OTHER PEOPLES' EXPERIENCE

RAPE, WHAT IT IS, ITS USES, AND THE VALUE OF THE CROP TO CANADIAN FARMERS

(BY J. S. GRISDALE, B. AGR., AGRICULTURIST.)

Among all forage plants possible and profitable of cultivation in Canada none seems worthier of a more extensive use than rape. It is simple in culture; it makes a strong, rapid growth; it adapts itself quite readily to different soils and to various climatic conditions; it responds vigorously to fertilizer and to good cultivation; and, most important of all its good qualities, it is a palatable, wholesome and nutritious green food for all kinds of live stock on the average Canadian farm.

THE PLANT.

Rape stems and leaves resemble those of Swedish turnips or ruta-bagas, but the roots are like those of cabbage. The leaves are numerous, smooth, more or less fleshy, irregular in outline and covered with a fine bluish bloom. The plant grows to a height of from one to four feet, according to soil and season.

The variety most commonly used in Canada is the Dwarf Essex. Several other sorts, most notably dwarf Victoria and broad leaved, have been brought forward, but have not, on trial, been found to equal the dwarf Essex in yield or in power of resistance to drought or flood.

The varieties used as forage plants are biennial, but do not, generally speaking, live through the winter in Canada, unless it be in certain parts of British Columbia. Seed, therefore, is imported and is generally good. Occasionally, however, seed of the annual variety, or bird seed rape, is sold in the place of the dwarf Essex or other biennial sorts, causing considerable loss to the stockman. The seedsman from whom the rape seed is secured should, therefore ,be required to guarantee it as being that of dwarf Essex.

SUITABLE SOILS.

Rape in the farm economy may be classed with root and hoed crops. It will grow on almost any kind of arable land. It does best, however, on soils rich in plant food and full of humus or vegetable matter. It should, therefore, be sown on fields prepared as they would be for roots or corn. Sod, to give a good crop of rape, must be left to rot for some time after ploughing before sowing rape. It should be harrowed at frequent intervals and the field be in a state of perfect tilth, when seeded. New land may be most profitably used to grow this crop for a year or two immediately after being cleared. Large crops of rape are practically certain on such land, and stumps or roots interfere but slightly with the harvesting.

Black soil or muck gives good returns when put under rape and may be expected to give better returns with ape than with most other crops.

The seeding season extends from he first week in May until the end of August, subject, of course, to local climatic conditions. The crop, growing under favorable weather and soil conditions, may be fit for pasture in about five weeks. From this fact the stockman can, decide for himself how late he may venture to sow in any given district in order to ensure a sufficiently long feeding period to make it worth while. The plant will stand a quite heavy frost without suffering appreciable injury.

Rape may be sown broadcast or in rows. Where intended to be used for soiling, a thin broadcast seeding may be expected to give satisfaction. The quantity of seed required per acre when sown broadcast is about four pounds. A larger quantity of seed may be used when it is intended to cut as soon after seeding as possible; a lesser quantity, where it is intended to permit the plants to attain their full growth. The leaves and small stems are the most nutritious and palatable parts of the plant, hence the above conditions of seeding.

When cutting for soiling, care should be taken to cut not lower than four or four and a half inches from the ground. By observing this precaution, a second, and even a third, crop may be expected from the same area without any further seeding.

Where sown in rows, less than four pounds per acre may be used. The quantity is, of course, affected by the space between the rows. Anywhere from 20 to 30 inch spaces give more or less satisfaction, but 22 inch spaces are probably the most profitable. Less space than 22 inches makes horse cultivation inconvenient; greater space means a slight decrease in the yield per acre. In dry soils or droughty areas, level culture should be practised; in badly drained fields or rainy districts, it is advisable to sow on ridges.

The method of seeding in rows is, generally speaking, much to be preferred over the broadcast. The principal reasons for such preference are: (1) greater proportion of leaf to stem; (2) more rapid and vigorous growth, (3) less waste when pastured, as animals naturally walk between rows and do not, therefore, trample so many leaves or plants as when sown broadcast, and (4) permits of cultivation, which insures conservation of moisture in dry seasons, and destruction of weeds in wet times.

Rape is sometimes mixed with grain and sown in the spring. It makes a slow growth till harvest time, when after the removal of the grain, it rapidly shoots up. This is a rather uncertain method and more or less objectionable when it does succeed, on account of the amount of it harvested with the grain, and so retarding the curing of the sheaves.

