that the quantity of nitrogen compounds present in rain and snow varies from season to season, and also according to the locality in which the rain falls. The condition of the atmosphere at the time of precipitation in respect to smoke, etc., markedly affects the nitrogen content, for it is by the washing, filtering, cleansing action of the rain and snow that they derive their fertilizing value. Heavy bush fires are credited with greatly increasing the nitrogen per ton in the rain, while samples of rain water collected from large industrial centres are shown to contain a greater richness of fertilizing value than rain or snow collected in the open country. The report shows that the rain and snow fall in the Ottawa district during twelve months supplied to the soil on which it fell at the rate of about seven and a half pounds of nitrogen to the acre.

Feeders and Stockers.

To assist eastern farmers who have plenty of feed to secure cattle at cheap prices, and at the same time to make an outlet for the product of the Western ranges, the Dominion Live Stock Branch is undertaking to share the expense of bringing cattle eastward. The Branch undertakes until the first of December to pay the one-way railway fare and other living expenses from his home to Winnipeg, Moose Jaw, or Calgary, of a farmer who purchases one or more carloads of cattle to be fed on his own farm or on the farms of others for whom he makes purchases. Feeder shows and sales of suitable cattle are to be held at Winnipeg on Oct. 8 to 11, Moose Jaw Oct. 15 to 17, and Calgary Oct. 21 to 22. The purchaser is expected to visit at least one of these events. If, however, he should not complete his purchases at these sales, arrangements may be made through a representative of the Live Stock Branch at any of these stockyards to himself visit a ranch to secure his shipment. Before proceeding westward on a cattle-purchasing trip, it would be well to communicate with the Live Stock Commissioner at Ottawa for detailed information.

Feeder and stocker cattle in the West are even at this early date bringing comparatively low prices, while the prices in the East are at least moderate for this time of the year. During the week ending Sept. 4 stockers from 450 to 800 pounds sold in Edmonton from \$2 to \$2.50 a hundredweight, while feeders 800 to 1,100 pounds brought no more than \$3 a hundred. During the same week stockers were sold in Toronto up to \$3.85 and feeders up to \$6 per hundred pounds.

Use the Blower.

Before entering the silo it is advisable to start up the blower of the cutting box. In a silo which has been long empty the smothering carbon dioxide gas may be formed, and the fresh silage in one partly filled may produce a poisonous gas. If there is no circulation of air one of these may be present in considerable volume. Air currents stirred up by the blower dilute the gases sufficiently to drive them from the silo.

Prince Edward Island is doing big business in certified seed potatoes. Last year 235,000 bushels were shipped out, a big portion of which was sent to the United States.

Get the galvanized vessels out of the chicken coop. Hens fed milk in such containers are poisoned thereby. Use wooden, earthen, or porcelain containers.

The best time to save seed potatoes? Why that's easy—as you dig them. When you come to a hill that has a nice lot of uniform, good-sized ones, put them aside for next year's planting.

Preparing Butter for Exhibition at Rural Fairs.

During the next few weeks the fall fairs will be on all over the province. This means that many of the people on our farms will be very busy preparing their exhibits.

Butter is just one of the many things that will require attention because every buttermaker wants to make a creditable showing, so says Miss Belle Miller of the O.A.C.

Have the stables, cows and all utensils clean and do not feed the cows anything that might give an undesirable flavor to the butter. The judge will pay particular attention to the flavor and it is given 45 out of the 100 points on the score card.

Churn the cream sweet, or with low acidity, as that is what is wanted by most judges.

Keep the cream cool and churn at a temperature low enough to bring the butter in nice, firm granules in from twenty to twenty-five minutes.

A lot of butter shown at our rural fairs is made from cream insufficiently cooled and churned at too high a temperature. Because of this the body is weak and the color pale, or, if the salt is unevenly distributed, the butter will be streaky.

All of those things are considered by the judge, as is shown by the score card, which reads as follows:

Flavor	45
Texture	15
Incorporation of moisture	10
Color	10
Salt	10
Packing	10
Total	100

If the weather is warm, the ice supply exhausted, and the water not cold enough to lower the cream to the required temperature, it would be well to get a piece of ice to cool the "exhibition" cream and the water used for washing the butter.

This butter will be firm enough to stand sufficient working and it will have better body and texture, improved color and more even distribution of the salt.

