SAFE CURE

FOR THE KIDNEYS, LIVER AND URINARY ORGANS THE BEST BLOOD PURIFIER.

There is only one way by which any disease can be cured, and that is by removing the cause whenever it may be. The great medical authorities of the day declare that nearly every disease is caused by deranged kidneys or liver. To restore these therefore is the only way by which health can be secured. Here is where WARNER'S SAFE CURE has achieved its great reputation. It acts directly upon the kidneys and liver and by putting them in a healthy condition drives disease and pain from the system. For all Kidney, Liver and Urinary troubles, for the distressing disorders of women; for Malaria, and physical troubles generally, this great remedy has no equal. Beware of impostors, imitations and concoctions said to be just as good.

If you Diabetes ask for WARNER'S SAFE DIABETES CURE.

For sale by all dealers.

H. H. WARNER & CO., Toronto, Ont., Rochester, N.Y., London, Eng.

Rheumatine

An Internal Remedy and a SURE CURE for all kinds of

Rheumatic Complaints

SUTHERLAND'S TRADE MARK RHEUMATINE

If you are suffering from

Kidney Complaints

TESTIMONIAL

From Squire Robertson, who for many years was Reeve of the Township of Normanby, a highly respected resident of that part of Ontario, having lived in that Township for the past 20 years:—

J. N. SUTHERLAND, Niagara Falls, Ont., May 17:

DEAR SIR,—My daughter has been a great sufferer from Rheumatism. She has been obliged for years now to carry her arm in a sling, and her hand was beginning to wither. During these years she has tried all the many cures that have been advertised, without any result. Seeing your advertisement in the papers, giving testimonials from trustworthy people, I determined to procure some "Rheumatine" for her, and purchased two bottles of Mr. Wm. Hamilton, Druggist, of Mount Forest, which she took strictly according to directions, with this result, that her arm is now completely restored. I cannot praise your medicine too highly, indeed it is worth its weight in gold to all who suffer from Rheumatism, and it is with pleasure that I come forward to say so. I am yours truly, JOHN ROBERTSON.

SOLD BY ALL DRUGGISTS.

Farmers Please Consider This.

THE PERRY DAVIS PAIN KILLER acts with *wonderful rapidity* and *never fails*, when taken at the commencement of an attack, to cure

Cholera, Cholera Morbus,

as well as all summer complaints of a similar nature.

For Toothache, Burns, Scalds, Cuts, Bruises, &c.

the PAIN KILLER will be found a willing physician, ready and able to relieve the suffering without delay, and at a very insignificant cost. For

Colic, Cramps,

—AND—

Dysentery in Horses,

the PAIN KILLER has no equal, and it has never been known to fail to effect a cure in a single instance. It is used in some of the largest livery stables and horse infirmaries in the world. To resuscitate young lambs or other stock chilled and dying from cold, a little PAIN KILLER mixed with milk will restore them to health very quickly.

☞ The PAIN KILLER is for sale by Druggists, Apothecaries, Grocers and Medicine Dealers throughout the world.

By Universal Accord,

AYER'S CATHARTIC PILLS are the best of all purgatives for family use. They are the product of long, laborious, and successful chemical investigation, and their extensive use by physicians in their practice, and by all civilized nations, proves them the best and most effectual purgative Pill that medical science can devise. Being purely vegetable, no harm can arise from their use, and being sugar-coated, they are pleasant to take. In intrinsic value and curative powers no other Pills can be compared with them; and every person, knowing their virtues, will employ them when needed. They keep the system in perfect order, and maintain in healthy action the whole machinery of life. Mild, searching, and effectual, they are especially adapted to the needs of the digestive apparatus, derangements of which they prevent and cure, if timely taken. They are the best and safest physic to employ for children and weakened constitutions, where a mild but effectual cathartic is required.

For sale by all druggists.

NOTICE TO YOUNG & OLD.

The celebrated DR. H. HOLLICK, of London has established an agency in Toronto for the sale of his medicines for the sure cure of all nervous diseases, arising from whatever cause. Enclose stamp for pamphlet, which will be sent in sealed envelope to all who address to

465 YONGE STREET, TORONTO.

LADIES!

Mentro-Pillens, only hair restorer. Permanently dissolves superfluous hair, root and branch, in 3 minutes painlessly, without injury to the skin. 2 stamps for particulars. The DIVERSITY CHEMICAL PREPARATION CO. formerly Wilson Chemical Preparation Co., 602 Spruce St., Phila., Pa.

AGRICULTURAL.

We will always be pleased to receive letters of enquiry from farmers on any matters affecting agricultural interests, and answers will be given as soon as practicable.

BLIGHTED WHEAT.