Clover will, generally speaking, do better than rape under such conditions.

Rape is sometimes sown in cornfields just before the last cultivation. The results are seldom satisfactory, however, as the corn takes nearly all the available moisture and sunlight.

USES OF THE CROP.

As already indicated, rape is an exceedingly valuable food. It is especially well fitted for sheep, swine, young cattle, and steers. It has been fed to dairy cows with good results.

Breeding ewes do well on it in summer, and it constitutes a capital feed for "flushing" or putting them into good condition for breeding in the fall Lambs thrive upon it, but in their case it is possibly even more imperative than with older sheep or cattle to provide some other pasture (preferably other than clover) in addition to the rape.

It makes a very good pasture for brood sows. A little corn or barley fed in conjunction helps to balance the ration.

For fattening and growing pigs it cannot be surpassed. They sometimes need to be trained to eat it, but once taught they consume it most freely. An acre sown on good land and handled carefully may be expected to carry from 30 to 40 pigs from June 15 to October. The exact number an acre will carry depends upon the season, the soil, and the method of handling. To get the best results, the field should be divided into three or four equal parts and the pigs changed over to a fresh part each week or ten days.

Of course, greater returns in pounds of pork produced may be secured by cutting the rape and feeding it to pigs in pens, but more labor is required and so, in a measure at least, the advantage is lost.

Calves relish a small amount of rape at a very early age, and do well when fed judiciously. Young cattle thrive on it when it is fed in connection with natural grass pasture. Steers intended for stall feeding or late fall marketing cannot be better cared for than to be allowed the run of a good field of rape.

Dairy cows respond well to a rape ration, but judgment must be exercised in feeding or evil odors may find their way into the milk pail.

In feeding rape to cattle and sheep care should be taken to prevent bloating. They should never be allowed to enter a rape field when very hungry; more especially should this precaution be observed if the rape is wet from dew, rain or frost. Once accustomed to the feed, however, and having access to it at all times, little danger may be anticipated. Pigs are not affected in this way.

On account of its very juicy nature, it is practically impossible to cure rape, and when cured it is not so palatable nor so valuable a food as when green. It is not much used in making ensilage.

In sections where rather steady frost maintains (once the hard frosts come) rape may be cut and put in small piles to freeze. It should be taken to the stable the day before required for feed and allowed to thaw out completely before being fed. Repeated thawing and freezing spoil it for forage.

COMPOSITION.

In chemical composition and feeding value rape resembles clover. It is even richer than clover in flesh-forming constituents, and is exceedingly succulent. Analyses show its water-content to run from about 89 to about 94 per cent. The nutritive ratio or proportion of digestible protein (flesh-forming constituents) to digestible carbo-hydrates and fats (heat-producing constituents) is about 1 to 3.37. Such a large proportion of digestible protein accounts for the great feeding value of the plant. Then, since average, growling animals require a ration of a nutritive ration of about 1 to 5.5, it is easily seen why most animals require some other food not so rich in protein, along with rape. Timothy or a mixed grass pasture would be suitable for this purpose.

COST TO PRODUCE RAPE AT OTTAWA.

One Acre:

Ploughing in spring	$2 00
Harrowing (four times) team, three hours	75
Rolling, threequarters of an hour	20
Seed, three pounds at 8c	24
Sowing, three hours at 13 1-2c	40
Hand wheel hoeing, once, four hours	53
Cultivating, three times, single horse, three-quarters day at $2	1 50
Hoeing, once, one day	1 33
	$6 95

If the rent of land be considered and any commercial fertilizer or barnyard manure, be applied, the cost of production would of course be increased. As already indicated, however, barnyard manure may be most profitably applied to land used for this crop.

RESULTS FROM FEEDING RAPE AT OTTAWA.

Lambs and sheep have been fed with most excellent results. No exact record was kept of the amount consumed, however, as they were pastured.

Steers have been pastured here on ape and good results secured. A bunch of 22 steers made an average of 50 pounds gain, live weight, in three weeks on an area of two acres. About 30 sheep had been allowed to pasture on part of this same area for ten weeks. The sheep had had at the same time access to a limited area of natural grass pasture.

EXPERIMENTS WITH PIGS.

A great many pigs are fed annually on rape on the Experimental Farm at Ottawa. The following record is submitted to illustrate the part taken by rape in pork production. In one instance six pigs were pastured from August 14 till snow in 1900 on three-six teenths of an acre of rape.

