

EFFICIENT FARMING

Watch the Buckwheat!

When the buckwheat crop is harvested, it is essential it should be saved. The danger in heating is above that of other grains, and it is necessary that the buckwheat bin should be carefully watched. The danger arises principally from dampness at time of threshing. Threshing usually occurs in late September, October, or November. The weather is frequently damp or wet, consequently the grain goes in the bins in damp condition. Grain is usually hauled from the field and if work is started at a fairly early hour in the morning, there will be sufficient dew or frost on the buckwheat to affect the efficiency of the thrasher. This will also cause dampness in the grain.

Buckwheat should be observed from day to day in the fall, particularly if there has been dampness about the unthreshed grain. If this is the case it should not be placed too deeply in bins, but better spread so that it can be shoveled. One should thrust his arm deep in the grain and this should be done not in one place but at different points. In addition to this I use a tiling spade with blade about fifteen inches long for stirring. Heating commences in pockets, perhaps not larger than a man's hat. This is apt to spread. It may start with a particularly damp measure full of grain. If the grain is badly spoiled it is dangerous to feed. If it is heated slightly and cooled before it cakes or swells, there is little danger in using it for feed. We are using some now which had started heating but was observed in time.

Buckwheat may show no signs of heating in the fall, but when the warm spring weather comes, much that is dry will be in danger. Buckwheat that is apparently dry and in good condition may quickly heat and become a caked mass. Two nearby farmers felt entirely satisfied the past spring that their seed buckwheat was perfectly dry. They felt it in the spring, and at the time it was perfectly cool. Two or three weeks later the grain was spoiled, and they were compelled to pay \$4.00 per hundred for seed. I came near having this experience. I found a pocket perhaps about the size of a keg. This was heating. I removed the grain in that portion of the bin, and stirred the remainder daily.

If buckwheat has become warm, and perhaps may smell a little, it will still make chicken, dairy or hog feed. It will grow. I have tested and planted that which had heated a little but not swelled. However, I would advise the farmer to figure on sixty to seventy-five per cent. germination. Buckwheat which had badly spoiled caused a considerable loss in a neighbor's poultry flock when fed.

One should raze the buckwheat in the bin. With flour at present prices, and commercial feeds at figures now quoted, buckwheat is worth not less than \$3.75 for dairy feed and not less than \$3.25 for hog feed, and perhaps more.

As poultry feed it is worth as much as for dairy feed, and it ranks next to wheat in our experience for chickens. It can be fed profitably ranging from twenty to fifty per cent. of the grain ration. It is usually advisable to feed about twenty-five per cent but we have fed it as high as fifty per cent. of the grain ration to dairy cows, and it proved one of the best milk producers. We have read criticisms of

buckwheat, being an irritant, but this year from about June 1 to August 15 we fed a bunch of nine pigs whole buckwheat, scattering it well on the ground so it required some time for them to consume it. We fed wheat, and the pigs were on pasture, and were supplied mineral matter, and they were as good as any pigs we have raised. We have fed some buckwheat to horses, and with oats at present prices, buckwheat selling for \$2.40 per hundred pounds with little demand just at present at those figures, one can feed this grain in the dairy, poultry and to hogs, making it a part of the grain ration, and realize not only profit but save trouble and expense of handling it.

Storing the Potato Crop.

Who has not seen potatoes scooped into a chute into a grocer's storage cellar, and permitted to drop from three to ten feet into a bin? Such a bruised crop under the warm, moist cellar conditions commonly given, is likely to show severe rotting. The farmer must realize that in the long run he pays for this rotting of his product.

The sound skin of a potato is its best protection against rotting and handling must endeavor to keep the "wrapper" intact. It is evident, with the potatoes dug early, that the problem of preventing deep injury to the tubers with tender skins is difficult. Ontario potatoes are stored in warehouses or cellars or are pitted. Occasionally requests come to know what a storage cellar should be fumigated or disinfected. The warehouse should be cleaned of all old, rotting tubers and thoroughly aired and dried. No special disinfection is necessary. It would be better to spend the money and time for false floors to provide good circulation than to try to disinfect the bins. The rotting organisms are all about the potato. They are native to the soil. Conservation of the tuber depends upon the sound skin and cool, dry air conditions.

