and the year following, but this year as well, indicates almost criminal carelessness on the part of those responsible."

While the danger from this latter source to us in Canada is probably very slight, as California pears and plums are largely shipped to Eastern Canada and consumed there, yet as a possible avenue of infection it should not be lost sight of.

JOHN CRAIG, Horticulturist.
Central Exp. Farm, Ottawa.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Miscellaneous.

ASHES AS A FERTILIZER.

G. H. HORNING, Brant Co., Ont.:—"What value as fertilizer should be put upon pine or basswood ashes as compared with those from hardwood?"

[According to analyses of ashes from different woods made at the Ontario Agricultural College last year the ashes contain the following percentage of elements:

Variety.	Potash.	Phos. Acid.	Lime.
Maple, hard	9.31	2 03	45.24
Ash, black	25.30	1.20	49.04
Pine	11.22	4.03	20.28
Elm	35.37	.45	23.64
Beech	7.58	1.39	41.21
Apple	4.84	1.81	44.93
Basswood	9.39	5.28	33.42
Poplar	10.42	2.98	28.38

As potash is the chief fertilizing element in wood ashes, a comparison of the amount in the above varieties will indicate fairly their comparative values.]

GOITRE IN LAMBS.

SUBSCRIBER:—"I have had serious losses of lambs in my flock from being born with lumps in their throat on each side of the windpipe, varying in size from that of a hazelnut to that of a hen's egg. Some strangled at birth, others lived a few days, others survived several months. I feed my sheep well and give them good care. What is the cause and cure?"

[This trouble is known as goitre and is an enlargement of the thyroid gland. It is generally attributed to a superabundance of lime in the water drank, which is a doubtful conjecture. Treatment is of little avail and is hardly worth attempting. Prevention is the only hope and we believe is practicable. The treatment of the ewes is the secret of success. Avoid close confinement of the in-lamb ewes during winter months. Keep them out in the fields by day till late in the fall and make them take exercise in winter by feeding some part of their fodder out of doors. Feed no turnips before lambing, or very few, and these whole, thrown on the ground so that the ewes get exercise while scooping them and do not eat them too rapidly. Avoid giving free access to ice water. A small allowance of bran and oats is good. Keep salt within reach at all times. See that the ram you breed from is free from disease and cull out any ewes which have it, as it is somewhat hereditary, though not always so.]

DOGWOOD.

ROBT. MOORE, Brant Co., Ont.—"Could you inform me through the ADVOCATE as to how dogwood can be propagated for garden use? It is very scarce in this part, but still yields an abundance of flowers, which would make it an ornament to the yard. I have never been able to find any seeds or sprouts."

[The specimen received is *Cornus florida*, or flowering dogwood. It is a beautiful flowering shrub or tree which grows, under favorable conditions, 20 to 30 feet high. The flowers have four greenish-white petals, each about two inches long and depressed at the center of the end. Its bark is extremely bitter. This plant grows best in sandy, peaty soils, in a rather moist, shady situation. One fine specimen of this tree is growing near a pond not far from London, Ont. It may be readily increased by cuttings or by suckers, either of which operation should be performed in the autumn. When suckers come up from the root they can be separated from the plant along with a portion of root. Dividing down through the center of the root when two or more stems are present is an equally satisfactory method of propagation.]

PERMANENT PASTURE FOR PIGS.

S. P., Middlesex Co., Ont.:—"I have three acres of land which I want to use as a permanent pasture for pigs. It is black loam, walnut land, well drained by nature. I sowed rye last summer as soon as wheat was off, pastured it all fall and some this spring. It grew up and headed out and is plowed under. Now I want to know what to sow for permanent pasture?"

[We do not see that you can do better than sow rye and timothy early in September, and a variety of clovers in the spring. The rye would furnish pasture this fall and next spring, and could be cut early and repeatedly and allowed to remain as a mulch, or raked off and removed if too heavy for mulch. Sow six pounds timothy seed in the fall, and in early spring six pounds red clover, two pounds alsike, two pounds Dutch white clover per acre. Kentucky blue grass would probably do well on the soil described, and as it develops slowly would come in to take the place of the red clover, which will disappear after the second year. It is a very light seed, and should be sown at the rate of about a bushel an acre in the spring, and harrowed in.]

CYPRUS SPURGE.

G. B., Westminster Tp., Ont.:—"I enclose you specimen of a low, yellow-flowered plant (weed as far as I am concerned) which has got complete possession of a plot about twenty feet square on my lawn. What is it and how can I get rid of it?"

[The plants in question belong to the Euphorbia or Spurgewort family, which have the following properties: An acid, stimulant and poisonous principle, residing chiefly in the milky juice, pervades the whole order. The plant before us is known as Cyprus spurge (*Euphorbia cyparissias*). It is really a herb, growing from a few inches to a foot or more high, bearing greenish-yellow flowers in umbels like the flowers of the carrot. The leaves are narrow and grow quite close together on the smooth green stem. It has been introduced as a flower, and being tenacious of life it has stuck to its home wherever planted, and in some cases has spread from its first situation.