Correspondents of the *Michigan Farmer* say that wheat in their localities has been seriously damaged by blight, and reports from other parts of the State show that the injury extends over the whole of Michigan. One of the correspondents says "one-fifth of the heads are affected more or less, some at the base, some at the middle, some at the apex; while others are entirely destroyed." High or low lands make no difference, as the work of destruction is carried on regardless of soil or surroundings. The editor of the *Farmer* sent specimens of damaged heads to Prof. Beal, of the Michigan Agriculture College, who carefully examined them, and came to the conclusion that the trouble was caused by some fungi, which might occur on any dwindling or decaying plant. "This year," the professor says, "has been favorable for fungi. We have had no end to rain; the plants have had too much water; too little light. The stalks and all the rest are succulent and not used to sunlight. With all these, and now and then a still, warm day, called 'muggy' weather, you may look out for wheat blight. The soils of this grain in many cases are nearly, or quite, destitute of starch, upon which the fungi have fed. I know no remedy. Fortunately, I may say, with good weather it is not likely to be troublesome, though even this may be an unfair statement."

The Hon. Henry Chamberlain, of the Michigan State Board of Agriculture, and an observant farmer, says he has noticed this, to him, new calamity to the wheat, and finds that some varieties suffer more severely than others. Egyptian wheat, which is the earliest, was injured from five to ten per cent.; Fultz, ten to twenty; Clawson, eight to twelve; and Rogers, the latest variety mentioned, about two or three per cent. Mr. Chamberlain says the same thing has occurred in Illinois, where it is called "scat," spring wheat being damaged there. He is of opinion that the wet weather, followed by an excessively hot spell, worked the mischief, as he carefully looked over his own fields and saw no signs of blight, but on a second inspection some twelve days later, the mischief had been fully accomplished. If the damage is as great as is anticipated, the results to the crop will be very serious, and the estimate formed not long since of the harvest will be greatly beyond the mark when the crop is threshed.

THE POTATO CROP.

The opinion prevails in some quarters, especially among produce dealers, that late potatoes will command high figures the coming fall, and some of them are already figuring upon fancy profits if they can secure large stocks early in the season for winter sales. This conclusion has been arrived at from reports received from some parts of the United States, where it is said farmers have largely planted the early varieties, almost completely ignoring later ones, as the prices obtained for the former are greatly in excess of those of the latter. This may be true of some localities, but reports from other places, especially the New England States, show that there will not only be more than an average crop there, but also that a greater acreage has been planted during the present year. The high prices which have been ruling for the past few months inducing farmers to engage more largely than usual in potato culture. It was expected that the ravages of the beetle in the Maritime Provinces would have almost destroyed the crop there, but latest advices are hopeful, as the farmers have made systematic onslaughts on the pest, and with so much success that the crop is expected to reach the average of other years. This will take an anticipated market away, and it is probable that few, if any, shipments will be necessary to the North-West, as reports from there are very encouraging. Some speculators may advise our farmers to hold on this fall for higher prices, but such advice should not be followed without consulting market reports, as a general withholding of supplies would only result in a temporary advance in values, and be doubtless followed by a great fall. The *Massachusetts Ploughman*, in reviewing the situation of the potato crop, and probable prices a few months hence, says:—

"Unless some unforeseen change takes place, prices must rule very low next October. Those who are fortunate enough to have their potatoes come in early will get a fair price, while those who come into the market with their potatoes late in the season will probably have to sell very cheap. When potatoes command from fifty cents to a dollar a bushel, as they have during the last few years, the crop is one of the most profitable which the farmer can grow, but when the price comes much below fifty cents it is a question whether there are not other crops that can be made to pay better. To those who keep cattle, there are several objections to the potato crop. First, it is a crop that furnishes no fodder for the cattle. Second, the small, unsaleable potatoes do not make a desirable food for farm animals unless washed and cooked. Third, by selling the potatoes, the farm is made poorer unless money is paid out for fertilizers. Fourth, the labour of harvesting, assorting, and marketing is more than that of many other crops. But with all of these objections, some farmers are so situated that they can raise an acre or two of potatoes without draining too heavily on their time, or impoverishing their farms to an extent beyond what they can restore them, by carefully saving all of the waste materials of the farm.

"One point appears to be well settled, which is that he who is to raise potatoes at a profit must manure the land liberally, plough and pulverize the land well, and cultivate the crop thoroughly. The potato beetle has done much to encourage the growing of larger crops of potatoes, for it has been found to be as much work to keep the beetles from an acre of land that will yield not more than a hundred bushels as it is one that will yield four hundred bushels."

THE FARM.

A potato beetle has been known to deposit 2,300 eggs in a single season, and it is easier to put on London purple or Paris green to destroy the one beetle than the 2,000 slugs. Kill them by applying the poison as soon as they make their appearance, and but few will be seen.

A Canadian farmer has thirty bushels of beans which were put in by a seed drill. By leaving out the tubes the drills have been run thirty inches apart, which is just the right distance for cultivating with a scuffler. As many beans can thus be put in in a day as any other grain, which is a great advantage over the old system of hand-planting.

