

ovary to carry on the whole function of development of the ova.

In pampered, obese animals a condition of fatty degeneration of the ovaries frequently exists. Fat animals are notably infertile, and where fatty changes take place in either the ovaries or the uterine tubes the animal is permanently sterile. Except in the early stages the condition is incurable. Dieting on foods poor in starch, sugar, and fats, together with constant and properly regulated exercise, is about the only treatment likely to have any beneficial effect.

Diseases of the generative organs, such as tuberculosis, and malignant tumors or growths affecting the ovaries, are rare, but when present give rise to sterility. In the case of growths the only effective treatment is surgical removal.

Among sterile mares the majority have at some time in life been pregnant, or have been capable of procreation; the number which have been totally barren throughout life being relatively small. The cause of these cases of sterility in one-time pregnant animals is referable to the previous parturition, at which there was either partial or complete retention of the afterbirth, with or without injuries (abrasions and lacerations) of the genital organs themselves. Retention of the afterbirth is attended with much more serious consequences in mares than in other animals on account of the susceptibility of mares to "blood poisoning" and "founder." Retention of the afterbirth usually occurs in those births in which the expulsion of the young animal from the womb is unduly hurried. It may also occur in cases where birth has been unduly retarded. The semi-attached afterbirth becomes putrid owing to bacterial infection, and this gives rise to catarrhal conditions of the lining membranes of the womb and vagina. The presence of this catarrh may, in some cases, be demonstrated by the occurrence of discharges of more or less thickened fluid material from the vagina. In the majority of cases, however, owing to closure of the neck of the womb by plugs of catarrhal material the fluid is retained within the womb and no vaginal discharge may be seen. Sometimes a catarrhal condition of the membranous lining of the vagina may co-exist with catarrh of the womb, in which case the discharge is profuse. In chronic catarrh the lining membranes become considerably thickened, and permanent sterility results. Even in mild cases the presence of this catarrhal fluid, which is usually acid in reaction, is fatal to conception on account of its destroying action upon the living elements contained in the sperm of the male. If pregnancy does occur it is usually followed by early abortion. Treatment should consist of frequent flushing of the womb with weak antiseptic and alkaline solutions to destroy the bacteria or germs and to correct the acidity.

Occlusion of the opening at the neck of the womb, which may be present in catarrh of the womb, or may occur as a separate condition, acts as a mechanical barrier to the passage of semen towards the ovum, and fertilization cannot take place. Under normal circumstances when season is present in a female animal there is sufficient dilatation of the os to allow the semen to pass along into the womb and meet with and fertilize the ovum elaborated at this time. Very often occlusion is brought about by injuries, such as tearing and abrasions, received at the time of a previous parturition, when, on the healing of these wounds taking place, there is a formation of thickened tissue around the os which obliterates the opening communicating between the vagina and womb. Some of these injuries are caused by the straining efforts of the mother in expelling the young animal at birth, while others are produced by the injurious use of ropes, hooks, knives, and other instruments by persons in attendance upon the mother at the time of parturition. In simple occlusion of the os, unaccompanied by catarrh of the womb or vagina, the treatment adopted should be in the direction of dilating the passage. This can usually be accomplished by passing the hand, previously well oiled, into the vagina and directing it forward until the fingers come in contact with the neck of the womb. By gentle pressure with one finger over the centre of the os, at the same time giving the hand a rotary motion, an opening can be made which can be further dilated by insertion of other fingers until it is large enough to allow the whole hand to pass through into the womb. Perfect cleanliness is necessary in order to insure success. The vagina should be flushed out with weak antiseptic solutions both prior and subsequent to dilation. The hands of the operator should be well washed and disinfected, and the nails trimmed in order to prevent injury to the womb. The use of instruments in order to bring about dilation, in the majority of cases, is quite unnecessary, and, unless used with extreme caution, may bring about fatal results. Their use should not be undertaken by any one other than a qualified veterinarian. In cases of occlusion of the os, the use of the inseminator is of considerable value in bringing about pregnancy.

Abortion, either contagious or non-contagious, may cause sterility, as retention of the afterbirth often accompanies it.

Standard for Advanced Registry of Shorthorns.

The following standards of milk and butter-fat production produced under official supervision entitling Shorthorn heifers and cows of various ages to admission into the newly established Record of Performance, have been adopted by the Dominion Shorthorn Breeders' Association and accepted by the Dominion Department of Agriculture.

Bulls—Admitted after having four daughters in the Record of Performance, each from a different dam.

Cows—Admitted after fulfilling the following requirements of production and breeding as supervised by the Live Stock Branch of the Department of Agriculture.

All cows admitted must equal or exceed both the records specified below:

	Lbs. Milk.	Lbs. Butter	Fat.
Two-year-old class	4,000	140	
Three-year-old class	4,500	157.5	
Four-year-old class	5,000	175	
Mature class	5,500	192.5	

The per cent of butter-fat shall be determined by Babcock test.

Year's milk record—If the test be commenced the day the animal is two years old, or previous to that day, she must produce within 365 consecutive days from the date, 4,000 pounds of milk. For each day the animal is over two years old at the beginning of her milk test, the amount of milk she will be required to produce in the year will be determined by adding 1.37 pounds for each such day to the 4,000 pounds required when in the two-year-old class. This ratio is applicable until the animal is five years old, when the required amount will have reached 5,500 pounds, which will be the minimum amount of milk required of all cows five years old and over.

