The Summer Dairy.

There are some advantages in summer dairying now. Prices of dairy products are nearly as good in summer as in winter, the few weeks of pasture we do get are most welcome, and the skim milk helps in the production of pork in the best part of the year for the hogs to grow and fatten.

The one puzzling question is, how shall we feed the cows? If we answer it in the usual way—let the cows feed themselves as best they can in the short pastures, they will fail in their milk flow until it will hardly pay for the trouble of caring for them. If we feed expensive hay and grain, shall we get our money back? Again, if we do not feed liberally now, if we allow the cows to fail in flesh, what will be the effect upon their production later on? To put the question in a different way, is there ever a time when we can afford to let the cows fail in flesh on account of feed costs? Without doubt, if one is to obtain the maximum production from any cow, she must be fed liberally every day from the beginning of the period of lactation. Irregular feeding, sudden changes in the ration, neglect to make the amount of feed consumed correspond with the production of the cow will result in a reduced yield of milk. On the other hand, if feeds cost more than the product of the cow is worth, the more we do in the dairy business the worse we are off, and liberal feeding will not save us from loss, though it will probably help matters somewhat.

Economy in feeding demands that at least a part of the ration be composed of succulent feeds. The summer silo answers the demand. It should be on every farm where corn enough can be grown to fill it. It should be made small enough in diameter to insure the keeping of the ensilage in good condition. The cows should be given all they will eat up clean. We need not fear that they will fail to eat grass when turned into the pasture even if they have consumed a large amount of ensilage. They prefer the grass, and will eat it if it is to be had. Give them a liberal amount of ensilage, keep up the flow of milk and save high priced grain. If one has not a summer silo, some other form of succulent roughage must be provided if the milk flow is to be kept up during the hot weather. Oats and peas, or oats alone, are good feeds and will be eaten with a relish. Feed liberally. The more the cows eat, the more milk will be produced.

Oats and peas do not last long. By August first we must look for something else. If we have alfalfa, our problem is easy of solution. Alfalfa has no equal among the many possible summer feeds. It is better green, but may be fed with good results in the form of hay. Early sweet corn will be ready to feed in many districts by August 15. The amount of feed furnished from a given area of sweet corn will depend on conditions. If the ground is but moderately fertile the yield will be small, but if it is enriched with a liberal application of manure results will be much more satisfactory.

The handling of any soiling crop means labor at a time when most of us have all we can do aside from any extra work. The larger the yield from a given area, the less the labor in proportion. If we must grow a soiling crop for the cow, let us grow it on good soil. Let us fertilize liberally and give the best possible culture to it if it is a cultivated crop. We want it to grow just as rapidly as possible and produce the largest possible yield. It will do this, if the soil is rich enough and we give the required culture.

More and more of the grains formerly fed to the cows are used for human food. This means that prices of these feeds will be high and profits resulting from feeding them reduced or cut off, or even turned into losses. By-products of the manufacture of grains into starch, and different forms of human food, gives us quite a list of feeds that are very useful in the feeding of the dairy.

We should know as much as possible about the real value of these feeds, and should avail ourselves of them whenever such investments promise a profit. No manufacturing plant runs primarily to make by-products. If for any reason they have accumulated in considerable quantity, the price goes down, because they must be sold and gotten out of the way. If one watches the market closely, he will find considerable variation in the prices of these feeds owing to this cause. Understanding conditions, he will be able to invest at such times at prices which will warrant liberal feeding. But generally speaking, dairymen must depend to a much greater extent upon roughage until the demand for human food is lessened. Until that time arrives, the problem of the summer dairy as regards economical production must be solved by the summer silo, or by growing soiling crops on well fertilized areas, by liberal feeding, and by intelligent buying and using of the by-products obtainable from time to time. If it is not found possible in this way to produce sufficient amounts of dairy products to supply the demand then prices must go up. When the public understands the value of milk as a food, there will be no surplus milk.

The greatest problem in the successful handling of the dairy is that of price. Its solution must be approached from two directions. First we must ascertain production costs and get the information over to the consumer; next, we must not rest until the consuming public understands the value of milk as a food. The average consumer would be willing to pay even more for dairy products than he is paying now, if he could be made to understand, first, that the producer is not getting enough, and second, that the product is worth more in proportion to its cost than other foods.

Practical Co-operation.

We were five neighboring farmers who, despairing and under the burden of the ever-increasing cost of living, decided that by securing our food supplies in quantities, paying cash, getting a discount, taking our own turns hauling from town to town and distributing them, we would at least not have to live "from hand to mouth," but possibly might also save some money. We averaged about $25 a month in staple foods, and as a tryout each of us contributed that amount to invest in flour, coffee, cereals, sugar, canned goods, etc.

