Soils and Crops

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

Our Truck Beats Horses.

"What is the most profitable piece of equipment on your farm?" is a question frequently asked by county representatives and others interested in modern farming.

After careful thought I have arrived at the conclusion that there is but one answer to the question as applied to our farm—the motor truck.

For thousands of years the problem of successfully marketing farm products remained unsolved. The farmer produced with hope, but marketed in despair. As a rule, he was greatly hampered by the many miles which separated him from an active market; the result was that he sold his stuff to the nearest dealer, and often was neatly trimmed in the transaction.

To a great extent the motor truck on the farm has remedied that evil. To-day the motorized farm can be likened to a farm upon which there is a railroad station.

The possession of a truck gives the owner a choice of markets; he can deliver his product to the market offering him the most profit.

A two-ton truck travels four times as fast as the average team. One man with a two-ton truck can haul as much in the same length of time as can four men, four wagons, and eight horses.

Our specialty is alfalfa hay and seed, and our shipping point is three and a half miles away—a much shorter haul than the average. By the team method of delivery it costs $1.30 a ton for each ton placed in a car at shipping point. By motor-truck delivery, and with every item of upkeep figured, it costs us 73 cents for each ton handled.

Around a thriving city, twenty-five miles away, there are a number of dairy farms which are always in the market for choice alfalfa hay. It is simply impossible to deliver hay to these farms by team and realize a profit, but with a truck it is different; twenty-five miles by truck is practically the same as six miles by team.

By opening up better markets for practically all farm products, the motor truck increases the value of land, for the richest soil ever created is absolutely without value if its product cannot be marketed at a profit.

By having a reliable truck on our farm we can take advantage of a sharp demand for our products that may exist a hundred miles away. We try to find markets where competition for the products we sell exists.

Having had considerable experience with various sizes and makes of farm trucks, the following things I have learned may be of some assistance to you:

In trucks, as in everything else, the cheapest in first cost is seldom the cheapest in the end.

When buying a truck for farm use it is wise to select one built especially for country roads and country loads.

By building your own truck body you can save from $50 to $100, and carry out your own idea of what a truck body should be. If you build for permanence, do not use a nail in the whole job; nails soon work loose or break and give a world of bother. Use quarter-inch bolts in place of nails.

Pneumatic tires give much better satisfaction.

The stitch-in-time policy is an excellent one to apply to motor trucks. Ten minutes devoted to an inspection twice each day the truck is in use will practically insure you against serious trouble. Ninety per cent. of all truck trouble can be directly traced to carelessness.

If a truck meets with an accident, it can always be made new, but you can't repair a dead horse with a screw driver and a monkey wrench.

And please remember this: Just because your truck is a willing worker, do not overload it. Overloading takes a heavy toll in tire costs, and is never profitable.

Use nothing but the best oil in crank case, and change often; oil soon loses its lubricating qualities when used in a heavy-duty motor pulling its regular load.

The farther you live from market the greater your need for a good farm truck.

Preparing for the Perennial Flower Border.

No flower garden is complete without perennials. Even though the plot of ground be small, some of the space should be devoted to this useful and varied class of plants. Few flowers require as little care as hardy herbaceous perennials if given the proper conditions to start with. The soil should be a good loam which will not bake, and well drained, for thorough drainage is very essential. When planted, most perennials should be left undisturbed for a long time, hence the soil should be well prepared in the beginning by trenching and digging in a liberal supply of well rotted stable manure. Most perennials thrive best in full sunlight, and where possible, they should be planted where they will get the most favored conditions. A southern aspect is the most suitable, and where there is protection from the cold winds the plant do best. Planting may be done either in spring or autumn, and the month of October is a very suitable time to plant most kinds of perennials.

In making and planting a border it is most important to plant those kinds which will give a continuity of bloom from early in the spring until late in the autumn, and to arrange them so that they will be most effective. The dates of blooming, heights of the plants and colors of the flowers of the best known hardy perennials are given in Bulletin No. 5, S.S., Experimental Farms, Ottawa. In large borders the best effects are obtained by massing several plants of one color or several varieties of one species, and also arranging for a continuity of bloom, but in smaller borders and where the number of plants is limited it is often not thought possible to get this, and sometimes one part of the border will be without bloom.