Everyone will acknowledge a rat to be a nuisance about house or barn, but very few people realize how much a colony of rats will devour or destroy in a year, or how rapidly they increase when unmolested. It may be well to know that if coal tar is daubed about their holes, so that they cannot pass without getting it on their fur, they very soon desert the place.

A correspondent of the *Country Gentleman* says if farmers would smoke their seed corn thoroughly, the birds or squirrels would not eat or dig much of it. If seed wheat has oats in it that cannot be taken out with a fanning mill it can be cleaned by making quite a strong brine; filling a wash tub half full of it, and then throwing in half a bushel of wheat at a time. Stir it around, and the poor wheat and the oats and weed seeds will rise to the surface, and can be skimmed off. Then take out the wheat, lay it where it will drain off, and it is ready for sowing, even if it is a little damp. It generally pays for all trouble to procure the best seed.

A correspondent of the *Country Gentleman* says: "A heavy crop of clover is sure death to daisies. They seem to be smothered by the ranker growth of clover, and fail to mature their seeds. In a field where there is a growth of daisies, a generous use of fertilizers, especially of barn-yard manure, and keeping the field seeded to clover, using an extra quantity of seed for this purpose, and breaking up every two years, cultivating for a while, and again seeding to clover thickly, will finally eradicate the daisies."

India has a North-West, and North-Western India is an excellent wheat-producing region. Its annual production is about 240,000,000 bushels. Last year out of this immense growth it exported 37,135,000 bushels, half of which went to England. The exporters of wheat from India are handicapped by the long distance the grain has to travel, but efforts are being made to improve the shipping facilities, and if these are successful, India will become a competitor in the wheat market with Canada and the United States.

A correspondent of the *Ohio Farmer* says that the good effect of salting clover is unquestionable; that it brings out the full flavour of the hay, but that if too much salt is used it will be sickening. To throw into the mow or on the stack great quantities of salt is to absorb too much moisture, a second fermentation sets in, and mould results. In that condition it is nauseous to stock, and if growing hunger forces them to eat it, heaves and other disorders are apt to follow. A portion of the mouldiness escapes as a penetrating dust when stirred. This gets into the lungs, and the effort of nature to expel causes an unnatural action.

The Wheat Bulb Worm.

A new insect enemy of winter wheat has lately come to notice in Central and Southern Illinois, where it has done most serious mischief in some localities; and, as it will soon be too late to make observations upon it, the immediate attention of those interested is earnestly invited to this subject. Wherever it has thus far been detected, it has previously been confounded with the Hessian fly, and it is not impossible that much of the damage attributed to the latter insect, in the southern half of the State, is really due to this hitherto unknown pest.

The insect is now burrowing in the base of the stem of the wheat, just above the root; and the pupa occurs in the same position. The effect is to stop the growth of the plants, and ultimately to kill it. There is abundant evidence that the grub leaves one stalk for another, so that a single insect may perhaps destroy an entire stool. Fields have been completely ruined by this pest, so they are now being ploughed up for other crops. Where the injury is less complete, it has the effect to deaden the wheat more or less completely in spots. The insect may be found by carefully stripping down the leaves of the affected stems until the centre is reached, where, if it still remains, it will be found buried at the base of the growing stem.

As this insect has only been known to us for a few weeks, it is of course, impossible to give any sufficient account of its development. It is certain, however, that the worms hatched in the fields in the fall, after the wheat was sown, and that the principal part of the injury was done before frost. It will now soon transform into a minute fly, which will probably rear a second brood later in the season. This fly will be no larger than a mosquito, but much thicker and more robust. —*S. A. Forbes, State Entomologist for Illinois.*

Experiments with Corn.

In Dr. Sturtevant's experiment last year he found that the grains from the tips of ears of corn produced more sound grain, and a larger amount altogether, than those from the centre or butts. There is a reason for all these results, and Dr. S. suggested to me that the explanation was that the well-formed grains on the tips of the ears had a fullay chance for development in their normal shape. A grain of corn, if left with ample room, swells on each side, and assumes a round form. In the centre of the cob the grains are pressed closely together, and are long and flat. At the butts there is some compression, but not so much as in the centre of the cob. The crop, from these various facts, indicates the correctness of this theoretical explanation. To test the matter still farther, I have taken some grains as nearly round as I could find them, taken from an ear where the cob was so thinly covered that every grain had the fullest chance for development. It was in this first-class pig corn, and as far this I would never think of planting, excepting to test this theory. The grains were perfectly ripened, and their failure to cover the entire cob as usual undoubtedly arose from imperfect fertilization. It may be that this failure to fertilize will prove hereditary; but I am more inclined to believe that the strong plants from these large round grains will bring a greater amount and better quality of corn. The experiment is well worth trying, and if it results as I hope, the round grains from any part of the cob will be at a premium with me for planting.—*Correspondence Country Gentleman.*

THE DAIRY.

One habit is so marked as to be almost peculiar to the Jersey, and that is her disposition to carry her flow of milk for a long period.

The Eastern Dairymen's Association has voted $100 to the dairy and creamery department of the Provincial Exhibition, to be held in Guelph on the 24th of September next.

