

Soils and Crops

Address communications to Agronomist, 73 Adelaide St. West, Toronto

HELPING THE HELP PROBLEM.
Do you realize the great time-saving value of the motor-truck? A team of horses with an average load can hardly make more than five or six miles an hour on a fairly good road. Against this, the motor-truck will easily carry a larger load at a rate of from twelve to twenty miles an hour under similar conditions. Suppose, then, that a farmer has to haul milk to the railroad every morning, say a distance of twelve miles. If he uses a horse and wagon the trip will take him practically half a working day, and the services of the man who drives the team are lost during that long period. Besides, both man and horses may be badly needed for other work.

On the other hand, a motor-truck will make the round trip in a little over an hour, or two hours at the most, releasing both truck and driver for other duties.

But this saving of time, due to the increased speed of the motor-truck, has other advantages. It opens up new markets and enables the farmer at a distance, who owns a truck, to compete with the man who is nearer a particular market, for a horse can hardly haul a load more than twelve to fifteen miles and return the same day, whereas a motor-truck can easily do fifty miles during the same period. Besides, it costs more to haul farm products to shipping points by team and wagon than it does by motor-truck.

EXTRA POWER WHEN NEEDED.

An interesting example of the value of the motor-truck in an emergency came up on a farm near Yellow Springs. Two men loaded the truck with alfalfa as high as they could pitch. The load was two and a half tons. Hardly had the truck started for the road when it came upon a wagon-load of one and a half tons of alfalfa. The load had become mired in a soft spot, and the most strenuous efforts failed to extricate it. Finally the animals were unhitched and the wagon load of alfalfa was hitched behind the truck. The motor-truck, which had plenty of power, not only pulled the mired wagon out of the mud, but with the extra load in addition to its own, crossed the field and went on to the barn, nearly a mile away.

A motor-truck is intended, of course, for hauling. In an emergency, though, it can do other jobs. A farmer had sixty-six acres of wheat which had been badly tangled by storms. There was a shortage of horses, but the wheat had to be harvested. The temperature stood at 110 deg. F., making it impossible for even the few horses available to work more than an hour or two at a time.

However, a two-ton truck was hitched to a nine-foot binder and the wheat was cut in short order and without difficulty. Similarly, another farmer used motor-trucks last season for handling wheat in the field and by their help found no difficulty in keeping up with the thrasher, which was harvesting the twenty-five acres a day. During the summer season 1,000 bushels of wheat

were hauled eighteen miles every day. In the hauling of perishable produce such as fruit and vegetables, the time gained by the use of motor-trucks is an important factor.

TRAILER CUTS DOWN HAULING COSTS.
The motor-truck trailer has shown itself to be a big helper. The trailer makes use of the reserve power of the engine. You know that the automobile or motor-truck engine must be powerful enough to enable the vehicle to climb steep grades or go through muddy roads. On a road with fairly good surface and without excessive grades, however, this reserve power is seldom used and thus becomes available for drawing a trailer.

Just as a horse or locomotive can pull a much heavier load than it can carry, it has been found that a motor vehicle can not only carry the weight which it is designed to carry, but can in addition haul a trailer or semi-trailer bearing an equal or greater load; in other words, a truck-trailer combination can haul from two to three times what the truck, tractor or automobile could haul alone. Yet, despite the greater load capacity of the combination, the added expense of operating the motor vehicle is only about 25 per cent.

The use of trailers also saves time, for the trailer can be loaded or unloaded while the motor-truck is going on another trip, and by using three trailers, one loading while a second is unloading and the third is on the road with the truck, the loss of time is greatly reduced.

THREE TYPES OF TRAILERS.

There are three principal types of trailers: the two-wheel, the four-wheel and the semi-trailer, all of which are being used by farmers, the particular type selected depending upon the individual needs and preferences of the user. As with motor-trucks, certain manufacturers of trailers are specializing in trailers especially designed for farm work. Many of the best makes of trailers now on the market embody the most approved features of the motor-truck, and are able, without difficulty, to follow in the track of the towing vehicle without wobbling, overturning or coming to grief when turning corners.