POULTRY

HEALTHY TURKEYS REQUIRE LOTS OF EXERCISE SPACE

Birds Mope and Grow Thin if Shut Up Even in Large Run.

ABOUT DUCK FEATHERS.

(BY MRS. E. M. KIES.)

The best success I ever had in fattening turkeys for market has been by not confining them. I shut up all the other fowls if need be in yards and let the turkeys remain on the range till they come in of their own will, which they do if fed regularly night and morning with food where they can find it without fail whenever they wish for it. Other fowls cannot be fed this way, but turkeys eat little at a time, and as the insects disappear on the range, if they have a yard near their shed with a little green rye and plenty of old corn and grit and drink always ready for them they will stay near by. To shut them up is like confining an Indian. They are worried and do not thrive.

I have had fat young turkeys at Thanksgiving time that could not be beaten by any kept in small yards. But they must not be annoyed by other fowls. A hissing goose or quarrelsome cockerel or squalling guinea would do them damage. Much more a frolicsome dog. Even the older toms and hens can well be kept in other yards. Turkeys are born cowards with all their braggadocio, but if conditions are not agreeable at home they will stay away where they can be by themselves, and of course do not get food often enough to take on flesh rapidly.

I never let the turkeys stay away overnight, but drive them into a shed from the first. Then they roost there and get their early breakfast before leaving in the morning. I try to keep them tame and never scare them. A change to wheat and cracked corn will be relished, but I never feed ground feed and never soft, mouldy or sour corn. Sound corn in clean feeding troughs or boxes is essential. If the turks are well grown and have been pushed from the start, and surroundings are clean and the fowls are even in size, they will do better than have little and big together.

The best fowls I ever raised had a strain of wild blood, and were crossed with Bronze. They were hatched by turkey mothers and never shut up in storms after the weather was warm. An extra feed was given when a shower came up. They roosted by preference in trees, and Thanksgiving saw them well matured and fat. Plenty to eat was the rule. They were kept free from insects, reveled in grasshoppers, and had open sheds to stay in if they chose, but were never shut in till the night before they were sold.

Many people keep ducks without thought of saving the feathers, yet duck feathers are a regular market article. Not only should they be saved when a duck is plucked for cooking, but those who are wise also pluck the birds at certain seasons, although they are not to be plucked nearly as closely as one plucks a goose. The time is when the feathers begin to show, blowing about in the grass, and caught here and there, in the fence corners, and wherever ducks haunt.

The mode is to take a couple of handfuls from the back, two from each side beneath the wing, and two from behind; never more than this six handfuls. Pillows filled from such material are downy, soft, and delightful. Of course, one will cure the feathers before using. They should be hung out in thin cloth bags, where the wind plays freely on them, on bright days. People once had duck feather beds, as well as those of geese feathers, and they were considered fine Keep watch of the prices quoted each month. Learn by that if it is not well worth while to save these feathers.

Under prevailing prices of land and feeding cattle, the man who makes a profit in feeding must, of necessity, study the adaptability of his farm for beef production, the types of animals which are most profitable in the feed lot and the selection of economical rations.

SWINE

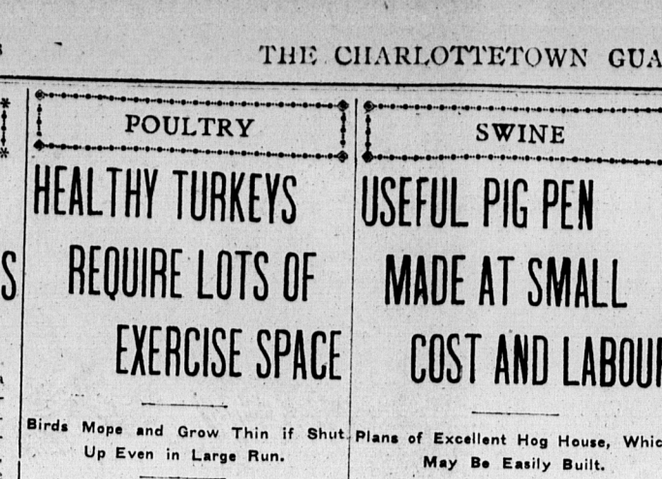
USEFUL PIG PEN MADE AT SMALL COST AND LABOUR

Plans of Excellent Hog House, Which May Be Easily Built.