If it should be necessary to add a few drops of coloring to the cream be careful not to add too much. Better have the butter pale than have it highly colored.

Do not wait until the morning of the fair to churn the cream. The butter will be in better condition and will score higher if it is made two or three days before. This will give it time to become "set," and the flavor of the butter and salt will be blended.

The packages must be as neat and tidy as it is possible to make them. Use a box or crock that looks new. A chipped or cracked crock will reduce the score under the heading of "packing."

When a person has made an effort to make a good product they have a feeling of satisfaction even though they do not win a prize. There is always this fact to bear in mind—the prizes are few in number but the competitors are often many.

Boys and girls in American schools are two years behind those of the same age in other countries, so far as Latin and Greek are concerned.

Showing at the County Fair

BY P. P. POPE.

The fair season is here. Stockmen have looked over the premium lists to see how well they can fill it. Our country fairs are county promotion enterprises primarily; they are not pet exhibitions of the officers, and although fair officers are often abused, they are invariably public benefactors, giving their best services for the promotion and development of community interests.

Too often exhibitors look upon their show efforts from a rivalry making standpoint only. Of course, a certain amount of premium money is necessary in order to leave a satisfactory taste in the mouth of the showman. He spends a tedious week, washing and grooming his charges, constantly asking questions, wise and otherwise. He loves his charges, he loves the strife of a healthy contest, and naturally likes to see the prizes come his way.

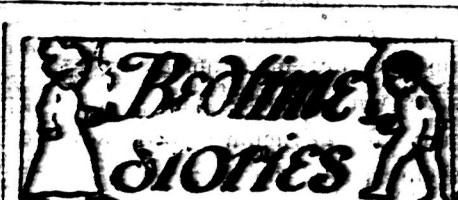
But the money war is not the sole benefit. The advertising value of a fair, the exhibition of one's wares, whether they be cattle or cantaloupes or candies, is well worth the effort. More prospective customers will inspect your exhibits at the county fair in one week, than will visit your farm to see them in a whole year.

ITS HIGHEST REPUTATION.

The county fair reaches its highest reputation, however, when the exhibitors can look upon it as a promotion enterprise, as a means of fixing higher ideals in the minds of men and women. When numerous local exhibitors make their exhibits with the big idea of showing to the world its attractive form the resources of their respective communities, they are looking upon the fair business from the right viewpoint. It is this pride in one's own community, and in the accomplishments of its people, that lends the right spirit to the occasion, that gives to the county a high standing throughout the country, and that ultimately causes the premium lists to grow, the attendance to swell, and the advertising benefits to multiply.

PREPARATIONS FOR THE SHOW.

It is with all these objects in view that we have become a sort of custom with us here on Francine Farm to



THE PEDLAR.

Good morning, Mother Mouse, have you need of any corn?
I'm Goblin Green the pedlar, and I pass this way each morn.
Would you care to taste a sample of the grain that's in my pack?
And if its flavor pleases, I can bring along a sack.

Dame Mouse took a sample, and she must have found it good.
For to-day I passed the pedlar with a load in Dingley Wood.
He stopped at Mother Mouse's and he left his load as well,
And the sack the corn was tied in was a Canterbury Bell!

Moisture in Silage Making.

It is essential that there should be sufficient moisture present in fodder at the time it is being placed in the silo to provide the water requirement for the ensiling process and leave the surplus necessary to have amply moist, well made silage after the fermentative and cooling processes have taken place. With sufficient moisture present in the ensiled mass there is little danger of the fermentation temperatures running too high. Corn in the glazed stage, or dried out through freezing, or long delays in harvesting will require liberal wetting. The shortage in plant juices can be made up by the application of water in quantity sufficient to thoroughly wet the cut fodder. Water is best applied by running a small stream directly into the fodder cutter while the fodder is being passed through and blown up into the silo. With water under pressure, a valve to control the flow, and a section of garden hose the process of wetting the cut fodder is easy.—L. Stevenson, O. A. C.



Why They Dig.

"Why are these Congressional Committees always digging into something and stirring up the dirt?"
"Because it's pay dirt, my boy."

In wood there are a great many small holes or cells. Some of these have a little moisture in them. When the wood gets hot this moisture turns to steam and bursts the cells. This makes a noise like a small explosion, and a great many such noises together make the crackle of the fire.