The following examples illustrate the varied uses to which the trailers are being put by farmers: farmer operates a wholesale milk route covering twenty-five miles a day with an automobile and trailer; a fruit grower hauls his entire produce to market with a light passenger car and a four-wheeled trailer, averaging sixty crates on each trip, the total weight of each load being thus more than 3,000 pounds; a farmer uses his light runabout with a two-wheel trailer for hauling cattle up to a ton in weight; Pacific coast farmers haul thousands of tons of hay every season by means of trucks and trailers; a wheat grower made use of several touring cars with four-wheel trailers for handling last season's crop, not only hauling the threshed wheat to the shipping point in this way, but likewise bringing the wheat across the fields to the threshing machine.—Donald McLeod Lay.

POULTRY

Green feed, in some form, constitutes an essential part of any well balanced poultry ration, whether for young chicks, growing stock or adult birds.

The modern tendency is to give a somewhat narrow ration containing protein in a highly concentrated form. This is particularly true with regard to poultry kept in confinement and fed heavily for egg production, as are a large proportion of the birds on our Canadian farms during at least five months of the year. A liberal supply of green feed minimizes the dangers of this system by adding both bulk and variety to the ration, and at the same time replaces a certain quantity of grain.

Green feed is valuable, not only for its succulence, which makes it palatable to poultry, but also because it contains mineral matter, including nutritive constituents, necessary to sustenance, life, promote growth, and assure reproduction. Foremost among these constituents are the vitamins, the absence of which from any ration, whether for humans, animals or birds, will ultimately prove fatal.

Therefore it behooves every poultry keeper, whether backyarder, specialist, or farmer, to make provision for an ample supply of green feed in some form, and in view of the shortness of our growing season, and the late spring experienced this year, no time should be lost.

Green feed may be divided into two kinds, that intended for immediate consumption, and that which is to be held for winter use. Certain varieties, however, are grown for both purposes, this being particularly true of grasses and leguminous plants.

Among the green feeds which are to be used as soon as grown, rape holds first place by reason of its quick growth, palatability and value for cleaning and freshening the yards. The best variety is Dwarf Essex and it should be sown broadcast. Under normal weather conditions it is ready

for grazing from five to six weeks after being sown.

Alfalfa makes excellent green feed for growing stock, and when cured is valuable for winter feeding. It has the added advantage of being able to withstand prolonged drought. The favorite varieties are Grimm and Turkestan.

Mangels or semi-grass beets form the bulk of the green feed for winter use; they are easily harvested, keep well, and generally crop well. The Mammoth Long Red or Gate Post varieties are preferable, as they contain a higher percentage of dry matter. Mangels should not be fed immediately after being harvested, as when very fresh they might cause bowel troubles. The Jerusalem Artichoke, and especially the Mammoth French White, deserves more attention from poultrymen. Extremely hardy and prolific, it can be grown almost anywhere and under any conditions. The green shoots form abundant shade and succulent feed for growing stock, the closeness of the foliage helps to choke out weeds, while the tubers keep well, are relished for winter feed for laying hens and early spring feed for little chicks.

Details regarding methods and time for planting all the above mentioned kinds of green feed will be found in bulletins 87 and 88 (second series) and pamphlet 23, which may be obtained free from the Publications Branch, Department of Agriculture, Ottawa, Ont.

Better be right and poor than wrong and rich.

The gift to Canada of five breeding Shire horses, two stallions and three mares, by the Shire Horse Society of Great Britain, has been added to by Mrs. Stanton, of Derbyshire, England, who has contributed a two-year-old colt from her famous stud at Snelston, near Ashbourne. This colt is the son of one of the best bred mares in the Empire, and by a very famous sire, one time champion of the breed in the British Isles.

Early Sources of Nectar and Pollen.

The early sources of nectar and pollen are of great importance to the beekeeper, not from the standpoint of the surplus honey they may give, but because of the effect they have in stimulating the bees to heavy brood production and so providing a large force of worker bees in time for the harvest.

Most regions in Canada produce a fair supply of these early flowers, especially the Maritime Provinces, Quebec, Ontario and British Columbia. In the prairie provinces, however, these early sources are limited in many localities, and it becomes necessary to feed the bees in order to have them build up strong enough for the main flow.