Large piles of potatoes should have ventilation channels provided, either by lattice work or by rows of crates. Potatoes tend to sweat upon being put into storage. Ventilation is necessary to dry this moisture. Only a general rule can be given, but potatoes should be kept as dry as possible, yet avoiding shriveling, and should be kept as near the freezing point as possible, yet avoid freezing.

Pit storage is commonly employed. It has the advantage with the ordinary season of keeping the tubers better than the ordinary warehouse storage, and the disadvantage that the tubers are not readily obtainable for shipments in cold weather.

A pit should have a base of clean, dry straw and if at all large should have a straw chimney connecting with the base to provide ventilation. It is the custom to cover lightly with dirt until a snow-fall, and then complete the covering with another layer of straw and earth. Where provisions for ventilation are not provided, a blackening of the hearts of the tubers has taken place commonly in mild seasons.

It is doubtless needless to say that only sound, uninjured tubers should be put into storage. Ontario's problems, then, is economically to gather, store and market her vast potato crop. Whether the crop is moved at once or held in stor-

After Apple-Picking

My long two-pointed ladder's sticking through a tree
Toward heaven still,
And there's a barrel that I didn't fill
Beside it, and there may be two or three
Apples I didn't pick upon some bough.
But I am done with apple-picking now.
Essence of winter sleep is on the night,
The scent of apples; I am drowsing off.
I cannot rub the strangeness from my sight
I got from looking through a pane of glass
I skimmed this morning from the drinking trough
And held against the world of hoary grass.
It melted, and I let it fall and break.
But I was well
Upon my way to sleep before it fell,
And I could tell
What form my dreaming was about to take.
Magnified apples appear and disappear,
Stem end and blossom end,
And every fleck of russet showing clear.
My instep arch not only keeps the ache,
It keeps the pressure of a ladder-round.
I feel the ladder sway as the boughs bend.
And I keep hearing from the cellar bin
The rumbling sound
Of load on load of apples coming in.
For I have had too much
Of apple-picking: I am overtired
Of the great harvest I myself desired.
There were ten thousand thousand fruit to touch,
Cherish in hand, lift down, and not let fall.
For all
That struck the earth,
No matter if not bruised or spiked with stubble,
Went surely to the cider-apple heap
As of no worth.
One can see what will trouble
This sleep of mine, whatever sleep it is.
Were he not gone,
The woodchuck could say whether it's like his
Long sleep, as I describe its coming on,
Or just some human sleep.

—Robert Frost.

ago, the farmer must exercise care in handling, protect from frost, and prevent deterioration. A common fault in the past has been to injure seriously by bruises or wounds. In addition, serious loss from rotting arises from warm, moist storage conditions.

The cardinal principle is to provide ventilation and to keep the tubers cool. The black heart condition which developed so markedly last season may be avoided if the tubers are well aerated and do not get too warm. The potato even at the lowest offering of this uncertain fall market, is worthy of careful handling.

For the Right, Every Time.

One boy I know used to stop at a farmer's house where a very inquisitive woman lived. She used to "pump" that little fellow dry every time she could. One day she asked him something about the home affairs. "My Mamma doesn't want me to tell," came back the answer very quickly, but modestly and firmly, and that was the end of that woman's quizzing the boy. She found out that he knew where the line was between what should and what should not be told away from home and was bound to stand by it. There is no finer quality for boy or girl than that of upholding the right always and everywhere. The home is the boy's castle, as well as the man's. The best, perhaps the only way he can defend it is to be true to father and mother.—E.

Some of your corn got caught by the frost? Too bad! The best market for it is through the hogs.

A pretty and serviceable walk on a lawn can be made of irregular flat stones laid two or three inches apart, so that the grass can grow between them.

