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Want Ads.

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Strayed to my premises Lot 8, Con. 3, Euphrasia, a yearling heifer. Owner can have same by proving property and paying expenses.—W. T. Hall, Duncan. 79-81

FOR SALE

Apples for sale, by the basket. Os Walker, Markdale. 81-82

Comfortable brick house for sale. —Wm. A. Neely, town.

For Sale, general purpose mare, 10 years old.—J. A. Crowston.

For Sale—Bell organ slightly used, good as new. If you want the like act quick as it will soon go at the price asked. Crowston's Music Store.

For Sale—200 acres, good buildings, well improved, on Toronto Line—Drawer B, Markdale. 79-81

For Sale:— Ten cords maple furnace wood, about 40 inches, dry. R. S. Wiley, Jr., R. 2, Markdale, Phone 52r21. 82-3

Farm for Sale.—Lot 40, con. 9, Artemesia, 100 acres, 80 acres under cultivation, balance hardwood bush. Well fenced. Good buildings. Bank barn and straw shed. Drive shed, work shop. Good well with windmill. Water in barn. New 10-room brick house. Woodshed, hard and soft water in house, heated by furnace; also small orchard. Apply to Garnet Magee, R. 1 Eugenia. Phone Feversham. 75-c

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ORCHARD EXPERIMENTS

Cultivation and Pruning Tests by Government Agents.

It Pays to Enrich the Soil — Late Cultivation Not Advisable—Pruning and Spraying Advocated—Thrifty Ewes Mean a Big Lamb Crop.

(Contributed by Ontario Department of Agriculture, Toronto.)

FIVE leased orchards in the Counties of Simcoe, Norfolk, Prince Edward, Lambton and Ontario, all being in apple growing sections, were looked after by the Ontario Department of Agriculture during the war. Four of these have been very profitable. In the Prince Edward County orchard it was successfully demonstrated that new heads could be put on old trees.

The Department found that leasing apple orchards is a profitable business, but several things must be done to make it so. On the lighter soils many of the trees are positively starving while on the heavier lands this may not be so apparent. In the experiments very little commercial fertilizer was used, but the Department depended on the use of barnyard manure, mostly secured from Toronto. About seven tons per acre are sufficient for one application, which gives about 400 pounds per tree and the total cost is about $21 per acre. The amount looks big but there is no doubt that it will pay well to spread it much on light land nearly every year.

About six or seven years ago we began ploughing in the fall, several rows of trees in all the leased orchards (a portion being left in sod to test the sod mulch). This was done in order that we could answer from experience the frequent question —What about fall ploughing? When the land is fall ploughed cultivation can be begun much earlier in the spring. It costs much less to get land in good condition when it has been ploughed before winter, but we can see no advantage in ploughing closer than five feet from the tree. Upon the troublesome part in orchard cultivation, the trunk, and it is close to the tree without injuring the bark. frequently difficult to work near the trunk and it is close to the tree without injuring the bark.

We have tested cultivation against sod mulch, and have concluded that nearly all the orchards will be more profitable when cultivation is carried on, unless the land is first-class and there is plenty of barnyard manure for mulching. When to stop cultivation is rather hard to answer. It depends on the season. The drier the weather the later the cultivation should be carried on. On rich land apples will grow long after cultivation ceased. We are stopping our cultivation earlier and earlier every year because our Ontario apples lack color; less cultivation means more color, more color means higher priced fruit. Medium apples slightly colored seem preferable to large ones lacking color. When cultivation is stopped a cover crop is frequently sown. The principal object is to rob the soil of nourishment in order that the trees will fruit will color and ripen before winter comes. Some how goes to seed from cheap fertilizer.

[illegible] to make a one foot long spring, as cuts of [illegible] very old wood [illegible] pruning, [illegible] big orchard [illegible] very if good [illegible] Twenty for any tree [illegible] may be removed [illegible] bad effects. The [illegible] is easier pruned [illegible] be picked for [illegible] wind will not [illegible] down so many apples.—W. E. [illegible], Fruit Branch, Toronto.

Thrifty Ewes Mean Bigger Lamb Crop.

The best results from breeding are obtained from ewes that are in a gaining condition. If they are thin from having been kept on short fall pastures, they should have a little grain—from one-quarter to one-half a pound a day. This will put them in good condition and they will breed earlier and increase the lamb crop.