The best cheeses of Europe are cured in caves and cellars to secure even temperature. Does not this suggest that our factories have got the cart before the horse? They cure in the cock loft.

There is considerable doubt among dairymen as to the suitability of ensilage for butter cows. Two large milk condensing factories have forbidden its use among those who have contracts to supply them with milk. They claim that the product does not keep.—*Rural New Yorker.*

It is now claimed for Jersey cattle that, in addition to their value for producing butter, they are also superior for use in giving milk suitable for cheese-making. Eight pounds of milk from a Jersey cow is said to produce one pound of cheese, while ten pounds of milk is the quantity usually required from other cows.—*Farmers' (Pa.) Magazine.*

Cedar Rapids *Republican*:—"Dairying and swine-growing go well together. The butter-milk and sweet skimmed milk keep the pigs in fine growing condition. The cows and pigs can run in the same pasture. The hogs ripening in the early fall can be fed for a few weeks on the new corn, and then turned into cash before cold weather. It is poor economy to attempt to fatten hogs in the late winter or early spring. At that season one-fourth of the feed will be required to keep up heat."

Of the use of cotton-seed meal for dairy cows, a writer in the English *Agricultural Gazette* says:—"I have for many years had a large dairy and have taken first prizes for butter. My cows get three to four pounds of cotton cake all the year. The quantity and quality of the cream and butter is so sensibly increased by cake that if by chance the cows are without it two days, it is at once known in the dairy. In summer, the cake is especially valuable, as it firms the butter. Oatmeal and bran give a quantity of white milk; cotton cake gives cream."

Cotton-seed meal is undoubtedly rich in the fat-forming elements. Just what its composition is we do not know of our own knowledge, but the *Dairy* gives the fat-producing element at 16.2. Cornmeal has but about 3. If this is correct, clearly it cannot be fed in very large quantities. Two or three pounds a day, according to the above paper, is as much as should be fed, and that would be considered high feeding. It advocates mixing wheat middlings with cotton-seed meal, at the rate of four pounds of middlings to two pounds of cotton-seed meal, that amount to be fed daily.

When the milk is kept in the factory over night, and properly stirred and cooled, the sweet cream should be dipped off in the morning, before the morning milk is added, and kept by itself until the milk is all in, and then warmed to the desired degree for applying rennet. Then warm the cream to blood heat, or thereabouts, and run it through a clean strainer, rinsing it through with plenty of warm milk. Then stir it in thoroughly, and apply the rennet, stirring the milk as long as it can be safely stirred, and give it time to become still before it begins to coagulate.—*Indiana Farmer.*

J. N. Mungy, in the *Iowa Homestead*, says, in regard to tests with the milk of various breeds: "Results obtained in experiments made by intelligent farmers, and other experimenters, cannot be compared with each other unless there is some uniformity in the mode and time of setting the milk, and especially in the degree of acidity given the cream. Globules of Holstein milk are small, and do not rise as rapidly as Jersey globules. Hence allowing each to set but twelve hours would result most favourably to the Jersey. If the milk of Jersey and Holstein is allowed to set thirty-six hours, the Holstein milk will yield a greater per cent. of butter in the last twenty-four hours, in proportion to what remained in the skim milk, than will the Jersey. This will partly account for the remarkable difference in the analysis of skim milk from these different breeds."

Hollow Horn Fallacies.

Hollow horn is popularly considered as a frequent disease, and the popular remedy for it is the curious one of slitting the tail, and putting salt and pepper in it. There is no such disease as hollow horn, and if there were, it would be strange if a disease in the horn could be cured by slitting the tail and putting salt in it. This is a practice which is quite popular, but is entirely mistaken; moreover, it is a cruel operation, because it is unnecessary. Cows are sometimes affected with colds in the head, congestion of the brain or membranes of the head by reason of indigestion, bilious disorder, or other stomach diseases; and, just as in persons who are suffering from sick stomach, they have a headache, and the head is hot and cold by turns, and the veins throb. When there is a cold and inflammation of the head the same effects happen, and there may even be a collection of matter in the cavities of the head and the horns, which are always more or less hollow, but these cases are flat diseases of the horn at all. A dose of salts, a pound or 20 ounces, or a pint or a quart of linseed oil, as the case may require, with a few messes of warm bran slop, and a little good nursing, will generally restore the animal, with comfort to her and satisfaction to the owner, who often regrets to know that he has been misled into tormenting a sick animal by painful and mistaken treatment. The tail of a cow is remarkably sensitive, and no good can ever be done by slitting it and putting salt on it, and sometimes the tail is lost by it. —*N. Y. Dairy.*

LIVE STOCK.

Moss Rose, 5,114, a Jersey cow, owned by William Rolph, Markham, Ont., made 14½ pounds of butter in seven days, being fed on grass only.

The Jersey cow Mary Ann, of St. Lambert's, 9,770, has been transferred by W. Rolph, an American breeder, to Valencey E. Fuller, of Hamilton, Ont.