Poultry

Never try using last year's water-glass solution for another lot of eggs. Be sure and take your own cans or bottles to the drugist when buying water-glass. It is better to furnish your own receptacle and save money. Earthenware jars are necessary to preserve the eggs in the best condition. The solution is made by using one part water-glass to nine parts of water which has been boiled and cooled. A gallon of water-glass will make enough solution to preserve fifty dozen eggs. As a little speculation better than all stock we recommend putting down about fifty dozen eggs now while they are worth around fifty cents per dozen. Sell them about Christmas time when quality eggs are high and scarce. Sell them for exactly what they are worth. Water-glass eggs. And let the quality prove to the customer that they are better than cold storage eggs sold in the store. If the eggs are sold for seventy-five cents, that means \$12.50 profit, less the cost of the solution and the time of putting down and fishing them out of the crocks. That's not much money, but there isn't much easy money in the business of producing food, and every dollar counts. A hen has a bodily temperature of 106 1/4 degrees and she is protected by a thick coat of warm feathers. When the bird is well fed and living in a still air, her body generates enough heat to keep her feeling fine and the feathers keep the heat from leaving too rapidly. A hen exposed to the wind soon suffers from the shock caused by the feathers blowing out and exposing the warm skin to cold air. This means that windbreaks are useful on poultry ranges and draughts must not be permitted in poultry houses. Fresh clean cold air is healthful to fowls. Damp unclean air is unhealthy whether warm or cold. It is not the cold air that causes sickness in poultry flocks. The open-front house is necessary because fresh air means healthful poultry and they can stand cold if well fed and protected from draughts.

What is Fertility?

Fertile land is the basis for all permanent agricultural prosperity, and the question of soil fertility has a direct bearing on practically every agricultural subject. It is useless to spend time and money for the purpose of improving plants and animals unless the soil is fertile enough to furnish a sufficient amount of food for the former and feed for the latter.

Soil fertility may be defined as capacity to produce growths of the crops to which the soil and climate of the region are adapted. It does not depend upon any one factor, but upon a number of factors working together. The chief of these factors are: available plant-food elements in an accessible form, sufficient water to convey these elements to the roots of the plants, proper soil temperature, and sufficient air in the soil to furnish oxygen to the roots and to facilitate necessary chemical changes in the soil.

Water in soils, except in irrigated sections, depends upon rainfall, but may be conserved by correct amount of organic matter and proper tillage methods. Therefore the chief duty of the farmer in maintaining soil fertility is to see that the soil is kept supplied with organic matter and the essential plant-food elements.

Visit your school at least once this month. If you have children try to make it every week, but go once.



THE SUNDAY SCHOOL LESSON

NOVEMBER 7TH

Principles of Christian Living—St. Matt. 6: 1-7; 12. Golden Text, Matthew 6: 33.

6: 1-18. Take Heed. Jesus would have His followers sincere and modest. He gives no approval or encouragement to loud profession of piety, or to ostentation or boasting in religion. It is the sincere and simple purpose and desire of the heart that God honors, and this conception of religious duty is always present in His teaching. The kindly gift to one who needs, the prayer, the fast, are all best done in secret, and best done when the doer himself hardly recognizes that there is any merit in his act. Jesus said, Let not thy left hand know what thy right hand doeth. He warns against the spirit and manner of the hypocrites, the play-actors, the pretenders, in religion and morality, of whom there were not lacking examples among the Pharisees of His day.

The model prayer which Jesus gave His disciples (6: 9-13) is short, simple and reverent. It begins with petitions that due honor may be given to the name of God, and that His kingdom may come. His will be done among men, and continues then with the presentation of personal needs of daily food and forgiveness of sins and to be kept from temptation to evil. How very simple and necessary are the desires and longings of the true Christian as expressed in this prayer. Just that God's name may be honored and His will be done, and that we ourselves may be forgiven and kept from evil and have our daily bread. And how very different the elaborate, complex, wordy and long-drawn-out prayers which we so often hear in the churches to-day!

6: 19-34. Treasures. There is a difference, surely, between laying up that which is necessary for the maintenance of good life, for food and shelter and clothing for one's self and children, and the hoarding up of treasure upon which one's heart is set. The former seems an imperative duty and even necessary, too much neglected in these extravagant days. The latter is and has been one of the chief causes of social injustice and discontent. We must distinguish also between the accumulation of wealth, whether by individuals or by corporations, which is at once invested in productive enterprises such as make for the common good, and that accumulation which either lies idle or is used merely for the gratification of idle desires and the pursuit of useless pleasures. The warning is addressed to the poor as well as to the rich, a serious and solemn warning not to set the heart upon such treasures, but rather upon treasures in heaven, treasures of the unseen world, treasures of faith, and kindness, and selflessness, and hope, and love.