DETAILS OF ARRANGEMENT.

(BY J. E. BRIDGMAN.)

It is only natural that the climate and soil which will best favor the production of any live stock are those in which the same stock is found wild, in his natural state. The hog is found where vegetation is abundant and luxuriant, where he can find shelter in winter and shade and plenty of water in the summer. While he is a heavy feeder and thrives best where he can find luxuriant pastures, roots, etc., he is not a ranger and cannot endure a great amount of travel at one time. As hogs are notably affected by extremes of cold and heat, the character of their shelter will have much to do with their successful rearing. The above being true we will naturally do best with hogs when we have arranged their home and feeding grounds, to a certain extent, at least, such as he would choose for himself in his wild state. Proper shelter is no doubt the first and most serious question, and while the perfect hog



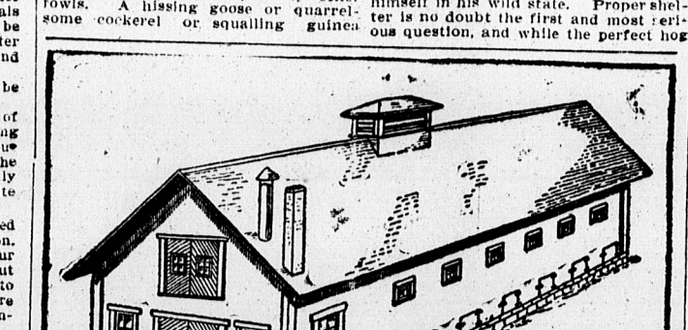
ELEVATION OF HOG HOUSE

house has not up to date been invented, great improvements have been made during the past few years.

The accompanying illustrations show a hog house that is well adapted to almost every climate. As shown by the floor plan, the house is 28x62 ft. square, and ten feet to the eaves. The lower story is seven feet, leaving ample room above for bedding and feed. The chop feed is stored in bins above and drawn trough the spouts A A A. Mixing barrels or boxes are placed close to the cooker, shown at C, and the cooked or steamed feed carried to the pens in a wheeled feeder. A root cellar is located under the feeding room for storing roots; the stairway is located under the main stair above.

The floor of the feeding room is dropped eight inches and covered with stock boards. The entire floor consists of eight inches of cement. The feed room is also used as a slaughter-house. A galvanized iron vent stack is placed over the cooker to carry away the steam, and a good brick flue is built in the corner, as shown. The house is sided with drop siding, and lined on the inside with six-inch flooring. Each pen has a small window and one door leading to the driveway, also one leading to the yards. A sliding door, shown at B, closes the driveway from the feed room. A good tight floor is laid in the loft, and a 5x8-foot open door left for passing down bedding and for a ventilator.

All hog men have their own ideas of arranging the feed and water troughs. However, a good plan is shown in the pen marked. A nest is built in the rear corner, a water trough placed in front, a feed trough along the side,and a 2x4 timber is then placed across the pen from the rear end of feed trough. This makes a feeding floor for ear corn, and the hogs will seldom foul this part of the floor. The house should set on a good foundation, and have a good tight roof, and the exterior-exposed woodwork should receive at least two coats of paint. A feed and litter carrier may be installed if the house has over eigh tpens, and will save some labor. The cellar has an outside entrance, and each gable has a large double door for hoisting feed and bedding.



FLOOR PLAN OF HOG HOUSE

Hint in Setting Out a Strawberry Bed.

The following is a suggestion made by S. H. Rittenhouse, of Ontario that is apparently worthy of more than passing thought:

"I have of late years preferred not to set the strawberry plants into the little track or furrow made by the marker, as it brought the crown of the plant too low down, and made it difficult to keep the crown from being covered while hoeing and cultivating. Therefore, I do not plant in the little furrow, but in one corner of the angle formed by the marker, and am careful to plant in the same corner of the angle all across the field, and when I am through setting the plants, they are in perfect rows both ways, just the same as if planted in the mark made by the marker."

SHEEP

CARE COUNTS IN SHEEP BREEDING MORE THAN FOOD

Shelter From Storms is Most Important, and Warmth is Necessary.

WHAT EXPERIENCE HAS TAUGHT.

(By E. M. MOORE.)