The Sunday School Lesson

OCTOBER 5

The Choice of the Twelve, Matt. 10: 1-18. Golden Text—Freely ye have received, freely give.—Matt. 10: 8.

I. THE TWELVE DISCIPLES COMMISSIONED, 1-4.
II. JESUS INSTRUCTS THEM FOR THEIR JOURNEY, 5-8.

INTRODUCTION.—The task of Jesus, as we saw in our last lesson, was to lead the nation of Israel to repentance in preparation for the coming of the kingdom. He sought to convert the thoughtless and indifferent, to rouse the careless, to comfort the despairing, to restore the souls of the lost to God. It was his purpose, in the course of his mission, to visit all the cities of Israel, so that everywhere the summons to repentance might be given, and the offer of the kingdom of God made. But the task was vast, and beyond the Saviour's personal power to accomplish. Helpers were needed, and now we see him solemnly appointing twelve disciples to take part with him in the evangelization of Israel. We saw last week how full of ceaseless activity his days were, how the more he labored, the more the multitudes gathered to him from every side, needing instruction, healing and guidance. These multitudes represented the "lapsed masses" of the Galilean cities. They consisted largely of people who had drifted away from the synagogue and from organized religion, and who had found nothing to take its place. Restless and dissatisfied, torn up by the roots, so to speak, and drifting aimlessly, they moved the soul of Jesus to an unutterable compassion. He did not despair of the "proletariat" of Israel, but saw his principal task in the redemption of their souls to God, in bringing the lost ones back to a worthy aim in life. "Come unto me," he said, "all ye that labor and are heavy laden, and I will give you rest." In Matt. 9:36 we read that Jesus likened them to "sheep having no shepherd." They were exposed to every temptation, and at the mercy of the enemy of souls. Therefore, Jesus said to his disciples, "The harvest truly is plenteous, but the laborers are few; Pray ye, therefore, the Lord of the harvest, that he will send forth laborers into his harvest." Matt. 9:37, 38.

I. THE TWELVE DISCIPLES COMMISSIONED, 1-4.

V. 1. Jesus solemnly summons the twelve. Some of them possibly were still living in their own homes. When they assembled, he explained to them the nature of the task which they were now to undertake. They were to preach the message that God was now about to begin in his kingdom. They were to call off all men to put away the old life of thoughtlessness and sin, and to give themselves to God. But in order that this might be done, they must realize that God has now put forth his power for the saving of men from sin and Satan; their reign of sin and death is coming to an end. Jesus, therefore, gives his disciples power to cast out demons or evil spirits, and to heal diseases.

Vs. 2-4. The disciples of Jesus had mostly been called from the ranks of common toil. Some had been fishermen, and as fishermen, they had learned the grand lesson of patience or "meekness." The names are given in three groups of four. The first consists of Simon, surnamed Peter, Andrew, James and John. These represent the earliest followers of Jesus. The second group consists of Philip, Bartholomew, Thomas and Matthew who had formerly been a "publican" or collector of taxes. The third group consists of James, the son of Alphaeus, Lebbaeus, surnamed Thaddaeus, Simon the Canaanite (not "Canaan-ite," as our Authorized Version wrongly renders it), and Judas Iscariot, afterwards the traitor. The word "Canaanite" applied to the second Simon, means Zaddai, as Luke informs us, and seems to imply that the Simon in question once belonged to a society of insurrectionists, who wished to overthrow the power of Rome by arms and to make Israel a "kingdom in worldly sense." But from these designs he had been converted by Jesus, and is now a follower of the Prince of Peace. These are the men, called from various walks in life, to whom Jesus now commits the gospel of the kingdom of God.

II. JESUS INSTRUCTS THEM FOR THEIR JOURNEY, 5-8.

Vs. 5, 6. In the first place, their mission is to be for the present, limited to Israel. The cities of Galilee, though not all Jewish, were two numerous places which contained a largely foreign or Gentile population, just as in Canada there are settlements consisting largely or entirely of Ukrainians or Finns. These foreign communities had sprung from the earlier settlement or colonization of Palestine by Greeks and others. Such a city of Sepphoris, for instance, though quite close to Nazareth, was a Gentile city. But for the present the disciples are instructed not to take any road leading to such a city. Nor again are they to cross the border into Samaria. Their task, like that of Jesus himself, is to be the salvation of "the lost sheep of the house of Israel," the lapsed masses of Jews who have drifted from religion and from God, and whom it is imperative to reconcile and bring back to the Father.