Some fairly accurate record should be kept when the ewes are bred in order that when lambing time approaches the ewes may be separated from the main flock and given extra feed and care. If ticks, lice or scab appear in the flock, the sheep should be dipped even though the weather is a little severe. This is extra work, but the flock will be more healthy and thrifty. A warm place should be provided the sheep until they dry off.

The ram should also receive extra care at this time. In order to keep him active, vigorous and in fair flesh during the breeding season he should be fed a pound or two of grain every day. "Extra care of ewes and breeding ram at this time," says Mr. Anderson, "will insure a larger and stronger lamb crop and well repay the flockmaster for his extra labor."

Farm Notes.

From now on empty the hopper of the gasoline engine after using, and protect batteries from frost.

Do not forget that salt and water are as necessary for the cow as is feed. A tablespoonful of charcoal mixed with the feed aids digestion.

The dairy farmer not only studies how to feed his cow, but how to feed his land. He is not a soil robber, as he realizes that the farmer who reduces the fertility of his land robs without reason, since he steals from himself.

WHEN THE HORSE FALLS

First Unhitch and Speak Kindly to Him.

Asphalt and Ice Bad Combination—Special Shoeing Sometimes Necessary—Stars in Falling in the Movies.

(Contributed by Ontario Department of Agriculture, Toronto.)

WHEN a horse falls in harness he should be immediately supported to regain his feet. A strong, healthy horse will not usually down voluntarily, but in his efforts to rise he may become frightened. If the driver will give the right kind of first aid he can prevent serious injury to the animal, says the United States Department of Agriculture.

First Unhitch Horse.

Held down by the harness, the horse seldom has sufficient freedom to rise to his feet. Enough strength to struggle and injure himself by pounding his head on the ground. Accordingly, the driver should calm the horse first by speaking in a reassuring tone, and, by placing his knees upon the animal's neck just back of the ears, endeavor to prevent injury from struggling or from bruising his head. An intelligent horse quickly learns to place great confidence in the voice of a good driver.

The traces and breeching straps should be unfastened and the vehicle rolled back from the fallen animal. If the horse is in double hitch, the traces and yoke strap should be unfastened and the pole, vehicle, and working mate moved a short distance away. An injured horse will which regain his feet readily on level unobstructed footing. In case the ground is icy, scatter some fine sand, sawdust, or straw under and in front of him. If nothing of this kind is available, spread a blanket, burlap bagging on the pavement to give him better footing as he attempts to stand.

When the Horse Lies Broadside.

In case the horse needs more help and encouragement, and especially if he lies broadside, roll him on to his chest, with the fore legs under the belly. Then work both fore legs forward until the feet are firmly on the ground and knees flexed. If after repeated efforts and good footing he continues to fall back upon the ground there is possibly some injury to the hind parts, such as a fracture of the hip or leg, which should be examined by a qualified veterinarian.

In all effort to assist a fallen horse do not forget that in rising to his feet he raises the head and fore parts first. This is directly opposite to the habit of the cow, which elevates the hind parts first.

Asphalt Especially Treacherous.

Injuries to horses are common during the winter months in cities where snow becomes packed and forms an icy coating on the pavement. In most cities above the frost belt there are times when pavements are slippery.

Asphalt is especially troublesome and when covered by a very light sleet or snow makes a very treacherous footing for horses. The milkman or baker, who drove upon a clean pavement the night before may find the streets at 4 a.m. so nearly impassable from a coat of smooth ice as to delay his deliveries very greatly or even prevent them entirely.

Special Shoes and Careful Driving.

In country districts horses remain sharp or rough shod for a considerable time. But if they are driven much on city streets paved with stone, cement, or asphalt, from which the snow has been removed, their shoes quickly become smooth and it is difficult for the horses to keep their feet.

When the front feet slip backward a horse is likely to fall and injure his knees, while side slipping generally causes him to come down broadside. Shoeing with rubber pads, or the use of emergency appliances may lessen the chance of slipping, but as there is always the possibility of a horse falling, even when well shod, careful driving and precautions against overloading are important additional means for reducing horse accidents and injuries to a minimum.—U. S. Weekly News Letter.

Methods in Sheep Raising Shown In Moving Picture.

A motion picture film dealing with sheep on the farm has recently been completed by the film laboratories of the United States Department of Agriculture in co-operation with the Bureau of Animal Industry. The film is used by county agents, county or state sheep-breeders' associations, agricultural colleges, and other department or co-operative workers or agencies.