We made out our list. To get the best prices we must buy unbroken packages—flour by the barrel, soap by the box, canned goods, crackers, etc., by the case.

Wholesalers will not sell consumers direct, hence we named our combination "Economy Grocery Company."

We watched advertisements in farming papers and dailies, and sent for catalogues. Sometimes in our home town we found we could get good quotations on supplies for our company at a discount for cash. We have saved at least 30 per cent. on groceries and other supplies.

Each of us also has preserved three cases of eggs (90 dozen) in water glass, and when they are scarce and prices high we will have plenty of eggs.—L. B. Kilmer.

Trees Are Great Teachers—If We'll Just Go to School to Them.

When we see a man who has run his nerves ragged scheming and planning to get rich quick, or worrying because he doesn't get results in his work faster, we are reminded of the patience with which a tree goes about its business in life. It starts in a very small way, struggles up through the darkness of the soil that is both a help and a hindrance to its growth, and begins life as a tiny twig. It calmly and slowly adds a little to itself here and a little there, growing a little all the time. It never gets nervous or excited. It doesn't fret because it sees other trees ahead of it. If it is an oak it doesn't try to be a poplar. It just minds its own business and works hard, and in the end it stands forth, a success in life, equipped and ready to serve any end that man may have in view for it. Its mission in the world is Growth and Service. So should be a man's. And he should never forget that things worth while don't happen quickly.

This is the Day of the Man Who Uses His Brains.

Dig down into the causes of any man's success and you will find that it is based more on work with his head than on anything he ever did with his hands. Good, hard physical labor is fine, if you don't carry it to extremes, but the human being progresses by brain, not brawn.

Yet, probably you would say we were a swivel-chair fool if we told you you didn't need to work from dawn until dark on your farm. Nevertheless, we do tell you just that. There is a way you could systematize your work so it wouldn't grind you down physically. You can find that way if you'll set your mind to it.

What it Profits a Man To Fertilize His Crop

At Rothamsted, England, fertilizers increased the yield of wheat (61 year average) 18.4 bus. per acre, and at Ohio (20 year average) 13.5 bus. per acre.

The unfertilized wheat of A. L. Hodgins, Ettrick, Ont. (1918) yielded 12.5 bus. per acre as against the fertilized yield 54.7 bus. per acre. **Fertilized wheat yielded more than four times the unfertilized.**

Not total acreage but yield per acre is what counts.

Fertilizers on winter wheat provide readily available plantfood which strengthens the wheat to withstand winter weather, starts it strong in the spring, and makes it go "over the top" with a substantially increased yield per acre over unfertilized wheat.

Wheat Fertilization is Good Crop Insurance.

Booklet on Wheat Production mailed on request.

The Soil and Crop Improvement Bureau
of the
Canadian Fertilizer Association
1111 Temple Building Toronto

CONVENIENCES FOR THE FARM HOME

These Are Not Luxuries, But Dividend-Paying Investments.

By M. R. HODGDON.

Foremost among all the indoor conveniences for the farmer's wife is a good water supply. With a generous supply of water on hand, a great deal of housework will be lightened. In these days when gasoline engines have been so reduced in cost that they are within the reach of almost every farmer, one may be used to pump the water from the well to an elevated tank from which it may be piped to any part of the house or barn. Or, if the gasoline engine is not desirable, there is the wind mill, whose main drawback is that it is not always serviceable. As far as the cost is concerned, there is very little difference.

When the water is elevated then may be considered the manner of using it to the best advantage in the house. In the first place a good enameled sink with a back should be put in the kitchen. The sink should have a good trap leading into a tile drain whose outlet should be at considerable distance from the house on a hillside, or if the ground does not permit, in a septic tank. From the elevated tank the water should be brought to the sink and controlled by means of a faucet. Galvanized iron pipe should be used instead of lead and then the work can be done without the aid of a plumber. A branch should run to hot water boiler connected with kitchen range and then there will always be on hand an abundant supply of both hot and cold water.

In connection with the sink, there should be a dripboard so that all dishwashing may be done with the water close at hand. The sink, enameled both inside and out, may be procured at a moderate cost. This kind is most sanitary and can easily be kept clean and the trap will keep out all offensive odors. In constructing the drain care should be taken to get fall enough to carry the water off quickly. The outlet should be far enough from the house so that there will be no dnager of the waste water contaminating the well water. If it is on a hillside there will be no danger of the water forming a cesspool and becoming the source of disease. If proper care is taken that nothing except water is allowed to pass through the drain, there will be no danger from this source as the soil will quickly absorb it all.