Many good perennials can be grown readily from seed. These include Iceland and Oriental poppies; Columbine, Coreopsis, Gaillardia, Campanula, Platycodon, Delphinium. In this way, at a comparatively small outlay, and in two seasons, many hundred plants may be grown which will furnish bloom from early in the spring until late in the autumn. The planting of small clumps of bulbs between the later blooming perennials will furnish bloom in the spring when flowers are most desired. Seed should be sown in rows about six inches apart. Autumn is the best time to sow the seed, as it will be softened by the moisture then in the soil and cracked by frost before spring, and will then germinate readily, whereas if it were sown in the spring it may lie a whole year without germinating. The depth of sowing will depend on the seed. Very small seed merely needs enough soil to prevent its blowing away, while the larger seed may be sown half an inch deep. If sown much deeper most seed will not germinate. The young plants at the end or in the middle of the first season's growth may be either transplanted direct from the seed bed to the border or be pricked out about six inches apart into another bed and left growing for the remainder of the season by which time they will be fine strong plants ready for permanent planting.

Breed for Bacon Production.

Prof. G. E. Day, B.S.A., in his work, "Productive Swine Husbandry," states the excellent qualities of the Large Yorkshire hog, a breed widespread throughout Canada, for bacon production in a way which must carry conviction to anyone who grips the fact that this trade has been and must continue to be the mainstay of the Dominion hog-breeding industry:

"The Large Yorkshire is highly valued for bacon production, where a long side abounding in lean meat and a light shoulder and neck are especially desirable. For quality of bacon it is rivalled only by the Tamworth. The large proportion of lean to fat, the thick, fleshy belly, and great length of side render the breed peculiarly desirable from the bacon-curer's and the consumer's standpoint. At the Ontario Provincial Winter Fair, held annually at Guelph, Ontario, Large Yorkshires and their grades always take a prominent place in the bacon carcass competition and carry off a large share of the prizes.

"The Large Yorkshire is spoken of quite commonly as being slower in maturing than the fat types of hogs, but this is not a fair way of stating the case. From a bacon-curer's standpoint, Large Yorkshires will reach desirable market weight and condition at as early an age as any existing breed, and there are few breeds which equal them in this respect. Therefore, so far as the farmer who is feeding hogs for the export trade is concerned, no breed excels the Large Yorkshire in point of early maturity. For the production of a very fat carcass at an early age, the Large Yorkshire is not so well adapted as the fat or lard types. It is a special purpose breed, and for the special purpose will mature just as early as, or earlier, than almost any other breed."

True Service.

"He has not served who gathers gold,
Nor has he served whose life is told
In selfish battles he has won,
Or deeds of skill that he has done.
But he has served who now and then
Has helped along his fellow men."

Poultry

There is no better time than now to give the houses and premises a thorough cleaning. The yards should be raked up and then spaded or plowed. The houses should be given a thorough cleaning and disinfection. To complete the work and add brightness, whitewash the interior of the coops.

November, too, is a good time of the year to paint; if the outsides of the houses are painted, the woodwork will be preserved and the buildings will have a more attractive appearance.

The floor of each house must be at least several inches higher than the level of the outside ground; otherwise melting snows may cause considerable dampness. Ventilation must also be looked after. Unless there is good ventilation in the houses, frost is likely to gather on the ceiling and walls, causing sickness.

Broken window-panes should be attended to. If the door is not in proper order, attend to it now and make it swing clear and easy and shut tight and neat. If the roof is not tight and sound, make it so before the fall rains setin. If a board is off, or shrinkage has made cracks to let the wind whistle through, fix them up right away by nailing on the board or battening the cracks.

These things can all be attended to comfortably this month. It is disagreeable work to be tinkering at them in bad weather. Besides, if they are left till later, they are not likely to be done, and the fowls will suffer. Prepare for winter now.

Over-Seas Cattle Trade.