The most important of the very early plants are the willows and maples; they grow abundantly in most parts of Canada and yield both pollen and nectar. There are many species of willow, and practically all of them are visited by honey bees. The pussy willow (*Salix bicolor*) is usually the first to bloom. Of the maples, the sugar or rock maple, red elder or swamp maple, red or soft maple, and the Norway maple are important. In British Columbia the large-leaf maple (*Acer macrophyllum*) is very important. Other plants that yield pollen at the same time are the alder, ash and elm.

A little later in the season the common dandelion and fruit bloom; apple, pear, plum, cherry and the wild fruits are very important, yielding both pollen and nectar, and in favorable seasons a good surplus may be obtained. In the prairie provinces many of the wild flowers contribute small supplies of nectar and some pollen. The bush fruits, currants, gooseberries and raspberries also furnish large amounts of nectar and, where wild rasp-

berries grow abundantly large crops are obtained.

Caragana or Siberian pea tree is also a heavy yielder and is becoming very important in the prairie provinces where it is being grown to provide windbreaks. In Manitoba and Alberta a surplus is obtained from this plant.

Horse chestnut, hawthorn, barberry, dogwood, honeysuckle, buckthorn and wild mustard also yield small amounts of nectar and are important in the aggregate.

The first shipment of Canadian store cattle for the British market since the removal of the embargo was personally inspected at Montreal by the Dominion Minister of Agriculture, Hon. W. R. Motherwell, the Deputy Minister, Dr. J. H. Griesdale, and other officers of the Department of Agriculture, as well as by several Members of Parliament. There were 427 animals in the shipment, mostly of the Shorthorn and Angus types, and of good beef quality. The Minister stated his belief that the resumption after a period of 30 years, of store cattle shipments would lead to the gradual development of an important export trade.

In France the controversy between the cities and the country over daylight saving has been settled by compromise. The government orders all clocks turned ahead one half hour to conform with Strasbourg instead of Greenwich time.

Learning to cover up an aching heart, to smile when you would weep, is what everyone must learn if he would live the masterful life.

To the motorist a child on the highway is always a danger signal. When you see one ahead slow down at once; and if you are in any doubt, stop.

Home Education

"The Child's First School is the Family"—Froebel.

Unspoiling the Spoiled Child—By Mary E. Underwood

"Joe is so awfully mischievous," his mother complained to me. "He simply takes the house apart. He meddles with the clock, every lock or screw, and we never know what terrible thing is going to happen next." To illustrate, she told me of an unpleasant experience which resulted because of Joe's mischievousness. One morning when he was alone in the room, he opened the telephone and loosened the wires. A few hours afterward a neighbor hastily came to call for the doctor. The telephone was out of commission and no one present knew what to do. Joe was at school. At the supper table Joe's mother mentioned the incident. Joe calmly announced that he knew how to fix it. This he did. "And," concluded the mother, "I fixed Joe to help him remember not to meddle with the telephone again."

It was very plain that what this "spoiled child" needed was not punishment or suppression of his mechanical inclinations but a chance to make use of them. I stated to Joe's mother that if he were my boy I would see that he owned a good set of boy's tools and some good mechanical books. Joe's parents obtained the set for him and they agreed to be exactly what he needed. He found great pleasure in using the tools and reading the books and before long Joe, instead of being an annoyance to everyone, became a very genuine source of pride to the household. He had a corner in the house which he called his "shop," whence emanated all kinds of original and ingenious mechanical toys.

The problem presented by the child who "cries violently until he gets what he wants" is a very common one. The child who has this habit is almost invariably a child who has learned from experience that crying hard and crying long enough is the most successful method of securing his ends. Sometimes this practice originates from

what some parents claim are absolutely unavoidable circumstances; one instance being a sickly child whom the parents think should not be irritated, crossed or annoyed in any way. A child so treated quickly and naturally learns the great value to himself of showing irritation. This coddling in childhood usually develops a selfish, self-centered, self-seeking adult, who in the end pays a heavy penalty for it all by being generally disliked.

This use of crying as a business method is a comparatively simple variety of "spoiledness" to cure, if the mother goes at it wholeheartedly, seeing to it that the child never gets anything by crying for it.