It has been my experience that care counts for more than feed. Give two flocks of sheep a scant maintenance ration and then let one of the flocks be exposed to rains, snow and cold winds of fall and winter and also furnished with but a meagre amount of salt and no water save what they get from puddles in fields, the dews or the snow bank. Then keep the other well sheltered from all storms and even showers, give it a good, warm shed or barn to run in and be fed in, and see the difference in the condition of the flocks. If the maintenance ration is based on results from the protected flock it will fall so far short on the unprotected flock that it will be impossible to carry the unprotected flock through the whole year without heavy losses. It takes heat to withstand cold and the discomfort of a wet coat in cool weather; it takes energy to make heat, it takes food to make energy, and it takes money to buy food. With all grains as high priced as they are at the present time it takes a lot of money to buy much food.

Let me put this in another way. A friend of mine put 100 western lambs on feed. When he got them nicely started he weighed up the bunch. The next day he was away from home. That day it stormed almost continuously, and that flock of lambs happened to be out in practically all the storm, and were wet to the hide. The next morning they were housed. The sixth day after the storm the lambs were weighed again. They did not weigh as much by considerable as they did the day before the storm. The owner then weighed the flock each day until the sheep had gotten back to the first weight, and it took the flock thirteen days to recover what it lost in that storm. In other words, figuring a full feed for 100 lambs at four bushels of corn, and the corn at 75 cents per bushel, that storm actually cost that man $39. This without counting the loss in vitality in the flock due to the effects of the storm and its consequent inability to assimilate food and lay on flesh as rapidly after it again reached the first weight as it could have before the storm.

STORMS WEAKEN VITALITY.

Several years ago I fitted and showed some Rambouillet sheep for another breeder. This man had been in the habit of letting his sheep take all the summer autumn rains, and took no pains to give his stock any attention save salting once every weke or so, until time to put them in the barn for winter. I have long made it a practice not to let my sheep get wet to the hide from one year's end to another. The sheep fitted for the other breeder were taken in the fall, about November 1, and carried through the winter and the following summer in the flock with my own stock, which I was also fitting for show purposes. While the other man's stock was fully as large in the fall as anything I had and looked to be in as good or better condition, it did not begin to feed and grow as well as did my own, which had not had its vitality so heavily drawn upon resisting the effects of cold storms and disagreeable weather during the early autumn. I tried this several times and found in every case that the storm-beaten stock, although it looked even superior to my own in the fall, because it had had better feed and better range than had mine, could not go through the winter and come out with the growth and condition as did my own. They were given the same chance, being run in the same flock and fed the same way all the way through, but the better care given my own, when the other fellow did not think any care was needed, preserved their vitality and made it possible for the stock to go right on assimilating heavy food and developing at a maximum rate.

If all farmers could only see this as it really is what a saving it would be to them financially and what an addition it would be to the comfort and happiness of the stock when properly cared for. For the fellow who still remains indifferent to this reasoning, I would very much like to have the power to make him take the same kind of treatment he forces his stock to take when he fails to provide protection against storms, winds and extreme cold. Do not wait for someone to force this experience upon you, but begin being humane at once, and at the same time really economical.

Draft horses are not a product of draft stables. Stick a pin there

DAIRYING

USE SILAGE FOR DAIRY FEED AND GET THE RESULTS

Silo Most Necessary Part of Modern Dairy Farm's Equipment.

THE EXPENSE QUESTION.

(BY W. A. LINKLATER.)

I have always considered the silo a necessary part of the equipment of a modern dairy farm. The silo was generally and satisfactorily used in Ontario, where I was raised, and in Iowa and Washington, where I have lived for several years. I would not attempt to make a specialty of dairy farming in this state without making use of the silo. A silo is a building in which green foddder may be stored for future feeding, the preservation of the fodder depending on the exclusion of air. This method of storing feed is not new. It has been practiced for over 50 years and has long since passed the experimental stage. Silos are to be found in successful use in all parts of Canada. We know now what materials are best suited for silo building, what the dimensions and proportions of the structure should be and what crops are best suited for storing in the silo or making silage. Consequently, if a dairy farmer wishes to build and use a silo he need not experiment, but can learn through books and bulletins the types of silo that are best and how to build them, the crops best suited for silage and how to harvest, store and feed them.

The best ration for a dairy cow is one that is succulent and in which the proportion of the elements producing tissue is large in comparison to those producing heat and energy. Green grass fulfils this requirement, but is only available for a few months in the year. Silage is the most satisfactory substitute for grass, and may be used to supplement bare pastures in summer and as a succulent basis for the winter ration. Corn silage combined with a liberal supply of alfalfa hay and a few pounds of grain furnishes a very satisfactory winter ration.