Apart from the details of cost in transportation and handling, which are given with exactitude, the report made by the representative of the Live Stock Branch at Ottawa on his return from a visit of inquiry into the possibilities of the cattle trade in Britain, contains much information of value to breeders and shippers. For the English market, he says the most saleable animals are those that weigh between twelve and thirteen hundred pounds, well leaned and under three years of age. In Scotland heavier beasts find favor and those running between thirteen and fourteen hundred pounds sell well, but there also fat is depreciative. At present, Canadian stock is criticized in England as heavy in the bone, rather too old, too weighty and rough, and where fat, too much on the outside. Cattle, it is said, should come "Kosher," that is, there should be no adherence of the lungs to the carcass. In this respect Canadian cattle are reported to be extremely satisfactory, as they are judged free from tuberculosis. There is a large Jewish population in the British Isles, by whom chilled or frozen meat is unacceptable. As a matter of fact the heavy fat steer has no permanent outlet either at home or abroad. The standard requirement is the young handy-weight animal devoid of an excess of fat. From the middle of March to the middle of August this year 40,000 head of cattle were shipped from Canada to Britain, the majority averaging above 1,300 lbs., and many of the butcher bulls scaling over 1,600 lbs. Although the lighter animals generally sold better, yet the heavy stock also sold well, especially at Glasgow. Canada's chief competitor in the export cattle trade is Ireland, from whence about three-quarters of a million cattle are received in Britain annually. On a quality basis this country has the best of the situation, but the short haul from the Emerald Isle, and the non-application of the embargo, requiring cattle to be slaughtered within ten days of arrival, make all the difference. The entrance of Canadian cattle into Britain is confined to Birkenhead and Glasgow. Before the war Deptford and Avonmouth were available as ports of entry, but they at present are closed. Their nearness to London make them desirable for shipments from this country.

The Growing of Flax.

Mr. R. J. Hutchinson, Chief of the Economic Division of the Dominion Experimental Farms, surely hits the nail on the head when he says in his recently issued bulletin, "Flax Culture," "diligent and systematic destruction of weeds always repays the cost of the work in the extra yield of the cultivated crop." The weeds most injurious to the growth and subsequent preparation of flax and the purity of any seed derived therefrom are Charlock, Redshank, Corn Marigold, Thistle, Field Bindweed, Flax Dodder and Dock. All weeds should be persistently destroyed throughout the rotation series. It has been claimed that flax impoverished the soil. This is not so if the field is kept clean, a fact that has been abundantly proved by experiments on several experimental farms. Mr. Hutchinson, in giving a list of manures and fertilzers that can be beneficially used, disproves another erroneous idea, namely, that flax is a non-manurial crop. For getting the best yield, rotations should extend over five, six or seven years, flax will do best after meadow or pasture. Rotations, however, are not rigid and must vary according to conditions. In preparing the soil, plowing and cross-plowing, or alternate grubbing, followed by harrowing and rolling are necessary. The soil must also be firm and sufficiently porous. The seed must be of good quality, heavy in weight, uniform in pickle, plump in body, smooth and slippery to handle, glossy and brown in appearance. Above all, it must be well cleaned.

The bulletin referred to deals with harvesting, deseeding, retting, scutching, and grading, upon all of which the flax-grower needs to be well informed.

Save your own flower seeds this fall.

Seed corn is best chosen in the field rather than from the bin, but must come from stalks which mature naturally and not prematurely as a result of root disease.

THE SUNDAY SCHOOL

OCTOBER 30.

Strong Drink in a Nation's Life. Isa. 28: 1-13. Golden Text—Hab. 2: 15.

Time and Place—About B.C.725 and B.C. 704; Jerusalem.

Lesson Setting—The great prophets of the eighth century B. C. (Amos, Hosea, Isaiah, Micah) lived in a degenerate age. A period of great prosperity was passing, and the sins of prosperity and civilization were ravaging the lime of Samaria and Jerusalem; luxury and extravagance, drunkenness and greed were undermining the foundations of morality and religion. With sin came God; he came to punish; that was Isaiah's word or warning. Could the people not hear the tramp of Assyrian horsemen? The Assyrians were the scourge in Jehovah's hand. City after city of Syria fell before their terrible onset. At length they encamped within sight of Samaria, the capital of the Northern Kingdom of Israel; in these circumstances Isaiah delivered the oracle in vs. 1-4.