Year's butter-fat record—If the test be commenced the day the animal is two years old, or previous to that day, she must produce within 365 consecutive days from that date, 140 pounds of butter-fat. For each day the animal is over two years old at the beginning of her year's test, the amount of butter-fat she will be required to produce in one year will be determined by adding .048 of a pound for each day to the 140 pounds required when in the two-year-old class. This ratio is applicable until the animal is five years old, when the required amount will have reached 192.5 pounds, which will be the minimum amount of butter-fat required of all cows five years old and over.

Every cow accepted for registration of performance must drop a calf within fifteen months after the commencement of the test. In the four-year-old class and the mature class, no cow will be accepted for registration if the beginning of her previous lactation period was more than fifteen months before the commencement of the test.

All applications for the test must be mailed to W. G. Pettit, Freeman, Ont., Secretary of the Dominion Shorthorn Breeders' Association.

THE FARM.

Lambton Corn Growers Organize.

In response to an invitation from W. H. Porter, the District Agricultural Representative for Lambton Co., Ont., an enthusiastic number of Lambton County Corn Growers met in convention at Oil Springs on Saturday early in May, Mr. Anderson, Warden of the County Council, presiding.

Addresses by John Hunter, Wyoming; R. L. Moorehouse, Cairo; B. W. Fansher, Florence; Alex. Wark, Wanstead; S. C. Smale, Oakdale; brought out many important points. In 1911 there were over 23,000 acres under corn, producing an average of 76 bushels per acre. The growers present agreed that 100 bushels per acre was not worthy of the County. Could the crop be increased even to 100 bushels per acre it would mean an increase of over 550,000 bushels of corn per year. Seed corn produced in Lambton County will mature from one week to ten days earlier than corn imported from Essex, Kent or United States. It is not only better for home use, but superior as well for the counties which lie to the east and north of Lambton.

Mr. Porter explained the object of the Association, and suggested how good seed might be disseminated over the country through the instrumentality of corn shows, schools, farmers clubs, corn clubs and experimental plots. Chas. Fleck moved that a Corn Growers' Association be organized, whose object it shall be to enhance the quantity and quality of corn grown in

Lambton County. A constitution and code of by-laws were at once agreed upon, and an Executive appointed, comprising, as President, Chas. Fleck, Corunna; 1st. Vice-President, R. L. Moorehouse, Cairo; 2nd. Vice-President, S. C. Smale, Oakdale; Treasurer, John Hunter, Wyoming; Secretary, W. H. Porter, Petrolia.

Many growers not able to be present communicated their interest in the move and desire to become members. All were emphatic of the importance of a high standard for the seed corn produced by the Association. If interest and enthusiasm be any criterion for judgement, success is assured to the Association, and much good will eventually accrue to the County of Lambton through this organization.

Wiring Rafters to Plate.

Editor "The Farmer's Advocate":

In going through the country last week, I was amazed at the extent of havoc done by the storm on Good Friday. Few steadings but are injured, by loss of chimneys, fences or something else, ranging from twenty dollars to hundreds, and in a few cases, to thousands of dollars. Excepting the injury to the crop by the excessive rains of last summer, nothing in our annals has ever caused such a loss. Barns and houses unroofed, windmills blown down, are to be seen everywhere. Some barns are blown down entirely, others, just as bad, but having two or three bents left standing, and of no more use than the parts blown down. Some roofs of houses and barns had the shingles blown almost entirely off, and the wet weather following, destroyed a great quantity of feed.

Shingles are now coming in in fair quantity, but for two weeks almost nothing could be done to patch up, for lack of lumber, shingles and nails.

In looking over many of the wrecks it is plainly seen that some very bad work had been done by mechanics. Shingles imperfectly nailed were most visible. Too many workmen boast of the amount of roof they can shingle in a day; and, after looking over the roof, and seeing the shingles,—for they are now tell-tales of the integrity of the builder,—I have come to the conclusion that it is almost impossible to get an honest workman. This may sound too harsh, but contractors have run their estimates so close, by counting so much on slighting work or putting in poor material, that a thoroughly honest workman need not tender, for he knows he could not do the work at the price and have anything left.

Bricklaying as well as carpenter work is badly done. Chimneys with poor mortar, where the wind has blown it out from between the bricks, and no bond of brick and mortar to keep them from falling.

There was no doubt that the wind was terrific. Only a small percentage of the damage actually done was due alone to the wind. The nailing of the roofs gave way first. The nails from the rafters to the plate, in some cases, pulled out and there was nothing left to hold. Some roofs were saved before being blown off, after lifting a foot or two off the plate, by the owner tying the roof down with wire or some other contrivance at hand.

I am giving you a simple way of tying the rafters to the plate, which may be of benefit to some of your numerous readers.

A terrific storm about twenty years ago had got the lower end of the rafters flopping up and down of a barn 50x100, and with neighbors' help I saved it by wiring. I twisted a double piece of wire about eighteen inches in length, making one piece about nine inches, and nailed one end to the rafter and the other to the plate, and the roof has never moved since. This device is easily made, will not work loose, and should be on every barn.

Bruce Co., Ont.

WM. WELSH.

No Rodded Buildings Burned.

In the article "Lightning and Lightning Rods" on page 765 of "The Farmer's Advocate" of April 24th, the omission of a word converted a negative into a positive assertion. Near the end of the second paragraph was the sentence "They had nineteen buildings burned, of which one was rod-ded." It should have read "of which not one was rod-ded."

Six field agents for agricultural education have been appointed for 1913, their work being to visit, inspect, and report upon the schools undertaking to give systematic instruction in agriculture, and thus qualify for special grants. The Province is divided for this purpose into districts of several counties each, and the men engaged are: R. H. Abraham, W. J. Austin, A. M. McDermott, R. A. Finn, E. L. Small and J. E. McLarty.