The child who maliciously teases animals does it perhaps because he has never been trained or taught to treat them kindly, or because he has seen those about him careless and unkind to animals. Little children are cruel without meaning to be cruel or knowing that they are cruel. Kindness and sympathy for animals can best be developed in children through actual personal experiences. Every little child should have a chance and should be required to care for some living, growing thing, animal or plant. Only through such practices can the finer human sympathies and instincts in the child be awakened and developed.

The desire of a child to tease others is often the direct result of the child's home environment. It is among the commonest of parents' sins to tease their little children. I do not need to suggest particulars here; most of us can supply them from our own experience.

Wise and loving parents will realize that if their thoughtlessness and lack of judgment have resulted in spoiling, in order to insure the happiness and welfare of these children the work of unspooling the spoiled child must be undertaken.

THE MIXED FARMER



YOU CAN'T PUT HIM OUT OF BUSINESS

The Ontario Long Course Schools

By L. STEVENSON, B.S.A., Secretary and Supervising Director, Department of Agriculture.

In Ontario, winter classes in agriculture and in domestic science are held by the Agricultural Representatives, and during the duration of the Agricultural Instruction Act, 4,000 farm boys have benefited. Out of these classes have grown the junior farmers' organizations, of which there are 104 within the province, with a membership of 2,815. These organizations are the basis of the pig clubs, calf clubs, and various competitions in crop production, all of which are of great practical value. The three-months' courses in agriculture and domestic science now held at eight centres in the province are a similar development.

The Three Month Courses or Long Course Schools in Agriculture and Domestic Science, were organized in 1921-22 as an extension activity of the Agricultural Representatives Branch of the Ontario Department of Agriculture, in four counties, Middlesex, Huron, Peel and Wentworth. The courses were very successful, and the various groups of progressive people making use of the Agricultural Representatives' services in those counties were very desirous that the schools be repeated in 1922-23. Four other counties, Simcoe, Leeds, Prince Edward, and Peterboro asked that the Three Month School service be extended to them. This made a total of eight counties benefiting by this form of extension work during the past winter. The Agricultural Representatives selected the location for the school in his county, arranged with the municipal authorities or others concerned for the use of buildings, grants for running expenses, equipment, prizes, and other minor essentials necessary to conduct a well organized school for rural youth.

The resident faculty at each point where a school was held consisted of the Agricultural Representative, the Assistant Representative, the Domestic Science assistant and the instructor in English and Mathematics. The travelling faculty, visiting all the schools for a definite period in accordance with a well-ordered plan, was made up of the best instructors available.

THE CHILDREN'S HOUR

HOME-MADE BIRD-BATHS OF CEMENT.

A bird-bath of simplest construction, but which has been much enjoyed by the robins, blue jays, wrens, and other feathered denizens of my garden, is here described.

The cover of a large sized galvanized garbage can was used as a mold, after being carefully lined with green paper.

The cover was filled about three-fourths full with cement; then as the cement slowly hardened, it was drawn gently and constantly with a wooden paddle, back from the centre and toward the edge, until, when the cement finally "set," it reached up to the rim of the cover at the edge, and sloped very gently and gradually downward toward the deepest part in the centre.

It was set upon a low mound of stones, about which gay red and yellow and white portulacas were planted. The birds, particularly to appreciate the bath's being set so conveniently low that it is easily within their reach as they hop about the lawn, so that this spot in our garden is gay all summer long with bright-hued blossoms and happy feathered creatures.

A similar bird-bath was constructed by a neighbor, who, instead of being set low upon a tiny "rockery," was elevated upon a pedestal.

A cracked earthenware drain-pipe was used as the mold for this pedestal, the pipe being thoroughly greased inside before the cement was poured into it. After the cement had hardened, this mold was broken to pieces to set the pedestal free.—Harriet Joor.

TRY THESE NEW GAMES.

Here are some games that were played at a recent school fete:

Nose and toe tag furnished much amusement. If the one who was "it" tagged a contestant who was not in manual connection with his nose and toes, the unfortunate player had to become "it."

Now then, look out! If you don't want to get caught, just grab your nose with one hand, and your foot with the other. If you can keep your balance and hop around on one foot, all well and good; but if you can not, you will fall down. But whatever you do, don't let go of your nose or toes, or you will be tagged.