Samaria fell in B. C. 722, and Judah, for the time, made her peace with the invader, at a great price. But Isaiah, the great prophet of Judah, warns his own people that a like doom to that of Samaria will come upon them, also, unless they forsake their sins.

I. The False Security of Drunkenness, 1-6.

V. 1. **Woe to the crown of pride;** not a wish, but a warning. The prophet has no pleasure in foretelling the doom of the sinful people, but, speaking for God, he must point out the certain end of their course. **Drunkards of Ephraim;** that is, Israel, here named from its chief tribe. Amos had indicted the people of Samaria thirty years before for luxury and debauchery, Amos 4: 1; 6. 1, 6. Isaiah saw their vices ripe for judgment, the people as good as ruined. **Glorious beauty;** the magnificent and luxury of Samaria. **A fading flower.** The wreath is already withered. **The head of the fat valley** (Rev. Ver.); the beautiful and fertile valley over which Samaria looked. **Overcome with wine;** literally "wine-stunned."

V. 2. **A mighty and strong one;** that is, Assyria, Jehovah's instrument, as in ch. 10: 5, for the punishment of sinful Israel.

Vs. 3, 4. **Trodden under foot** (Rev. Ver.); crushed by the remorseless invader. **Hasty fruit;** Rev. Ver., "first-ripe fig," which might appear in June, while the proper fig season was not till August. These early figs were counted a great delicacy. **Seeth . . in his hand . . eateth it up.** So swiftly and greedily will Assyria devour Samaria.

Vs. 5, 6. **In that day.** This points to the coming Messianic age. **Lord . . crown of glory . . diadem of beauty.** Jehovah will replace the false glory of splendor and luxury with the true glory of righteousness and purity. **The residue;** not merely the remnant left after the Assyrian conquest, but a remnant turned to Jehovah. **Spirit of judgment.** Jehovah, the true glory of his people, will guide his people's judges. **For strength.** He will also give valor to his warriors. **Turn back the battle** (Rev. Ver.); repel invaders.

II. The Foulness of Intemperance, 7, 8.

Vs. 7, 8. **They also;** the people of Judah as well as Israel. Nearly twenty years had passed since the fall of Samaria in B. C. 722. "There," said Isaiah to the people of Judah, "is a mirror for you to read your own character and destiny." Judean nobles, priests and prophets, too, were drunkards (see ch. 5: 11-17, 22, 23). But in their self-confidence they laughed at Isaiah's warnings.

III. The Insolence of Drunkenness, 9-13.

Vs. 9-13. **Whom shall he teach knowledge?** Did he take them for children, the drunkards asked, excitedly, when he surprised them at a carousal, that he should repeat over and over his preachments, v. 10. Isaiah turned on them with a terrible threat: "Jehovah is at hand. You stammer now with your wine-thick lips. Jehovah will answer in a stammering tongue (the barbarian accent of Assyria). And when he speaks to you in a stammering tongue, you will remember his plain words of promise and cheer, v. 12. You ridicule the A. B. C. of his deeds—judgment upon judgment, decay and ruin, slow, relentless, sure."

Application.

Strong drink in an individual's life is not a source of strength in any particular, but a source of weakness. Its habitual use tends to diminish the power of body, mind, heart, will and conscience. The use of strong drink offers no substantial gain, and does inflict, as a rule, untold loss. It is, therefore, a bit of speculative folly to take to strong drink at all as a beverage. This experiment is altogether one-sided. Everything to lose and nothing to gain.

What then is the true course for every boy and man in the nation? Is it not the free course of total abstinence? See how athletes, who perhaps make no pretence to religion at all, give up the drinking habit absolutely during their period of training in order that they may have a better chance of victory. Is it not a shame that men are not more willing to deny themselves for the sake of success in the greatest game of all—the game of the life indeed—the game that wins that true cup of satisfaction which brims full forever. If we only knew how to omit, how rich life should become. "Look not thou upon the wine when it is red."