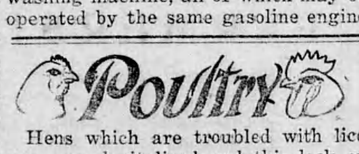
Another great convenience in the summer time is the refrigerator. A suitable ice house for family use may be built at a small cost. If the farmer does not have a large dairy, a house 16x12 with a ten-foot wall will hold enough ice to last all summer. The ice may be obtained from a neighboring river or lake at a small cost. Then in the summer it can be used in the refrigerator. This can be put in some convenient place and the milk, butter and other things that ordinarily spoil easily can be kept in it, thereby saving many trips up and down stairs to the cellar. Then the ice will be found very acceptable in making ice cream and lemonade which are found so refreshing in hot weather.

Besides these things there are the cream separator, the churn, and the washing machine, all of which may be operated by the same gasoline engine which pumps the water. The cream separator has become a necessity on a farm, even where only two or more cows are kept. The use of the separator reduces the care of the milk vessels to a minimum. It gets all the cream from the milk and butter made from it is more wholesome. In making butter the barrel churn is the best. It is simple in construction and has no complicated parts to wash and can easily be operated by an engine. Along with the churn should go a butter worker, the use of which will lighten the labor of working the butter and will necessitate the use of the ladle only in packing the butter into crocks. A washing machine that can be operated by an engine will make the washing almost a pleasure as it will do away with the laborious rubbing of clothes.

This list of conveniences in the housewife's department can be extended almost indefinitely or until they become luxuries. Along with the use of the elevated tank, the farmer may have a bathroom where all the household may have a refreshing bath after a hard day's work. Then there is the question of heating the house properly. A furnace, either hot air or hot water, may be put in at a moderate cost. If the farmer feels that he can afford such a thing, he will find it a great saving in the end. In normal times he can purchase his fuel from the coal dealer cheaper than he can hire a man to cut wood. By putting in a furnace the farmer will find that all parts of the house can be warmed during the winter and made pleasant and healthy. Then, too, with a furnace, the fuel is kept in the cellar, thereby saving the housewife from the dirt which must be cleaned up when two or more stoves are kept going during the winter.

Again, the labors of the housewife may be lightened by the use of a more modern system of lighting than the kerosene lamp. With the use of kerosene goes the filling and cleaning of lamps and chimneys which during the winter months must be done almost daily. By installing a gasoline or acetylene lighting system all this may be done away with and the farm house furnished with a nice clear light at a moderate cost. Or better still, the house may be lighted by means of a gasoline engine, dynamo and storage batteries. This latter way is more expensive but one has at hand in one of these electric plants the foundation for a very extended service by using the electric current for the operation of power machinery, and for providing heat and light.

In considering the many phases of rural life the question is often asked why our farmers do not have more of these conveniences in the house so that the housework may be lightened. A few years ago most of these things would have been considered a luxury and entirely beyond the reach of any except the wealthiest. But within the last few years these things have been perfected and so reduced in price that they are now within the reach of practically all. So the progressive farmer and his wife are even now keeping pace with the times by introducing most of these time-savers and comfort providers.



Hens which are troubled with lice are soon devitalized and this lack of vigor soon results in illness which might have been avoided by a strong bird. If a hen once becomes thoroughly infested with lice she seems to lose interest in dusting and then the lice have a better opportunity to thrive. Many strong vigorous birds seem to keep free from lice without any treatment and they do it because they dust frequently.

However, it pays to dust birds with some kind of insect powder or give them the blue ointment treatment. We like the blue ointment the best. Place a small bit of the ointment under the vent and rub it into the skin and then place a dab under each wing and the bird will be protected from lice for several months. Two treatments per year is usually sufficient. The blue ointment can be mixed half-and-half with vaseline. When birds are dusted with insect powder the operation must be repeated in a week or ten days to catch the additional pests that hatch after the first dusting. As the cost of treating for lice largely consists in the time required to catch and treat the birds, it seems as if the blue ointment treatment is by far the most satisfactory.

It is best to treat Leghorns at night as the birds are easily frightened and this causes a reduction in egg records and is also very trying to the kindly disposition of the operator. Sometimes a flock of the heavier birds like Barred Rocks, will be so tame that they can all be caught during the day by occasionally throwing out handfuls of grain to coax them near. The wire crook on the end of a stick is a handy implement with which to catch birds when examining or treating them for lice.