The Americans think they can ship their cattle to England through Canada. In this they are mistaken. The passage through Canada of cattle from a country in which the foot and mouth disease prevails would result in this country being scheduled.

Frankland, the Canadian cattle shipper, will give the prize of $60 for the best car-load of ten fat cattle at the first annual fat stock show, which is to be held here on December 14th and 15th next, instead of the butchers of Toronto, as is published in the present prize list.

Kansas farm animals are afflicted with hydrophobia in many places. The one good result from this is that many of the half-million worthless dogs in the State will be killed; but not before they have done more damage than all the dogs in the country are worth.—*American Cultivator.*

One-half the corn required to fatten hogs in the fall if fed to them during the summer will give a better result, and, of course, greatly increased profit. Most farmers miscalculate, and fail to have corn on hand when it will do the greatest amount of good.

Sheep often go a long time without drinking, especially if in a pretty good pasture, and the dews are heavy, so that they can fill up with wet grass in the morning, but when they do want to drink, water is as necessary to their health and comfort as to that of any other animals. Therefore, keep a supply of pure water in the sheep pastures as much as in any other, and if the sheep do not drink from it give them a little salt once a week. They should have salt as often as once a week under any circumstances.

Messrs. Orton, Innes, and Coy, of Seaforth, Huron county, have purchased from Messrs. Graham Bros., Claremont Pickering, the celebrated entire imported Clydesdale stallion Prince Arthur, five years old, who has so successfully competed at the various exhibitions in this Province, and also in Scotland. As a stockgetter he is second to none, and his loss to the farming community in that section will be hard to replace. The figure at which he was sold is not stated, but from his performances there can be no doubt that it was a pretty high one.

Cattle are sometimes poisoned by eating the wilted leaves of the wild cherry. The green leaves are not poisonous, but the poison seems to develop by some chemical change which takes place during the wilting. Take care, therefore, not to cut wild cherry trees and leave the branches where the cattle can get them, for, strange though it seem, they will abandon good grass to eat them. If the cattle are suspected of having eaten them, mix one pint each of hog's lard and molasses, and warm until it will run readily, pour into a long-necked bottle, raise the animal's head, and, inserting the nose of the bottle in the corner of the mouth as in to reach well back on the tongue, pour it down. The usual dose varies from a pint to a quart, according to size of animal and severity of case, but there is no danger of an overdose.

Purchases for Canada.

Mr. John Jackson, writing from Appleby, England, says:—"I met my friend Mr. James Main, from Canada, who is known as one of the most successful exhibitors of pigs in the country, who has purchased some fine specimens of Cotswold sheep and Berkshire pigs. His long experience in that line is a sufficient guarantee for the merits of the animals. I have up to the present made a purchase of 60 head of Southdowns, some of which have carried off the highest honours at the Bath, and West of England, and the Royal counties shows, and are yet to be exhibited at the Royal meeting at York. I have spent a month in the south of England among the Southdown flock, inspecting as high as 3,000 in one day. Sheep is the main dependence of the farmers here. Crops generally look well, particularly roots and barley. I expect to sail for Canada on July 26th."

Washing Sheep.

As a flock of sheep is a useful annex to many a dairy, and might be to every one, and as sheep are dairy animals, no excuse need be made for writing of this relic of barbarism—washing sheep. It is a practice that belongs to an uncivilized era, and suited to the feudal times when the shepherds were serfs, which is next to slaves, perhaps next below, rather than next above. Think of the absurdity of it! A few men that are possessed of reason go on a cool, chilly morning—having made arrangements to have the sheep penned the day before, it cannot be postponed—go deliberately into the water, cool and chilly as it is, up to their waists, to wash the dirt off from the sheeps' fleeces. For what purpose? To get one-third more cents per pound for one-half the weight of wool! In addition, they get colds, rheumatism, and fever, and this year we hear of two boys being carried into an eddy and drowned, while engaged in this amazingly foolish work. The writer washed his sheep once in this way, but never again, after six hours' work in a cool stream, and finding the fleeces of a few of the sheep which were not washed actually brought more money than as many washed fleeces.—*New York Dairy.*

Feed for Young Pigs.

A correspondent of the *Breeders' Gazette* gives his ideas on this subject as follows:—

"Ground corn, wheat bran, and shipstuff, or middlings, as the latter is sometimes called, in equal parts, make good feed for pigs at weaning time. Ground oats, when they can be had, in place of the wheat bran would be an improvement. All should be mixed, with a little salt added, then scalded with hot water and left to stand until cool enough to feed. If the conveniences for scalding or cooking cannot be had, the feed may be soaked with water for a day or more, according to the weather; that is, just long enough for it to become slightly soured. If the pigs can have skimmed milk besides it will be all the better for them. This, in abundance, with ground corn in moderation, will bring them along finely, and no better feed for them, perhaps, can be found. Corn alone would make them too fat, and would not furnish the growth-producing material needed at this time, and which is well supplied by the milk. When, however, milk cannot be had, the bran and shipstuff answer for a substitute. Oil-meal is also recommended as a good addition to the rations, so also pea-meal and cooked potatoes.