The film is in three sections and four reels. About 45 minutes is required for the showing of the whole production.

The subject treated in the first and second reels is a year with the flock on the farm, beginning in the fall at the time that the ewe flock should be culled prior to breeding, and carrying it on through until the lambs are sold. Each seasonal practice is brought out and educational points are featured. The third reel deals with the co-operative marketing of wool and lambs, and the fourth reel with the slaughtering of a mutton sheep, dressing the carcass, and then cutting it up for meat consumption.

The average farm implement is only about half worn out by use alone. The rest of the wear is due to rust and decay. The greatest possible profit is made out of machinery when it is used continuously for profitable work until it is worn out.

A tree will make a million matches—a match may destroy a million trees.

HOW TO FIGHT THE RAT

One of the Greatest Menaces to Farm Profits.

Rat-proof Buildings and Cribs a Necessity—Guillotine Traps Best—Handle Poisons and Baits Carefully.

(Contributed by Ontario Department of Agriculture, Toronto.)

THE rat is the worst animal pest in the world. From its home among filth it visits dwellings and storerooms to pollute and destroy human food.

It carries bubonic plague and many other diseases fatal to man and has been responsible for more untimely deaths among human beings than all the wars of history.

In the United States rats and mice each year destroy crops and other property valued at over $200,000,000. This destruction is equivalent to the gross earnings of an army of over 200,000 men.

On many a farm, if the grain eaten and wasted by rats and mice could be sold, the proceeds would more than pay all the farmer's taxes.

The common brown rat breeds six to ten times a year and produces an average of ten young at a litter. Young females breed when only three or four months old.

At this rate a pair of rats, breeding uninterruptedly and without deaths, would at the end of three years (16 generations) be increased to 359,709,482 individuals.

For centuries the world has been fighting rats without organization and at the same time has been feeding them and building for them fortresses for concealment. If we are to fight them on equal terms we must deny them food and hiding places. We must organize and unite to rid communities of these pests. The time to begin is now.

Granaries, cornaribs, and poultry houses may be made rat-proof by a liberal use of cement in the foundations and floors; or the floors may be of wood resting upon concrete. It has been found that in poultry houses, dry soil or sand may be used as a covering for the cement floor, and in stables a wooden floor resting on concrete is just as satisfactory so far as the exclusion of rats is concerned.

The common practice of setting cornaribs on posts with inverted pans at the top often fails to exclude rats, because the posts are not high enough to place the lower cracks of the structure beyond reach of the animals. As rats are excellent jumpers, the posts should be tall enough to prevent the animals from obtaining a foothold at any place within three feet of the ground. A crib built in this way, however, is not very satisfactory.

For a rat-proof crib a well-drained site should be chosen. The outer walls, laid in cement, should be sunk about 20 inches into the ground. The space within the walls should be grouted thoroughly with cement and broken stone and finished with rich concrete for a floor. Upon this the structure may be built. Even the walls of the crib may be of concrete. Corn will not mold in contact with them, provided there is good ventilation and the roof is water-tight.

However, there are cheaper ways of excluding rats from either new or old cornaribs. Rats, mice, and sparrows may be kept out effectually by the use of either an inner or an outer covering of galvanized-wire netting of half-inch mesh and heavy enough to resist the teeth of the rats. The netting in common use in screening cellar windows is suitable for covering or lining cribs. As rats can climb the netting, the entire structure must be screened, or, if sparrows are not to be excluded, the wire netting may be carried up about three feet from the ground, and above this a belt of sheet metal about a foot in width may be tacked to the outside of the building.

Owing to their cunning, it is not always easy to clear rats from premises by trapping; if food is abundant, it is impossible. A few adults refuse to enter the most innocent-looking trap. And yet trapping, if persistently followed, is one of the most effective ways of destroying the animals.

For general use the improved modern traps with a wire fall released by a baited trigger and driven by a coiled spring have marked advantages over the old forms, and many of them may be used at the same time. These traps, sometimes called "guillotine" traps, are of many designs; but the more simply constructed are preferable. Probably those made entirely of metal are the best, as they are more durable. Traps with tin or sheet-metal bases are not recommended.

A small section of an ear of corn is an excellent bait if other grain is not present. Other excellent baits for rats and mice are oatmeal, toasted cheese, toasted bread (buttered), fish, fish offal, fresh liver, raw meat, pine nuts, apples, carrots, and corn, and sunflower, squash, or pumpkin seeds. Broken fresh eggs are good bait at all seasons, and ripe tomatoes, green cucumbers, and other fresh vegetables are very tempting to the animals in winter. When seed, grain, or meal is used with a guillotine trap, it is put on the trigger plate, or the trigger wire may be bent outward and the bait placed directly under it.