It is difficult to suggest a remedy that might be carried out successfully without breaking up the sod, when a summer's hoeing and working would be almost sure to destroy the last vestige. Seeing that the patch is only twenty feet square, it would seem quite possible to destroy this weed by the use of a spud or old butcher knife as fast as the plants appear above the surface. They should be cut off beneath the surface of the ground. Late this autumn grass seed could be sown which would thicken up all right next year. If matted over completely it will be necessary to dig up the plot.]

YOUNG ABBOTSBURN.

ROBT. WARWICK, Huron Co., Ont.—"Could you kindly furnish me with the facts as to who was the breeder and exhibitor of 'Young Abbotsburn,' the champion over all beef breeds at the World's Fair, Chicago, and very much oblige?"

[Young Abbotsburn 6236 10679 was calved June 20th, 1894. He was bred by J. & W. B. Watt, Salem, Ont. He was sired by Abbotsburn (Imp.) and out of Village Blossom (Imp. in dam). Young Abbotsburn was exhibited at the World's Fair by the late Col. T. S. Moberly, Richmond, Ky. His winnings were first for Shorthorn bull three years old and over, first for best Shorthorn bull any age, and sweepstakes for best bull three years and over open to all beef breeds.]

PLAN FOR HOG PEN.

H. N., Halton Co., Ont:—"I intend building a hog pen to accommodate 100 hogs. What material should I use to secure a dry, warm pen in winter? What size will be necessary?"

[It takes a pretty large pen to accommodate 100 hogs comfortably. A building 30 x 60, with feed passage 5 or 6 feet wide down the center lengthwise, and six pens 10 x 12 feet on each side, might answer the purpose if you do not think ten pigs too many for a pen of that size. Our own opinion is that six or eight is enough for such a pen. We gave our ideas on this subject in answer to a similar question in the ADVOCATE for Feb. 15th, 1897, page 86. Wooden walls, double-boarded, with felt paper between, are both warm and dry. Of course, they should be on a concrete or stone foundation, say one foot above the ground. Concrete is said to be drier and warmer than stonework for walls, and if good gravel is within reasonable distance, would probably be about as cheap, and if properly built, more durable than anything else for walls. This might be used to the height of the ceiling, say seven or eight feet, and a wooden structure above for a loft for bedding if preferred. For the ground floor concrete is, no doubt, the best material. At a rough estimate the cost of concrete walls 30 x 60 feet, 7 feet high, would be: 45 barrels Queenston cement at $1 per barrel, about 30 loads gravel, and 7 to 10 days' work. A considerable quantity of small stone can be worked into the center of the concrete wall.]

SHEEP LOSING WOOL.

R. E., Ontario Co., Ont.:—"My sheep lose their wool, the rams in February, and the ewes in April. Some are nearly naked now. What is the cause, and how can it be avoided?"

[Examine them carefully for scab. If there are white, crusty scabs on the skin on back or sides, and the sheep bite at you when these are scratched, it is scab, and should be dealt with vigorously and at once. Shear the sheep and apply some one of the prepared "dips" in good strength; apply it as warm as the sheep can bear, and break the scabs up so that the solution gets to the bottom of the disease. Repeat in a week or ten days, and again later if any remain. Disinfect the walls of pens and the fences of the yard where they have rubbed, as the germs will live for months. It may be ticks, or what is worse, small white or red lice, which cause the trouble. In this case the dip should be poured on the back and sides, or better, shear the ewes, and dip lambs and ewes a few days later. If all sheep were treated for ticks and lice at the beginning of winter by pouring the "dip," opening the wool every few inches, we are of the opinion there would be no vexation from their losing their wool in winter or spring. We strongly advise shearing all yearlings in March or early in April, and if ewes are in good condition or are to lamb late would shear them in April too. They thrive so much better relieved of their wool that we are sure it pays.]

CLAY BOTTOM FOR SILO.

F. L., Lambton Co., Ont.:—"Is it safe to build a round silo on the bare ground; will not rats be likely to damage the ensilage?"

[We know of several cases where round silos are built on the ground with only clay bottom, and have heard no complaint about rats doing damage. We would advise building a concrete or stone foundation to the level of the ground for the structure to stand on, and no doubt a concrete bottom would be safer as far as the rats are concerned, but we think it is not really necessary in the case of a stave silo at least.]

THE ESTABLISHMENT OF A CHEESE FACTORY.

JOHN J. WATSON, Renfrew Co., Ont.:—"The farmers in this vicinity are anxious to start a cheese factory. How should the undertaking be gone about?"

[Prof. J. W. Robertson, Dominion Agricultural Commissioner, has issued a bulletin directing the establishment of cheese and butter factories, which has been of much service to many who desired to enter upon co-operative dairying. The bulletin points out that the basis of establishment may be (1) private enterprise, whereby some individual or firm undertakes to provide buildings and to conduct the business; (2) the foundation of joint stock companies or co-operative associations.

Under the first plan the manufacturer may charge such a rate per pound of cheese as may be agreed upon with the patrons who furnish the milk, in consideration of which the manufacturer will undertake to manufacture cheese of first-class

The Old Lords of the Prairie.

A GROUP OF NORTHWEST BUFFALOES.