"It is is important that the pigs be fed often, that is, not less than five times a day for the first week or two, and each time so much only as they will eat up clean. When with the dam their food supplies were taken in small amounts and at short intervals, and now when being weaned they should not be allowed to become unduly hungry. A pig's stomach is not large enough to take in more good wholesome food at one time than will last him for three or four hours. If from neglect or other cause young pigs get very hungry, they are apt, when fed, to eat so fast and so greedily as to sicken and gag before they have really taken as much as they ought to have. When older they may be fed with less frequency, particularly if they have the run of a good pasture or clover lot."

The Colts.

Horses are a kind of live stock which are left largely to take care of themselves in a certain sense. We busy ourselves about our cattle, sheep, and swine. How shall we feed, what shall we do to make the calf, the lamb, and the pig more valuable? we ask time and again. But the colt comes, grows and reaches maturity, under about the same treatment that has been common for hundreds of years. The horse is valuable in proportion to the development of its muscle. A weak horse is very poor property—a strong horse is good property. Consequently the food given the colt and young horse, and in fact the mature horse, needs to be largely of the muscle-forming character. Their food does not need, and must not contain, so large a proportion of the carbonaceous elements as do those which are fed to flesh-producing animals. In the latter case a conspicuous part of the object in feeding is fat, while in the former case, we want to produce only a moderate amount of fat and a great deal of muscle. Very often the horse is fed entirely too much corn. As a portion of the horse's food, and even of the colt's, corn is good, but to feed a colt too much of this specially fat producing food is ruinous. If the dam gives sufficient milk, the colt will need nothing else for six months. But if the mare should give an insufficient quantity, it must be supplemented with something else, for we think it may be stated as a fact, whether it is is always observable or not, that a colt that is insufficiently nourished during the first six months of its life never recovers what it thus loses. Young animals, it must be remembered, cannot grow on nothing. It is their food that gives them growth, and the more food they utilize the more rapid will be their growth. If the dam does not give enough milk to satisfy the colt, the latter should be increased by giving it food which will supply the same in composition to that of the mare. We advise giving frosh milk first, under such circumstances, but skim-milk may soon be given, and that contains precisely the elements which the growing system most stands in need of. Two quarts a day, given in the morning and at night, is about the proper amount for a colt two months old. Some sweeten it a little, and it is a good plan, although but very little sugar should be added. The colt may be allowed to eat oats as soon as it will, and before it is weaned we would give it a little linseed meal with oats, and thus teach it to eat it. Linseed meal is excellent food for a colt.—*Western Rural.*

English Cart Horse Stud.

A few weeks ago we published a letter from Hon. C. I. J. Douglas on the subject of the English cart horse, which seems to have met with the cordial approval of all those who are well informed on the question of horse breeding. The following letter from M. Chadenedes, of Guelph, on French and English draught horses is a valuable contribution to the literature of the subject:—

Hon. C. I. Douglas, Toronto:

DEAR SIR,—Your letter in THE MAIL of this day seems to me so impartial and true that I have to send you an expression of my entire sympathy.

I must say that your arguments had struck me so forcibly before that I had changed my mind altogether. When I met you in England I was on my way to France with the idea of purchasing Percheron horses, in favour of which I was so thoroughly impressed that I could not think of buying anything else, but I must say that my idea of the French horse was, and is still, quite different from the American view of it.

Of course, as a Frenchman of the west, where the Percherons are bred, I ought to be considered a very disinterested judge when I say that the Percheron cannot possibly compete with the Clyde or the English Shire horse as a heavy draught, and I never thought his partisans would be so deficient in judgment as to oppose him to Scotch or English horses on the only ground where he cannot fail to be beaten. French horsemen, whose opinions are worth anything, have presented the Percheron as a capital draught horse when rolling at the rate of seven or eight miles an hour. Whoever has travelled in France will confirm my statement that the real element of the Percheron horse is when harnessed to the Paris omnibus; there he shines in all his glory, and his pluck, coming from old Arabian blood, will keep him through his dreadful work, winter and summer alike, until the stone-paved streets of Paris have completely ruined his feet. But to draw from this special attribute of the Percheron, viz., remarkable endurance on a very little fodder, that he is a desirable sire in all other respects is a very mistaken idea. Let him come here for a certain class of mares, useless for high breeding or very heavy breeding, and let him be considered what he really is, a good serviceable farm horse; but at the same time warn the farmers that when they own fine brood mares they must avoid him like the jackass. He has too many faults in his build, and his breed is not pure enough, to allow his progeny to be sold as a well-made cart horse or as a stylish brougham horse for the English market. His croup always reminds me of a pulpit, and his neck is so desperately short that when a Percheron mare is crossed with a half-bred or thoroughbred stallion there is no chance whatever for the foal to take the noble qualities of the sire. Moreover, with reference to the purity of his blood any French breeder will tell you that he is, when of large size, crossed and recrossed with Flemish blood to such an extent that he has very few of the French qualities left in him. But give me a Shirebred mare and make a reduction of her proportions, and tell me that if you could make her pass by degrees from her size to that of a Shetland pony, she will not always seem fitted for every kind of work, and although she is as strong as an engine she is so well conformed that she will look stylish enough to draw a brougham if reduced to 1,200 pounds. Well, ask Mr. Dunham to try this with any of his Percherons and mark the result.