Among the principal poisons that have been recommended for killing rats and mice are barium carbonate, strychnin, arsenic, phosphorus, and squills.

Poison for rats should never be placed in open or unsheltered places. This applies particularly to strychnin or arsenic on meat. Packages containing poisons should always bear a warning label and should not be kept where children might reach them.—Condensed from U. S. Farmers' Bulletin No. 998.

DISTRESS IN EUROPE

British Empire Effort to Help Smaller Nations.

Canadian Red Cross to Organize Appeal on Behalf of Orphans—Call to Be Made In Armistice Week.

An urgent appeal for aid to combat the widespread disease and distress in the war-stricken areas in Europe has been made by the League of Red Cross Societies to the nations which have suffered least from the war. In response a War Relief Fund has been undertaken in Great Britain with an Empire-wide appeal for contributions. The Fund is under the immediate patronage of His Majesty the King and has the support of all parts of the Empire.

His Excellency, the Governor-General of Canada, having received communications from London upon this matter, consulted the Prime Minister, and with his approval referred the question to the Canadian Red Cross Society, and it was arranged for an appeal to be made in Canada during Armistice week in November. The Fund will be known as "The British Empire War Relief Fund."

To Make Known the Need.

The Canadian Red Cross Society accepted the task of making this appeal known throughout Canada only in view of the relentless circumstances and the humane desire to help to alleviate the terrible suffering of a large number of peoples. The reasons are numerous and compelling. Large populations are suffering from distress and disease. Millions of innocent children are among them. Even in time of peace great numbers of their people lived close to the bread line. The war drained them of all their surplus resources.

Through the years of strife they were denied all but the barest necessities, and their condition now is pitiful indeed. History has repeated itself. The disease which took such fearful toll of human life after the Thirty Years' War, the Seven Years' War (1757-65), and the Napoleonic Wars are again widespread, and now there are millions of people in Galicia, Poland, Jugo-Slavia and Roumania who, in addition to being poverty stricken, are in the direst misery and despair on account of disease. In some twelve countries, most of which were either our Allies or friendly to the Allied cause, modern civilization is faced with the inevitable consequences of a great war through partial famine and pestilence.

A Previous Epidemic.

That the epidemic is now one of alarming proportions and terrible in its effect may be noted from the following quotation from "The Times":

"At present the worst results of typhus are confined to Galicia, where the schools are closed, business is at a standstill, and civic life is crippled. The whole community is faced with starvation, whilst the absence of clothing and drugs makes it impossible for the authorities to make any headway against the epidemic. Here we have a country into which the idea of modern sanitation has never penetrated; for the most part there is no water supply in the smaller towns and villages, save wells, whilst the work of sewers is done by open gullies, running through the streets. There are no doctors, no nurses, and no beds, and the miserable typhus-stricken patients lie unattended on the bare floor. Throughout the rural districts whole families exist in miserable one-roomed huts, their diet consisting of starvation rations of potatoes and beet, both bread and meat being luxuries rarely seen. In almost every hut there are several cases of typhus and in many instances whole families are stricken with the disease, and are perforce left to die unattended."

Many Countries Are Suffering.

What is said of Galicia is true of other countries of Europe, such as Esthonia, Lithuania, Latvia, huge territories of the Ukraine, Soviet Russia, Jugo-Slavia and Czecho-Slovakia. Nor is typhus the only affliction. Tuberculosis, smallpox, dysentery and relapsing fever are also ravaging large areas.

Lack of Medical Aid.

These terrible conditions have been called to the attention of the people of the British Empire in a statement by the Right Hon. Arthur J. Balfour, who, speaking for the Council of the League of Nations, says:

"Men, women and children are dying by thousands, and over vast and civilized areas there are neither medical appliances nor medical skill sufficient to cope with the horrors by which we are faced. Governments have in certain cases done all in their power to bring relief, but there remains a vast field for charitable enterprise which can be dealt with only by voluntary effort."

Eleven Million Orphans.

Dr. Livingstone Farrand, chairman of the Central Committee of the American Red Cross, who has just returned from Europe, states that there are 11,000,000 fatherless children in Europe who face the next few years without hope of adequate care, unless outside assistance is given.