Clothes never should be put away in a soiled condition—or stored where dust or dampness may get to them.

A layer cake may be spread with jelly and sprinkled with puffed rice and prepared cocoanut.

TAKING OATH ON BIBLE.

Custom Traced Back to Days of the Romans.

The Christian oath on a copy of the Gospels seems derived from the late Jewish oath taken holding in the hand the scroll of the law (or the phylacteries), a ceremony itself possibly adapted from the Roman custom.

The usual mode was to lay the hand on the Gospel, and was kept up to a modern date in the oath of the University of Oxford. The practice of kissing the book, which became so well established in England, appears in the Middle Ages. The book was often laid on the altar, or (after the manner of ancient Rome) the swearer laid his hand on the altar itself or looked toward it; above all, it became customary to touch the relics of saints on the altar. Other objects, as the cross, the bishop's crozier, etc., were sworn by.

An oath ratified by contract or inspection of a sacred object was called a corporal oath, as distinguished from a merely spoken or written oath. The English word signifying the "sacred object" on which the oath is taken is "halidome." The "halidome" on which oaths are sworn in England is a copy of the New Testament. Jews are sworn on the Old Testament; the sacred books of other religions are used in like manner, a Mohammedan swearing on the Koran, a Hindu on the Vedas.

London's birth rate for 1918 is the lowest on record, showing a decrease of 34 per cent. compared with 1914.

Saddler Sime was a droll character, of a type by no means scarce in the rural towns of Scotland. One morning when a neighbor entered his shop he was greeted as followes: "Man, Jamie, I had an awfu' dream last nicht. I thocht I saw my wife fleein' awa' up to heaven wi' a great big pair o' wings." "Aye, man, an' did ye no' try to pu' her back?" was the reply. "Na, na," said the saddler. "I just clappit ma hands an' cried, 'Shoo! Shoo!' I was feared she wid never hae anither chance o' gettin' sae near in."

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One, Two, Three.

It was an old, old, old, old lady
And a boy that was half-past three,
And the way that they played together
Was beautiful to see.

She couldn't go running and jumping,
And the boy, no more could he;
For he was a thin little fellow,
With a thin little twisted knee.

They sat in the yellow sunlight,
Out under the maple tree,
And the game that they played I'll tell you,
Just as it was told to me.

It was Hide-and-Go-Seek they were playing,
Though you'd never have known it to be—
With an old, old, old, old lady
And a boy with a twisted knee.

The boy would bend his face down
On his little sound right knee,
And he'd guess where she was hiding,
In guesses One, Two, Three.

"You are in the china closet?"
He would cry and laugh with glee—
It wasn't the china closet,
But he still had Two and Three.

"You are up in papa's big bedroom,
In the chest with queer old key?"
And she said: "You are warm and warmer;
But you're not quite right," said she.

"It can't be the little cupboard
Where mama's things used to be—
So it must be the clothes-press, grandma."
And he found her with his Three.

Then she covered her face with her fingers,
That were wrinkled and white and wee,
And she guessed where the boy was hiding,
With a One and a Two and a Three.

And they never had stirred from their places
Right under the maple tree—
This old, old, old, old lady
And the boy with the lame little knee—
This dear, dear, dear, old lady
And the boy who was half-past three.

A SELF-PROPELLING RAFT.

Will Sail to England—May Revolutionize B.C. Lumber Exports.

It is announced that Sir James Ball, British Timber Controller, has given an order for 2,000,000 feet of cut lumber to be shipped from British Columbia to the United Kingdom in the form of a demountable ship propelled by its own steam. Industrial Progress, Vancouver, gives the following description of this lumber ship:

"The scheme is to build the cut lumber into a ship and after arrival at destination to remove therefrom the machinery, which can be sent back for use over again.

The method of construction is very simple. Blocks are first laid for the keel and fore-and-aft and cross timbers are then placed in position. When sufficient material has been thus put together to ensure buoyancy enough to keey the bottom high out of the water, the vessel will be launched with donkey engines on board. These are to be used to lift the lumber out of the water and no place it in the ship. The lumber will be clamped down securely with bolts and nuts for every eight feet of depth. On arrival at destination, the fastenings can be readily taken off so as to leave the lumber and timber composing the ship immediately ready for distribution. The vessel will be fitted with schooner rig and auxiliary engines.

FRANCE SUFFERED HEAVY LOSS.

One in Every Twenty-Six of Population Fell in War—Britain Next in Line.