I shall never forget a hunter which carried my 16 stones through a very ugly country three times a week, and whose dam turned out to be a very heavy Yorkshire mare with magnificent neck and shoulders, and the build of an enormous cob behind.

In Normandy our best carriage horses have no Percheron blood in them, they are of Norman blood with a great deal of English thoroughbred in them. Giving you full authority to publish these statements if the testimony of a young and inexperienced, but very sincere lover of horses seems to you worth anything.

Yours, etc.,
J. B. DE CHADENEDES.

Guelph, Ont., June 28.

ORCHARD AND GARDEN.

The dead leaves on squash vines should be carefully removed and burned. They are usually infested with eggs of the squash bug, and the first leaves that appear are of no use as soon as others form, and are then sure to wither and die.

In cultivating orchards the trees are more important than any crop that can be grown under them. If they are not, cut them down. The hills of potatoes or beans close to the trees never amount to much, and it is not worth while trying to save them at the risk of injuring the trees.

There is from nearly all parts of the country a complaint that the apple crop is a failure. It is becoming a serious question whether the farmers of some sections can longer grow apples to a profit. The answer is that they probably cannot without such attention to manuring and fighting of insect enemies as has heretofore been given only by the professional fruit culturist.—*American Cultivator.*

The *American Cultivator* says:—"When onions seem to run to 'scullions,' and the tops continue green and large, it is a very good plan to break the latter down by rolling a barrel across the rows. This partially stops the growth of the top and leaves the bulb to get the fertility of the soil. When the onions are as large as a silver dollar one can judge whether they need this treatment or not."

A correspondent of the *Country Gentleman* says he has met with uniform success in preventing the ravages of the striped cucumber beetle, *Diabrotica vittata*, upon melon and cucumber vines by dredging finely-powdered sulphur over the leaves early in the morning, while the leaves are damp. He says it does not injure the vines in any way, and the beetles are invariably driven away by the sulphur.

In small gardens, where the soil is rich enough, hills of beans may be profitably planted between the hills of corn. It is rather better to place the corn at wider intervals than usual, say four feet apart each way, and then after the early cultivation put in two hills of beans between the hills of corn. The beans will be ready to use by the time the corn is in roasting condition, if the latter has grown eight to ten inches high.

In setting out cabbages it is very important to remove all the larger leaves down to the heart. These leaves evaporate moisture faster than the transplanted roots can supply it. If left on they cause the whole plant to wilt and finally die, while if properly pruned the transplanting may be almost independent of the weather. It is well to puddle the roots, pack closely with dry or moderately moist earth, and leave a little loose soil on the surface around the stem to act as a mulch.

Farmers who have old orchards which entirely cover the ground, and which cannot be cultivated or ploughed up, can do no better than to cover the whole ground thickly with straw or musty hay. This is best done in the "odd years" when the orchard does not bear heavily. A covering of straw six or eight or even twelve inches thick will generally rot down and nearly disappear in a year under the shade of an old orchard. When ploughing is impossible this practice is probably the best expedient. Even old cornstalks are good for this purpose.

Paris green has no effect upon squash bugs. This is because the bugs—as the squash bugs, lice, etc.—have a beak or proboscis with which they puncture the epidermis of the leaf and sip the juices from its interior. In this way they avoid the poison by sticking their beaks through it. A good way to capture squash bugs is to lay pieces of boards under the vines, and the bugs, crawling under them at night, can be captured early in the morning. The bugs are usually found with their feet against the boards, pressing their backs to the earth to keep them warm.

An American exchange says the demand for cucumbers for pickling purposes is greatly on the increase. The season so far this year has not been favourable for their growth, and insects have been very injurious. Cucumbers sown any time the present month will mature, especially for pickling. In the United States a great many pickle factories have been established. One recently commenced on Long Island, N.Y., has rendered the land in that vicinity valuable. It is estimated that as much as $100 per acre can be realized by growing cucumbers for the factory.

Grape Pruning.

So much depends upon circumstances, we would say to a correspondent, that it is not safe to give directions as to the treatment of any given vineyard without perfect familiarity with the history of the vineyard. It may be stated in a general way that a tendency to wood growth and a check upon the production of fruit, and that it is necessary to stop excessive growth by pinching and pruning. But these operations must be judiciously done. Vines are sometimes butchered and pinched almost to death. As a general rule, it may be stated that the second spring after planting, the plants should be cut down to two or three eyes or joints, and the third year to four or five. But something will depend upon the variety when the proper treatment is under consideration.—*Western Rural.*

The Cabbage Pest.