If Thine Eye Be Single. The Revised Version renders correctly, "The lamp of the body is the eye." The eye here represents the spiritual outlook, the way we look upon and regard the world in which we live. If the outlook be clean and sound, if it be free from unhealthful desire, and greed, and mere self-seeking, the whole life will indeed be bright. But if the eye be filled with covetousness and avarice and lust and selfish passion, the whole life will become dark and dim.

Two Masters. The origin and exact meaning of the word mammon is unknown. Augustine, an early Christian scholar, said that it was a Phoenician word meaning "gain." It may have been used as a title of the god of wealth. Service, Jesus declared, must be single and whole-hearted. We cannot render to God divided allegiance. One or the other, God or gain, must be first and supreme.

This saying of Jesus is a simple, direct and satisfying answer to the question often asked in recent discussions of social questions, "What must be the basis of our social order? or, What the ruling motive in business? Is it to be self or service? Is it to be the making of profit or gain, or is it to be the common good? The question becomes, simply, in the words of Jesus, "Is it to be mammon or God?" For the Christian in the home, society, commerce, manufacturing, trading, everywhere, there can be but the one answer. The motive of gain or profit may be present, but it must always be secondary and subordinate, never the ruling motive.

Take No Thought. The Revised Version renders "Be not anxious." The word "thought" in the English of three or four hundred years ago often meant anxiety. Christ does not teach that there is no necessity for toil, for sowing and reaping and ingathering, but that with all this there should be simple trust in the goodness of the heavenly Father, who feeds the birds and clothes the lilies.

Here again the injunction is to put God first, to make Him supreme, to seek before all things to do His will. Seek first the kingdom of God. The best things in human life will come to him who puts the kingdom of God first. Not necessarily wealth, or worldly honor or success, or even long life, but the best will be his. Christ's law, as interpreted by Paul, is that we should be "diligent in business, fervent in spirit, serving the Lord." It is not revolution of material conditions, it is not a new social order, although that may come, that will make peace and reform, humanity, but obedience to this law, putting first things first. Any system, any order, any form of common life, becomes tolerable when men seek first to do the will of God, when they make the law of love supreme. "Love worketh no ill to his neighbor, therefore love is the fulfilling of the law." God's will done for humanity is summed up in love. His kingdom is the sovereignty and dominion of love.

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Nature's Balance a Delicate One.

If all jack-rabbits could outrun all coyotes the coyotes would starve out and jack-rabbits would then become a serious pest, as indeed they have in localities in which the coyote has been exterminated. If all coyotes could outrun all jack-rabbits, then the jack-rabbits would soon be exterminated, and the coyotes would starve. But nature has provided that some coyotes can outrun some jack-rabbits, so that there is always left some food for the coyotes.

A thousand and one other delicate balances between living things are to be found in nature. The most interesting, and perhaps the most important, is found in the work of the tiny organisms—bacteria, molds, etc.—that cause decay. If the remains of dead plants and animals did not decay, it would not be many centuries until all the carbonic acid gas in the atmosphere would be tied up in the remains of dead plants, and plant life would disappear for lack of its principal source of nourishment. More than half the weight of the water-free materials in plants is carbon, all of which is obtained from the carbonic acid gas in the air. Without plant life animal life would be impossible. Bacteria, molds and other organisms of decay are thus the basis of all life on this good old globe of ours.

Fall Plow the Garden.

The exposed soil will crumble up through the winter due to alternating freezing and thawing. The roughened garden surface will catch and hold more of the winter rains and snows than would a smooth, beaten-down surface. The slices themselves will dry out, and when the season at which seeds can be planted does come, the furrows can be covered with the crumbled, dry soil which is in excellent condition for seed sowing and which will protect from evaporation, the water caught through the winter; a sort of insurance against dry summer. Fall plowing will also help to control insects. Those that pass the winter on the ground in crop remnants will be buried so deeply that they can not work to the surface, and those that burrow into the ground to escape outside temperatures will be turned up to freeze and perish.