The total of the losses of the various belligerents during the world war, recently made public in Paris, had a staggering effect upon French public opinion. France, in four and one-half years of war, lost one man in every 26 inhabitants; Great Britain, exclusive of dominions, lost one in every 66 of population; Italy, one in every 79 inhabitants.

Germany's losses work out as one man in evry 35 inhabitants; Austria-Hungary, one in every 50; Russia, one in every 107 inhabitants.

These figures have been drawn up according to the most recent census, which in the case of France was 1910, since when the population has decreased as shown by official statistics. scientists to ameliorate harshness of

INTERNATIONAL LESSON JULY 20.

The Lord's Supper—Matt. 26: 26-30 1 Cor. 11: 20-34. Golden Text, 1 Cor. 11: 26.

Matt. 26: 26-30. This Is My Body. Jesus makes of the bread and the wine a sacrament, that is the material sign or symbol of a spiritual fact, a spiritual experience. He desires to impart to His disciples His own spirit of faith, of hope, and of love. He was going Himself to death for them, and He would that the same divine power which was manifest in His suffering flesh should energize and inspire them, and through them the world.

The New Testament. The new testament, or rather new covenant, is contrasted with the old. (See Gen. 17, Exod. 24, etc.) The old covenant bond was based upon the observance of a law; the new is founded in grace and self-sacrificing love. And yet faith was the fundamental fact in both. The old covenant said, "Keep the law and live." The new says, "Believe in the Lord Jesus Christ." The new covenant is written upon men's hearts, and sealed with the blood of Christ. (See Heb. 8: 6-13, and 10: 15-18.)

Until That Day. What day did Jesus mean? It is not easy to answer the question. Did He expect soon to return again in the flesh and to be with them in kingly power? Nearly nineteen hundred years have passed, and He has not yet come in that way. But did Jesus here speak rather of a spiritual fellowship in His Father's kingdom? That has indeed come to pass, and has been proved true in the ever-growing and multiplying experience of the Church. He is with His disciples and sits with them at the banqueting table of the Kingdom of God. Where those who love Him hold communion He meets with them, and in spirit shares their common food. He is a present Christ.

I Cor. 11: 30-34. Ye Do Shew the Lord's Death Till He Come. Paul instructs the Corinthian Christians that they cannot eat the Lord's Supper when they act in a selfish, greedy and gluttonous fashion. "Have ye not houses to eat and to drink in?" he said. They should come together reverently and thoughtfully, not for an occasion of feasting, but as those who remember their Lord's death. That is, indeed, the very purpose of their coming together, that they may keep His death in mind. Paul recalls the incidents of the last supper, and it is interesting to remember that this account was probably written before that in the Gospels, and that it may, therefore, be the oldest record which we have of that event.

Paul goes on to say that this is an occasion for heart searching, for "discerning ourselves," and "providing ourselves." The man who eats in this supper thoughtlessly, greedily, without any real love for Jesus Christ or desire to be like Him, is unworthy. He "shall be guilty of the body and blood of the Lord." The occasion is one that should call forth all that is best in us—kindness, charity, self-forgetfulness, courtesy. We should comport ourselves as those who are in the very presence of Christ. There should be no traitor in our company, no Judas who would betray his Master for gold. The very spirit and mind of Christ must come in and dwell in us. We must find our soul's food in Christ.

It Doesn't Pay to Do Too Much for Your Children.

Not long ago we watched two robins teach their brood to fly. The youngsters teetered dizzily on a limb. Father looked serenely on from his perch. Mother hopped around nervously. Presently she skimmed over to the children and set them an example, fluttering from their perch to a lower limb. Father followed suit. Then one of the little fellows tried it. Very wobbly. He tried again. So did the others. By evening they could all fly.

Those youngsters made mistakes. Of course they did. All youngsters do. But the parents corrected them, and they went on trying until they succeeded on their own. Your youngsters will make mistakes. But just show them how and let them try it. They'll have to live their own lives sooner or later, and you might as well help them to learn how instead of trying to do everything for them. Personal responsibility is a great teacher. We ought to send our youngsters to school to it more.

Journey's End.

Under the blue of the sunlit sky
A gay little stream ran swiftly by,
Chatting and laughing, now soft, now shrill,
Eagerly wandering and never still.

Restlessly hurrying on alone
The little stream, to a river grown,
Seeks through the meadows that twist and wind
Something it longs for but cannot find.

Led by the stars, which are paling fast,
The river's journeying ends at last,
And, clasped to the ocean mother's breast,
It sinks with [illegible]ry sigh to rest.