One great advantage of the silo is that the feed stored in it is always available, winter or summer, rain or shine. The silage is stored in a convenient form for feeding, so that it can be furnished to the cattle with the least expenditure of time and labor.

The corn is especially suited for curing as silage. This crop furnishes probably a greater bulk of forage than any other. It should be harvested and stored in the silo when the grain is in the dough stage. The work of harvesting is thus done at a season when the farmers are not hurried with other work, and the corn field is cleared ready to be ploughed and seeded to fall grain. A large quantity of seed can be stored in a silo. A silo 15 feet in diameter and 30 feet deep will hold approximately 100 tons of silage, or sufficient to furnish 40 pounds of silage to 25 cows for 200 days.

A USEFUL WEAPON FOR THE WAR ON RATS.

Anything which will help keep down the rodent population on the farm should be appreciated by the much rat-harassed farmer, and so we publish the above engraving.

About sixty years ago a writer in the Cornhill Magazine gave details of a trap, by means of which it was claimed that 3,000 rats were caught in a warehouse in a single night. The plan involved tolling the rats to the place and feeding them for several nights on the tops of barrels covered with course brown paper. Afterwards a cross was cut in the paper, so that the rats fell into the barrel. Reports are frequently made of large catches of rats by means of a barrel fitted with a light cover of wood, hinged on a rod so as to turn with the weight of a rat.

John Fields think that Ontario farmers might have a supply of green forage twelve months in the year. While this may be possible, it is rarely accomplished. When stock harvest their own feed there is a saving of labor, but waste of both land and feed. If the green crop is to be harvested for the cattle, the silo method will be a saving of labor over the soiling method.

The chief disadvantages of the silo are the cost of the building and the machinery for filling. A good silo may be built at a cost of anywhere from $40 to $500. Contractors are now putting up concrete silos in the north for $150 and furnishing all of their own material.

When calves are to be reared either for breeding uses or for growing into beef, some should be discarded and parted with at a comparatively early age. It would pay better to give away unpromising calves than to attempt to rear them. It is true, nevertheless, that there may be instances wherein calves do not promise well at the first, and make good development later, but these instances are the exception rather than the rule.

When calves come prematurely they seldom develop as well as when born at the proper time. It may pay to rear some pure-breds that are thus born, but it is questionable if it will pay to rear such calves if they will be only worth their meat and milk value when grown. The same may be said of calves that are small and weak at birth. While some of these may develop into good animals, the chances are against such a result.

Among the indications of promise in young calves are strength and vigor, shown almost as soon as born, good size, and at least medium flesh, but it would be going too far to say that calves lean at birth may not be possessed of good development later. Leanness at birth may have been caused by influences in the dam,

ANSWERS TO CORRESPONDENTS

NOTE.—Not more than one question from one correspondent can be considered at one time. Questions should be specific, clear and concise, and should be addressed to the Editor of the Agricultural Department of the paper. Any person requiring answer by mail must enclose stamped envelope.—Editor.

Weak Ankles— A. R. J., ... "I have a yearling colt whose ankles on all four feet seem to be so weak that his fetlock joints nearly touch the ground."

Ans.—Give the colt full freedom and he may improve with age.

Cow Ailing— M. F. "A cow has been sick since last May. The first symptoms were a swelling under the neck and milk dried up. She is poor and has diarrhea. On jaw bone is a peculiar swelling that hangs under and comes and goes; no fever nor soreness."

Ans.— Treatment is useless now. Better kill the cow.

Rheumatism— Old Subscriber: "Two-year-old mare colt had distemper this summer; after getting well became so stiff and lame in front feet she could scarcely walk. She has been ailing for eight weeks. What will help her?"

Ans.— Probably rheumatism; try soda salicylate in 2 dram doses in feed 3 times daily.

Farcy.— F. A. L.: "I have a mare with swollen legs. She also has bunches on her body. For three weeks she has coughed. She eats well but is very thin. What shall I do for her?"

Ans.— This is probably a case of farcy. Call a good veterinarian.

Inflammation of the Bowels— P. E.: "Have lost two horses. They became sick in the field, lay down and rolled till about 11 o'clock at night. They both died the next day. Have fed clean prairie hay and ear corn. What caused their death?"

Ans.— Your horses evidently died of inflamation of bowels, but we are unable to say what caused it.