For Suffering Children.

No stronger call could be made to humanity than that of suffering children, and on their behalf particularly the Canadian Red Cross will appeal throughout Canada during Armistice week. Each provincial division of the Red Cross will have charge of the arrangements in its own province, and all Red Cross workers should put themselves into touch immediately with their local branch or with the Headquarters of the Provincial Division if no local branch is organized.

EUROPEAN CORN-BORER

Something About a New and Most Undesirable Pest.

Found This Summer In Many Western Ontario Counties—Description and Life History—Methods of Control.

(Contributed by Ontario Department of Agriculture, Toronto.)

IT is always a matter of concern when a new pest is introduced into a country and especially when that insect attacks an important crop such as corn. In August the European Corn-borer—a European insect—was discovered in Ontario and extensive scouting by entomologists revealed the unpleasant fact that it was distributed over about three thousand square miles, being found in the counties of Welland, Haldimand, Elgin, Middlesex, Oxford, Kent and Huron. In some of these counties only small areas here and there seem to be infested, but in others the infestation is much more extensive. The worst infestation is in Elgin County, between St. Thomas and Port Stanley where several cornfields showed from 50 to 90 per cent of all the plants to have been attacked. There is no doubt that the insect could not be so widely distributed or abundant unless it had been here for several years. It seems strange that no corn-grower reported it, but the explanation, doubtless is that they thought it was some old pest that had become abundant for a year or two and would soon pass away or become of no importance.

It is impossible at this stage to say how great a menace the insect will be; for no one knows, not even the best informed entomologists. Judging, however, from what we have seen this fall it cannot be exterminated and will gradually spread throughout the province and be a greater menace than any other insect of the province. Yet, there is very little doubt but that by the combined operation of the Dominion and Provincial Entomologists, together with entomologists of the United States (for the insect occurs in New York and Massachusetts), a practical method of control will be discovered and corn continue to be as successfully grown in the future as in the past.

It may be of interest to know that ever since the insect has been discovered vigorous efforts have been made by the Provincial and Dominion Departments of Agriculture, with their entomologists, to find out everything they could about it by means of expeditions throughout the western part of the province and studying the insect in detail. They have also brought the Agricultural Representatives to Toronto and discussed with them methods of control. Plans are moreover being made for a very careful study of the insect by both Departments next year including methods of control. Valuable information of any kind that has discovered will, of course, be published to the press so as to be available to every farmer.

Brief Description and Life History of the Insect.

The borer, full grown, is a fairly stout caterpillar about one inch long, pale brownish-white on the upper surface and whitish beneath, with a brown head and dark brown spots on each segment of the body. These spots are not very conspicuous to the naked eye but can be seen easily with a hand lens. The winter is passed in the larval state in burrows inside corn-stalks, stubble and sometimes in weeds. In the spring the larvae feed to a slight extent and then pupate in the stalks. In June the moths appear and lay their eggs in white clusters on the leaves. The larvae hatching from these feed at first on the leaves or on the tassels and then begin to bore into the stalks and ears, making large tunnels in the former and feeding on the kernels in the latter. As the weather approaches fall they make comfortable burrows for themselves in the stalks or in the ears or in weeds. There is only one generation a year in Ontario as far as known.

Nature of the Injury.

Injury is done chiefly by the larvae burrowing into the canes and causing them to break over in the wind; tassels especially break easily. A further injury is done by larvae feeding upon the kernels in the ears and by disease, especially in wet, warm weather, entering the holes, both in ears and stalks, causing rot. Although all varieties of corn are attacked, table varieties suffer most and demand immediate control.

Methods of Control.

The methods of control that naturally suggest themselves are as follows:

1. Sow dent corn unless there is some special reason for preferring flint.

2. Cultivate well in the early season to keep down weeds so that they may not harbor the pest.

3. If you have not a silo use one if you can because all the corn put into the silo is saved.

4. Cut the corn just as low as possible for otherwise many borers will be left in the stubble, but if cut low over 90 per cent will be taken into the silo.

5. Put the corn into the silo as soon as possible after cutting to prevent borers coming out of the stalks and entering the silo.

6. If there is no silo and borers are present it will be necessary to burn the stalks and cobs or run them through a shredder to kill all borers present.