The sky at sunset is a huge palette upon which angel children are painting pretty things for the folks "down home" to see.

We hear a great deal in these days about efficient farmers. What makes farmers efficient? Turning good furrows, sowing good seed and making money hand over fist? These things are all good, but they do not fill the bill. Efficiency at its best means thinking right thoughts and doing right things; in being good and kind and true and helpful to those that need help.

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THE SANITY OF FARM LIFE

The opportunity for sane living and wholesome thinking offered to those who are fortunate enough to live in the open country is one of the worthwhile compensations of agriculture as an occupation. Farming may have its disadvantages compared to the social and financial advantages of other occupations but farm life gives one the proper perspective for seeing up the rest of the world. This fact was emphasized during the war and is even more apparent just now when the whole world is in a state of unrest and when the industrial and capitalist classes are carrying on their war of hatred.

The business man to-day is confronted with problems that threaten the entire business structure, a partial consequence of the war upheaval. In like manner the laboring man also has his troubles in forcing the necessary adjustment of wages to fit living costs. The man living independently on the farm, from the standpoint of comfort and contentment is probably having less worry and trouble to-day than the worker in any other class. This is because agriculture as a profession is on a more stable basis, year in and year out, than any other profession.

The people of the world are gradually lining up into two general classes: those who believe in established government with equal rights for all; and those who believe in the destruction of government and chaos. The sane, fair, intelligent thought of Canadian farm people will do more than any other one thing to keep public sentiment on an even keel during this reconstruction period.

Our Mudless Home Walks.

The muddy season has now lost most of its sting around our home buildings, where permanent cement walks have taken the place of makeshift gravel, cinders, and unsightly board walks.

For years, during the spring and fall months, sticky clay mud made life a season of cleaning indoors as well as out. Now we can walk dry-shod in any weather to stables, poultry and log houses, garage, ice and smoke houses, etc. It is an improvement! Just listen to the refrain of "Yes, Yes, Yes" from every member of our family.

We began at the rear entrance by making a wide cement platform on which vehicles can be driven for unloading and loading, leaving room on all sides for walking. This platform was also extended into the corners at the sides of the enclosed porch to make a dry place for temporary storage of produce.

From this cement platform the walks extend to the various buildings, forming curves and angles to lessen walking and to make the effect attractive. The walks were built to a height of only about an inch above the ground level, so that a lawn mower will cut the grass along the edges. The front cement walk was previously in place, winding slightly from the road entrance until it joins the cement porch on either side. The siding of our house is pebble-finished stucco, and that, together with our new walks, gives a substantial effect that affords a satisfying solace when our neighbors are using their paint brushes.

The expense of our walks was but little more than the cost of the cement, the work being done at times when the workmen were not needed for other farm work.

Cream Delight.

If you have tired of familiar candy receipts, make cream delight. It is delicious, and it contains only the purest ingredients. To make a large plateful you will need two cupsful of sugar, one cupful of white corn syrup, one cupful of cream—or cream and milk mixed—and one cupful of nuts. Cook together all the ingredients, except the nuts, until you can string the mixture from a spoon. Set the saucepan in cold water until the contents crinkle when you tip the pan; then add the nuts and beat the whole with a perforated cake spoon until it is creamy. If the mixture cools before you have whipped it sufficiently, heat it slightly; then continue to whip it. Finally, pour the candy into a buttered pan, let it cool and cut it into squares or slices.

Profiters.

If profitreering means taking all you can get and giving as little as possible, how about the man who neglects his fields, who refuses to fertilize his fields, and who cuts his woodlot without making provision for the future?

Put your farm machinery in shape, and fix it up in tip-top shape this winter. A shed will cost some more than formerly, but the advance in building materials generally has not been nearly so great as that on machinery.

Evenings are long and indoor occupations in order. Start a family reading circle. The tendency to sensational action and plot is robbing us of our love for the classics. Insist that the children listen while someone reads aloud from Dickens, Scott, Thackeray, Stevenson, even Garlyle and Macaulay. Have them take their turn at reading. They may miss much, but they cannot fail to derive benefit from the careful writing.

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