Throat Disease. —Subscriber:— "Horse has had cough for a year; food and water come up through nostrils. He cannot neigh. He has been in grass all summer, but does not improve. What will help him?"

Ans.—Chronic throat disease. Try iodide of potassium in 1-2 dram doses twice daily for some weeks. Blistering throat may also be of value.

Swelling on Jaw— Subscriber:— "Two mares have swelling on jaw; one has a slight cough. There is no discharge. They are otherwise in good condition are fed slough hay and cracked corn. What caused these swellings?"

Ans.— We are unable from your description to give cause of trouble. Describe character of swelling and exact location.

Cows Ailing —Cough— W. S.:—"1. A few of my cows have dropped small weak calves. I think cows are inclined to abort. 2. I have a yearling colt that had a bad cough and discharge from the nose early this summer. He is still troubled at times. Please advise."

Ans.— 1. The healthy cows should be kept from sick ones, change feed if possible; disinfect the barn with 2 per cent. carbolic acid solution. 2. We believe the colt will outgrow his present trouble.

Young Trotting Horse— Subscriber:— "I have a fine trotter 3 years old, and would like advice as to training her. She goes half a mile in one minute on a common road cart. Do you think I should try to increase her speed or is she too young? What method should I use to make her one of the best?"

Ans.— If you have a colt which can trot 1-2 mile in 1 minute, don't take chances of spoiling her by experimenting, but put her in the hands of an expert trainer and driver.

Eye Affected— J. O. L.:— "I bought a mare whose eye appears to have been knocked out. The eye socket is swollen and sore and there is an offensive discharge. There is a lump hard lump below the ear and discharge from the nostril on the same side. Please give remedy?"

Ans.—This case needs surgical treatment. Cut away all diseased tissue and bone. Inject hydrogen peroxide into diseased cavity once daily. The disease has evidently extended to cavity in bone under the eye, this causes discharge from nose.

Lump Jaw.— J. O. W.:—"Please give a remedy for lump jaw in cattle."

Ans.— The lump may be surgically removed or the animal may be given iodide of potassium in dram doses, twice daily.

To Destroy Wild Oats— J. S.: "I have a 20-acre field of good land that is infested with wild oats. What will destroy them?"

Ans.— Plow shallow as soon after this paper is received as possible. Weed seeds will sprout and the frost will kill the young plants.

To Build Smoke House —R. L. S.:—"1. Please advise me how to build a smoke house. 2. Can I build it, of logs? 3. Must it be tight? 4. What kind of wood will be best for smoke and how long will it take to smoke any quantity of meat or fish?"

Ans.—1. Build of anything; it may be very cheap, only it should have a tight roof. 2. Yes. 3. Only fairly so. 4. Maple, oak, tamarac, any good hard wood makes satisfactory smoke. It should be smoked till meat or fish is a light brown color. It is best to build the fire outside of the smoke house and conduct smoke to it by a trench or pipe.

Mountain Ash. —Subscriber:— "How can mountain ash be grown from the seed? Can it be grown in any other way?"

Ans.— Keep the seeds dry and cool through the winter; in the spring stratify in moist sand. They will seldom start till the second season. Another method is to place seeds in a hole 10 inches deep in autumn, cover with three inches of sand and leave thus till one year from the following spring, when the seeds will readily separate from the pulp and may be planted and will start the same season. The species is grown from seed and the different varieties are obtained from budding and grafting.

To Kill Weeds— Setting Fence.— J. N.: "1. Summer fallowing to kill weeds may be done early, giving them a chance to grow, and then plow or disk the land; the second crop starts, from will kill the weeds before they mature seed. If land is weedy and worn, plow about August 15 and sow fall rye; it may be pastured fairly close till quite late in fall; in the spring sow clover seed—4 lbs. to the acre; harvest the rye, the next summer cut two crops of clover, one for seed if you like, and in the fall plow the clover down; the next season, corn, potatoes or any small grain will do well on the land. 2. Running cement around fence posts in the ground is good, but have the cement go above ground a few inches. Posts always rot next to the ground."

which may not work any serious harm to the calf.

When calves are to be reared for the dairy there are certain indications which it may be well to look for. These include an udder well formed, and with teats well apart, also one or more rudimentaries which are said by some to indicate milk force. In these and all calves, six or eight teeth well formed and well through the gums, so to speak, are also regarded as indicative of vigor.

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