Ostrich tag came next. In this game none of the performers could be tagged while they slung an arm under the crook of the leg and grabbed the nose. To be seen hopping around in that position reminds one very much of the ostrich; but it's fun, just try it.

Ankle tag was a game for the girls. Here the girls to be immune from "it" would make a lunge for each other's ankles. Of course there were some falls, but it only added to the hilarity of the children.

In playing turtle tag, if one kept his hands and feet from touching the ground, he couldn't be tagged. At first the boys tried to fly, but in a few moments they discovered it was easier

"NOW BARABBAS WAS A ROBBER"

By Bruce Barton.

For quite a while I have maintained a little private financial record which I call my "Barabbas Account." It takes its name from a gentleman of ill fame concerning whom we have this very brief biographical note:

"Now Barabbas was a robber." In this account I record such sums as are taken from me during the year by gentlemen who have no moral right to them. For example, I employed a man to do certain work about my place in my absence. Later I discovered that he had imposed upon the trust I placed in him by overcharging me seven dollars. Five years ago this would have produced so much indignation inside me as to cause an appreciable lift in my blood pressure.

As it was, I merely wrote down the seven dollars in the Barabbas Account and crossed the name of that man off my list of friends. Perhaps I shall live two days longer as a result of having spared my blood pressure in this instance. And surely two extra sunrises are cheap at seven dollars.

A few days later a young man who claimed to be an intimate friend of one of my brothers came into the office with a sad tale of bad luck. I thought when I handed over the money that there was something a little queer in the story, but one can't refuse a friend to one's brother.

I have since discovered that the young man was an impostor, and so another little entry went into the Barabbas Account.

I would not convey the impression that I am an "easy mark." Being Scotch, I do not give up without a reasonable struggle. I am merely trying to make this point—that after you reach a certain point in middle life it's worth while to walk around person's instead of wading through them, and to buy peace of mind even if you have to pay for it.

This bit of philosophy came over me first when I was reading the Journals of Mr. Emerson. I ran across a paragraph in which he tells of a friend of his who was a frequent traveler in Europe.

This friend, in estimating the cost of one of his trips, always "added a couple of hundreds to the amount, to be cheated of, and gave myself no more uneasiness when I was overcharged here and there."

Emerson comments that as a wise rule for removing one of the irritating annoyances of life. And he quotes Madden's advice to Dr. Johnson, that one should raise fruit "enough to eat, enough to lay up, enough to be stolen, and enough to rot on the ground."

Such a rule would have seemed abhorrent, if not a bit immoral, to most of us in our younger days. Youth is very rigorous in defence of its rights and all rights are sacred in general. There are no twilight zones in its philosophy, no shades of gray: white is white, and black is black; and offenders receive the judgment of the Goosey Gander who, meeting

An old man who would not say his prayers, Took him by the left leg and threw him down the stairs.

It is an evidence of age, I take it, when one is willing to admit that the list of causes for which he would engage in controversy has been reduced to a very few fundamentals.

But I am willing to confess that I have reached that period. I steer around all the bumps in the road that I can; and I have shock absorbers on the car, even though they do cost a little money.

So I have my Barabbas Book, and please myself by imagining that I am keeping down my blood pressure by refusing to grow indignant, and so buying sunsets at the other end of the path.

And I raise fruit—which in my case happens to take the form of cheques and currency—with the idea that I will eat some, and give some away and have some—just a little—stolen, without peevishness or regret.

Evening.

There is no sunset in the sky,
Upon the quiet water plays no breeze;
The tranquil stillness on the lake
Like music soft is lost among the trees.

My dripping paddle makes no sound,
I glide along in quiet solitude.
The blending tones of gray and blue
In sky and mountains melt into my mood.

The darkened figure of a bird
Skims over the water near his black reflection.
But silent still are all the woods,
And sweet, indeed, is eventide's perfection.

— Mary F. W. Fortier.

To clean currants, put the currants in a cloth bag and rub hard, or simply rub them in a clean soft cloth. The stems and dust will come off readily.

Wireless recently played a part in a burial at sea, when the words of the Burial Service were sent from a large steamer to a small freighter which lacked a Prayer Book.

By means of a new electrical machine, the disease, sex and race of a patient can be told from a drop of his or her blood.