V. 7. The message of the wandering preachers is to be always that God is now about to set up his everlasting kingdom of salvation, and, therefore, men are to turn from sin and Satan, and to prepare themselves by righteousness to obtain an inheritance in the holy realm of God.

APPLICATION.

In the choice of the Twelve, Jesus followed what would now be considered a sound pedagogical path. First disciples, then apostles—first learners, then doers. "The end of a thought is an action," said Carlyle. "The means of an action should be a thought," let us say. It needs intelligence to be a capable mechanic, lawyer, doctor. It needs moral thoughtfulness to make the complex individual life safe and sound. It needs vision to co-ordinate the life of a Christian democracy. God gives us men who are thinkers to lead church and state into the unknown. God gives us a church and state that will dare to do what our best thinkers think.

In the choice of the Twelve, Jesus followed a sound psychological law. He did not fill up the glorious company of the apostles with stand-out men. Twelve men more various could not be found anywhere. Consider the contrasts. Peter stood forth like a fiery peak in the Highlands. John gently rested in the God-like some deep mountain tarn. Matthew had been a publican, taking office under the Roman government. Simon the Zealot was a sworn enemy of the empire. There were no two men alike. This shows us that we have a Saviour who can meet the need of all types of men. He is the catholic Christ. Born in the East, he is worshipped in the West, and when his name is carried back again to the East, the non-Christians of India make use of the name that is above every name, to describe their hero, and call Ghandi, "the Christ of India."

TRAINING OUR CHILDREN

The Hop O' Thumb Boy—By Marion Brownfield

Of all children difficult to bring up successfully, probably the "Hop O' Thumb" or irrepressible type of boy is the biggest problem. As one school teacher says, "You never can get your finger on him," and as his own mother says, "A mother of a boy like Archie surely deserves a special dispensation!"

The Hop O' Thumb boy is the kind that "dry cleans" his hands on a towel when sent to wash them before meal time, and who slips away from the table afterwards, on the slightest pretext, to be with the gang.

The remedy? In the first place, one has to consider Archie's virtues as well as his faults. While impulsive and restless, he is quick to learn if he is sufficiently interested, and he is warm-hearted. This is often true of boys of this type, especially if the affections are trained early to centre in the home.

When Archie rebels at practicing brings home poor marks from school, makes eddies work at home by throwing his belongings around and through the daily infractions that tempt his mother to nag him wears her to a frazzle there has to be a reckoning.

A first appeal should be made by the father. If the boy is young his love for his mother should be his plea. "See here, if you really care for her don't make her so much work! You don't want your mother to be your servant, do you, just because you're lazy or forgetful?"

Along with this goes the idea of justice; "fair play" is an appeal that nearly every boy responds to. "Do you think it's fair to make your mother do your school work or practicing for you? Then do it yourself—the sooner you begin the sooner it will be done. Don't be such a baby that your mother has to stand over

you and watch or talk to you every minute."

A boy generally has a vast amount of pride, and this is of value if it is only directed into the right channels. These first pleas may be met with a certain bravado that implies "I don't care," but the thought usually sinks in and is applied if the boy can manage to do it without seeming to "give in" or lose any of what he considers his "manly dignity!"

If he seems to have grown suddenly beyond home influence and his father's advice, more drastic discipline is needed. A practical punishment, firmly enforced, is often effective for failure to study or keep his person or room in order. Thus, for example, "You can't ride your wheel for a week," or "I shall not allow you to attend the movie on Friday night." Either will be a hardship.

When such punishments fail to improve the boy's general attitude, the fault is likely to lie with the play fellows with whom he is associating. Their company can be discouraged of course, and an effort to keep him at home should be made. Books, games, and radio, for example if they keep him under home influence. To keep an active boy contented in his own yard is difficult, yet to keep him away from the gang or "mob" influence is just what is needed to forge a new bond between him and his parents.

The father who drives a machine should talk the boy along with him whenever possible; outdoor sports should also include the son. But failing then to curb the boy's restlessness and keep him from undesirable companions, real work among kind but firm, mature people may be the answer. It is certain that work will teach him the value of clothes, education and other advantages of which he previously has been so careless.

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