Wanted--A Dish of Ice Cream

A Hallowe'en Story—By Myrtle Jamison Trachsel.

"I dare you—double dare you! Are you afraid?"

Melvin Terry and his twin brother Milton, "Mell and Mill" they were called, stood on the front porch watching an older brother walk proudly across the street to Ted Bowman's Hallowe'en party, to which the twins had not been invited because they happened to be three years younger than Ted, brother Jim, and the other boys of that little bunch.

"Are you afraid?" repeated Mell, and this time he met a flat denial.

"I am not. And besides they will never know we are there. We are almost as tall as Jim, and with ghost costumes on they will think we belong there. I like ice cream myself, and Mrs. Bowan always gives you lots of it."

"Then let's be moving. We'll pretend we are going to bed, then when we get fixed up we can climb down the rose trellis."

Mrs. Terry was surprised to find the twins going to bed so early on Hallowe'en, but she was only too glad to have them safely out of mischief. The boys took sheets and pillow-cases from the drawer of old linens, and behind their locked door they fixed themselves up as they had seen their mother dress Jim. Very quietly they slipped out of their window onto the roof of the porch. They had been up and down the rose trellis many times by daylight, but getting down at night, wrapped in trailing robes with two small holes to see through, was an entirely different matter. Mell tried it first, but the thorns of the roses would not even let him get started.

"I'll never get down with this blinder on," he whispered, and he pulled the pillow-case from his head and dropped it to the ground. He wrapped the sheet tight against his shoulders, but even then it was hard enough. The thorns scratched his legs and managed to be always in the way when he put his hand on the trellis. Only the thought of the ice cream gave the boys courage enough to get down that prickly ladder by night.

The door of Ted Bowan's home stood open, but there was no one about. The twins disgused by their ghostly attire, boldly entered the house to which they had not been invited. A Jack-o'-lantern stood on the hall table. Above it was a black hand pointing towards the stairs; it bore the words, "This way to the Goblin's Den."

They could hear laughter somewhere above, and they hurried up the stairs only to come to another hand, pointing toward the attic. At the top of the second flight of stairs they were met by a figure dressed like themselves.

"Shake, my friend," said the figure. Mell, who was leading, grasped the cold, clammy hand held out to him, then to his surprise it seemed to come off at the elbow. He stared at it a moment and then dropped it to the floor, much to the enjoyment of the other ghosts gathered around.

"It's only a long kid glove filled with wet sand," whispered Mill. "Remember the ice cream."

There were other surprises in store for the boys. They were asked to reach into the "Witches' caldron" and take out a fortune. But when they put their hands into the jars they touched the soft, squirming bodies of live frogs. They were told to walk down a narrow runway, and in doing so they stumpled onto a coil bedspring. The attic was lighted only by a few Jack-o'-lanterns and the boys could not see what it was they had come upon, nor how to get over it. So they had to flounder along the best they could.

"They're being extra nice to us," said Mell sarcastically. "Let's get out of here."

"Oh, they all had to do these things; we just happened to be the last. Look, they are going downstairs now and we will have ice cream."

They were going downstairs, sure enough, but not for refreshments. The ghostly figures seated themselves on the floor around an open fireplace, and began to tell ghost stories—of spirits haunting lonely places; of people being followed at night, and so on

The twins listened in silence. They were not frightened, but they felt pretty jumpy and they had to think hard of the ice cream they had come for. At last the mother of the host came in and asked the boys to come to the dining-room; the twins jumped up—but what was this? Ted Bowan had pulled off his sheet and pillow-case and was asking the others to unmask.

But the twins couldn't! They had come to the party unasked and if they refused to unmask, the boys would insist upon knowing who they were.

"Come," said Mell, and the twins slipped out of the front door unnoticed.

"All of that and no ice cream," wailed Mill.

"Hush!" cautioned Mell. "Let's slip around to the back. They usually have brick ice cream and we might be able to sneak out half a brick."