For two or three years past the cabbage crop has greatly suffered from the worm, which has become a most destructive enemy of this valuable vegetable. Many attempts have been made to get rid of it by resorting to half a score of different appliances; but so dense are the leaves and bulky the head, that it is next to impossible to dislodge all the worms, concealed as many of them are, in the compact layers. The best remedy—one indeed that seems to be as effectual as, under the circumstances, it can be—is to take a half pound each of hard soap and kerosene oil, dissolve in three gallons of water, with which to thoroughly sprinkle the heads. A single application may be sufficient, but as it may not always be, a second, and perhaps even a third, may be necessary. This preparation has been tested over and over in the most careful manner, and it is regarded, though very simple, as a positive remedy.—*Farmers' Advocate.*

The Canker Worm.

At this season of the year orchards are very liable to be attacked by the canker worm. This insect is one of the most devastating of all our insect pests if not promptly destroyed. They spread slowly, however, as the female moth has no wings. She lays her eggs after climbing the tree, and, if prevented from ascending the trunk, most of the ravages may be prevented. A good plan is to tack a strip of carpet paper two or three inches wide around the tree and coat the exterior with tar. There are many devices for preventing the female moths from ascending the tree, most of which are effectual. The larvæ can be recognized by the yellow and black stripes, ten legs, and their habit of "looping" or "measuring." When they are disturbed they fall by means of a silken thread and hang suspended. If trees are devastated by the canker worm they have the appearance of having been scorched by fire. The larvæ are easily destroyed by Paris green or London purple. Put one-third pound of the poison into a barrel of water, keeping the mixture well stirred. It can be thrown over the trees by means of a syringe or force pump. One application should nearly rid the orchard of the pests.—*American Cultivator.*

It is stated as a fact that many people hear best when their eyes are closed. Think of this in church.

THE PROVINCIAL EXHIBITION.

It Promises to be a Very Successful Affair.

Mr. Henry Wade, secretary of the Provincial Exhibition Association, visited Guelph on Saturday last, and inspected the exhibition grounds and buildings. He found that the new buildings and the repairs which are being done to the old buildings are rapidly approaching completion. The local committee, headed by ex-Mayor Sleeman, he says are the right men in the right place. The grounds are beautifully situated and planted with ornamental trees and flowers; a large fountain is being put up amidst the shrubbery, where seats will be found, which will enable the visitors to rest, and at the same time view the exhibition of horses on one of the finest horse rings in the province. The facilities for unloading stock and articles for the exhibition could not be better, as the track runs at one end of the fair ground, where a platform and cattle-run are erected.

Everything promises well towards this being one of the most successful Provincial Exhibitions ever held. The accommodation in the city is much larger than could be expected, and if the hotels do not raise their prices, the credit of Guelph will be maintained. There will also be every preparation for the public to go to other large towns in the immediate neighbourhood, and private houses will do their utmost to accommodate all they can.

The prize list for 1883 appears to give universal satisfaction. Although it has been carefully revised, an error has been detected in class 7 and class 8, Suffolk and Percheron horses, two prizes for pure bred females in each class being omitted accidentally, viz.:—Section 5, Females of any age, 1st prize, $15; second, $10. Since the publishing of the prize list a special prize has been offered in class 4 and class 7, by Mr. Wm. Sadler, of Galt, for foals of 1883—in class 4, agricultural horses, a first prize of $10, and a second of $5 for foals got by his horse St. Elmo, and in class 7, Suffolks, a first prize of $10 and a second of $5 for colts got by his horse Young Hero.

FALL FAIRS.

[Secretaries of Agricultural Societies will confer a favour on THE MAIL and the readers by forwarding the dates upon which their respective fall fairs will take place.]

ONTARIO.

Name.	Place.	Date.
Industrial	Toronto	Sept. 11-29
Hay	Zurich	Sept. 20, 21
Grey, South	Durham	Sept. 25, 26
Provincial	Toronto	Sept. 26-29
Glenelg		Sept. 27, 28
Western	London	Oct. 1-5
Great Central	Hamilton	Oct. 2-6
Grey, East	Flesherton	Oct. 3, 3
Maitland	Dixon's Corners	Oct. 3, 4
Hastings, West	Belleville	Oct. 5, 6
Huron, South	Exeter	Oct. 8, 9
Tuckersmith	Seaforth	Oct. 9, 10
Southern	Brantford	Oct. 9, 11
LOWER PROVINCES.		
Dominion	St. John, N.B.	Oct. 20
NORTH-WEST.		
Cartwright		Sept. 25, 26
North Dufferin	Nelson	Sept. 26, 27
Stonewall		Sept. 27, 28
Mountain	Pilot Mound	Sept. 27, 28
Provincial	Portage la Prairie	Oct. 1-5