In conclusion we request that any person outside of the counties referred to above, on finding a borer in the corn, to put it in a tin box and send it either to Mr. Arthur Gibson, Dominion Entomologist, Ottawa, or to L. Caesar, Provincial Entomologist, O. A. College, Guelph. This will help us in our work against the pest.—L. Caesar, O. A. College, Guelph.

USING FARM TRACTORS

Viewing the Matter as a Purely Business Proposition.

Sitting Down to Count the Cost—What the Machines Can Do—The Personal Factor In Tractor Management Important.

(Contributed by Ontario Department of Agriculture, Toronto.)

THE farmer, who is always of a conservative nature, is not so readily convinced of the tractor's paying qualities. He has seen demonstration machines with one man ploughs as much ground in an hour as he could plough in a day; he has also seen tractors give a very creditable showing on the belt. Then again he has seen machines which for some reason or other did not give satisfaction; he has also seen instances where machines were tied up for weeks for want of a spare part to replace a broken one. The result is that they are not "falling over each other" to buy tractors. A tractor costs a lot of money, and he is afraid to make the plunge, not being so certain that it will pay for itself.

An old saw-miller once said to the writer: "Every second that saw is not actually cutting lumber she is a bill of expense." Manufacturers tell us that the factory which can be kept going twenty-four hours a day is the factory which gives the biggest returns. The same is true of the farm tractor; the most profitable machine is the one which is kept at it for three hundred days of the year. This means that if we have not enough work to keep the machine going for a certain length of time each year we will be losing money.

The debt which a tractor must wipe out when it sets foot upon a farm is a two-fold one. First it must more than repay operating expenses, and second it must pay what the manufacturer calls "overhead expenses." The machine has no reason to fear the former obligation when it is properly handled. We know that the cost of ploughing with a tractor costs only from $1.25 to $2.00 an acre, while horse-ploughing will come to anywhere between $2.50 and $6.00 per acre, while other work shows an equally favorable comparison for the tractor. Besides the draw-bar work the tractor offers itself as a source of belt power which work horses have long since ceased to perform.

The "overhead" expenses which the tractor must face consist mainly of interest on money invested, together with a reasonable allowance for depreciation on the tractor itself, plus the price of any machinery bought expressly for use with the tractor. The price of a three-plough tractor is somewhere near $1,400; the ploughs cost $200. To this we must add say $500 for part ownership of a thresher and silo-filler. This makes $2,100 in all. The interest on this at 7 per cent, is equal to $147.00, and the depreciation of 10 per cent per annum is equal to $210, or a total of $357, which our tractor must face, no matter how much or how little work it does. If the machine does only ten days of work per year the cost of the overhead per day would be $35.70. If, however, the machine is used for one hundred days the overhead drops to $3.57 per day. So that the greater the number of days in which the tractor is employed per year the more profitable will the machine prove.

There is plenty of work for a tractor on most Ontario farms, but the work is not in such shape that the tractor can do it satisfactorily. A tractor cannot do good work on small fields. Turning around even with a small tractor, is labor as much for both the operator and the horses, and is not conducive to the proper amount of work per day nor to the best quality of work.

Most Ontario farms have too many fences for profitable tractor farming, to say nothing of being ugly. Fences mean waste land, favor weeds, and it costs more than the usual quota of fences to keep them. It does to build a fence here and there when needed and roll up when not needed. Removing some fences is the first step toward farming by the tractor. It is hard work to drive among stumps and boulders with horses. With a tractor it is possible to do good work in such locations. The second step in favoring our work for the tractor is to remove all obstructions. Give the tractor a fair chance at its work and not disappoint you.

In summing up the tractor question as a business proposition we must consider the following points:—

1. That the tractor will do farm work more cheaply than horses can do it, if the work is properly arranged for the tractor.

2. The personal factor in tractor operation is so great that it alone may cause success or failure.

3. When a tractor is kept busy enough, its upkeep and overhead cost per year is far less than the same on the horses, which it is able to substitute for.

4. Belt work constitutes a large portion of the tractor's usefulness. In order to make it a paying proposition, it must do the farmer's belt work.—L. G. Heimpel, Kemptville Agricultural School.

Save Manure.

There has never been a time when the making, saving, and utilizing of all sorts of farm manure was so essential. All fertilizing material is high in price, and some kinds cannot be had in sufficient quantities at all. Farm manure may be used for a number of purposes to a much greater advantage than commercial fertilizers. The total quantity of manure can be greatly increased by keeping live stock sheds and stables well bedded with straw, leaves, and other refuse about the farm.