Quietly they crept around the house. A big freezer was being opened on the porch, the maid took out two bricks and carried them into the house.

"Now," whispered Mill, and he threw his leg over the railing. But before he could get his hand into the freezer the maid returned.

"You young rascals, get out of here!" she screamed, and the twins lost no time doing so. They ran over into the next yard and were greeted wth a hail from an upstairs window. "What do you want around here?" demanded the voice. "I've had enough gates walk away on Hallowe'en and if you don't move on I'll sic the dog on you."

The twins paused behind a tree, frantically trying to remove their sheet and pillow-case outfits.

"That's old Mr. James. Tell him who we are and say we are not bothering anything."

"Yes, I will," said Mell, "then he'll tell the Bowmans we came from—" Mell's speech was cut short by the sound of the old man calling to his dog.

"Take them out, Trilby," he called, and the dog answered with a short bark.

The twins jumped the back fence and ran down the alley, the dog close behind. The boys had no more than passed the Bowan house when he was at their heels—they had just time to clamber to the top of a low shed. Not in the least put out by the turn of affairs, the dog sat down in the alley and waited.

"Gee, do you suppose that dog is going to sit there all night?" Mell asked. "It looks like it," was the answer.

Seconds lengthened into minutes and the minutes became a half-hour and still the dog kept guard. Two weary boys watched from above.

"If this roof didn't slant so I would chance a nap. I suppose he'll get tired soon," said Mell.

They stretched out as best they could, intending to make the best of it. But the night was chilly and in a short time Mill sat up. The lights were being put out in the Bowan house. Already the lower floor was dark.

"The party is over, we can go home now. Wasn't the ice cream good?" joked Mill. His eyes were upon the attic window; he wondered why they had not put the lights out there. As he looked the blaze flared up, and he remembered a Jack-o'-lantern had stood by that window.

"Look!" he cried, "look at the attic window." A larger blaze showed; perhaps the window shade had caught.

Mell looked over the shed roof, the dog was not in sight. "Come," he said, "we must spread the alarm."

They managed to do this without themselves being known, and watched from across the street while the fire was being put out. It was a very little fire, but the boys had the satisfaction of knowing that they were the ones who kept it from being a big one. And this thought comforted them as they climbed up the rose trellis and got into bed.

They were late getting up the next morning. Jim was just finishing an account of the party when they reached the breakfast table.

"They had lovely refreshments, more ice cream than we could eat."

"Yes, I know," assented Mrs. Terry, "They sent over two big bowls of cream for the twins, but they were so sound asleep I couldn't rouse them. Papa and I ate it all. Boys, what made you lock your door last night?"

But the boys did not answer. They were looking at each other and thinking of all the things they had endured trying to get the cream they could have had by staying at home. And yet, if it had not been for their chilly sojourn on the shed in the alley, what might have happened to the Bowan house? So after all, the dish of ice cream they didn't get was well worth the trouble.

Solving a Marketing Problem.

Our big problem for years was how to get produce to town, where it was sold to consumers. This town, which is ten miles away, is the nearest market, and the roads are not always in good condition. Therefore, considerable time was lost in hauling. Finally, a meeting of the farmers was called, and a co-operative market system was discussed. They decided that, by co-operating, the delivery work could be performed more effectively, and much time saved. By beginning alphabetically, the man whose name came first should go from farm to farm, gather the produce, anl haul it to market. By this method each farmer only lost one day in every twelve, as there were that many members. They could also sell their produce every day at no expense, cash could be obtained, and regular consumers were found. This method pays so well and is so satisfactory that the trucking business has greatly increased. Two wagons instead of one are now required.—G. R.

The purebred sire is here to stay, and Mr. Scrub has had his day.

Do your doors stick when you shut them? Paint or varnish the edges. This may remedy matters.

Gloves and mittens—have you a good supply for husking corn? And hand lotion? Be prepared.

The man who wantonly abuses an animal will undoubtedly get what is coming to him somewhere.

If the sun were extinguished suddenly, we should not be aware of the fact until 8 minutes and 18 seconds afterwards.