

"An animal should not be bred for from two to three months after abortion, and not even then if the discharge from the genital organs has not ceased."

"In case the afterbirth is retained it should be removed by a qualified individual who exercises care and understands the work, rather than by unskilled hands. If not removed, the uterus should be irrigated with a gallon or two of some good, warm disinfectant twice a day. This prevents the accumulation and absorption of the poisons emitted and also helps the membranes to come away. It often occurs that forcible and clumsy as well as unsanitary manipulations are practiced on animals with a retained afterbirth. This work requires great skill and sanitary precautions, which only qualified and experienced veterinarians can properly give; otherwise, the living membranes of the uterus are torn or injured, thus allowing a point of entry for germs which are responsible for grave infection (metritis or pyometra) and for blood poison."

"The *Bacillus abortus equi* is destroyed with a 1 per cent. solution of potassium permanganate in one minute; a 1 per cent. solution of carbolic acid also destroys it in the same length of time. A saturated solution of boric acid destroys this germ in three hours. Whenever water is used for irrigating the genital organs it should first be boiled, the chemicals added, and then cooled to about body temperature before injection."

Treatment of the Bull.

"Some investigators claim that the male is not as often responsible for transmitting this disease as is commonly supposed. However, to make sure, it is safer to treat him with some of the same kind of material used in cleaning the female. It is only reasonable to suppose if a male is bred to an aborting female, especially where such animal is still discharging virulent material, that he is very apt to become contaminated and transmit the infection to the next animals he is bred to. If the bull himself is infected the infection of the cow is sure to follow. In the case of the bull it is well to first clip off the long hair from the opening of the sheath and then inject some of the solution into the sheath, or use one-fourth to one-half per cent. of Lugol's solution before and after service. (Give the cow a vaginal douche of same solution one or two hours before service.) This can be accomplished with the same kind of apparatus described for the female, inserting the rubber tube into the opening of the sheath and holding the end of the sheath so the liquid cannot flow out while filling it. When it is full rub the hand up and down outside the sheath so as to thoroughly disinfect all parts of the sheath and penis."

"A regular container instead of the funnel can be secured. This container may have a faucet near the bottom to which the rubber tubing is fitted. This is suspended from the ceiling of the bull stall and can be conveniently manipulated, especially after the animal has been treated a few times. It should precede and follow every service. This same apparatus can be used in the stables suspended from the litter carrier or a wire behind the females and facilitate the work where a number are to be treated. One should never use too strong or irritating disinfectants as more harm can be done in this way than already exists. It may be better to only use warm water for the irrigation of the uterus."

Medicinal Treatment.

"Many different medicinal agents have been recommended, and some have been heralded as specifics for contagious abortion. These results if obtained are more often due to errors of diagnosis or to the nature of the disease than the drug used for seemingly overcoming this trouble. Among the things most commonly used are carbolic acid, methylene blue and different bacterines and serums, besides the patent remedies advertised in many farm papers. At the present time it may be said with safety that no reliable specific for abortion is known."

"Standard antiseptics are much cheaper and more reliable than any or all proprietary remedies. Undoubtedly there will be a time when a vaccine is perfected which will protect animals against this disease."

"Those having contagious abortion among their animals must use their best efforts to overcome it. They will have to be 'on the job' and stay with it in order to be successful."

Cleaning Up the Stables and Premises.

"Where abortion occurs in barns or stables, it is necessary to clean thoroughly such stables, first by removing all the litter to a place where the animals cannot have access, then scrubbing the walls, floors, mangers, partitions, and all things contaminated, with a good antiseptic, or with boiling water to kill all infection. The ceiling should be brushed and freed from all dust and cobwebs and a spray of some good disinfectant such as lime and carbolic acid, applied to the ceiling and walls daily for a short time. In addition to these precautions plenty of sunlight and fresh air should be supplied. The shoes, boots, clothing, and the hands of the attendants should be disinfected with a three or four per cent. solution of carbolic acid or creolin."

"The best means for applying the disinfectants on the premises is by means of a good spray pump (such as orchardists use for spraying trees). This drives the disinfectant into all the cracks and corners. The yards can also be sprayed with some of the same disinfectant to good advantage."

"Advantage should be taken of nature's best disinfectant—sunlight. An ample number of windows should be provided in barns or stables to allow the sunlight and fresh air to enter. Muddy, undrained yards, accumulations of manure and litter, and unsanitary surroundings in general make it almost impossible to control this or any other contagious disease."

A Great Shorthorn Sale.

The third annual sale held by Messrs. Watt and Gardhouse, on Tuesday, May 21, will long be remembered by breeders of high-quality cattle. It was a red letter day in Canadian Shorthorn history. While the average price received has been exceeded, it is doubtful if as elite a lot of stock were ever before led into a Canadian sale ring. The sale was held in the Winter Fair building, Guelph, where ample accommodation was afforded the hundreds of people who were in attendance. There was a seat for everybody and all could see the animals in the ring. The offering was of choice breeding and was in the pink of condition. There were four imported cows with calves at foot which brought a total of \$4,525. All but one of these cows went to the States. They were large, deep, thick-bodied individuals of excellent quality, and, considering the breeding of both dams and calves, the purchasers secured bargains. The highest price was realized on Canadian-bred females. Orange Princess 2nd, an eight-year-old cow with heifer calf at foot topped the sale at \$2,275 and went to the bid of Ostreicher Bros. of Crediton. She is a beautiful type of Shorthorn, sired by "Village Duke" and out of "Orange Princess". Her roan calf is a show animal by "Right Sort" and she is bred again to "Lancaster Lord". Lady Madge 5th, a six-year-old cow, with a bull calf at foot was a good buy at \$1,625. The calf was sired by "Gainford Marquis" that show bull that has left a large number of show animals that have been a credit to the Shorthorn breed. The purchaser of this cow was Geo. Fletcher of Erin. "Lad's Missie", a seven-year-old cow and her eight-month-old bull calf were a bargain at \$2,000. This is a particularly large-framed, smooth, high-quality cow, sired by "Good Lad". J. J. McNiff made a good buy when he secured "Polly Lind", a two-year-old heifer of the English Lady family, for \$1,150. She is well advanced in calf to "Gainford Matchless"; not only that, she has the type and individuality of a show animal. One of the choice things in the sale was "Thelma 3rd", a three-year-old heifer in calf to "Gainford Supreme". This heifer is by "Gainford Marquis" and her quality is indicated by the fact that she was a winner at all the big shows where she has been exhibited.

There were only three bulls catalogued and they sold well. "Gainford Mark", a January calf by "Gainford Marquis" went to the \$1,725 bid of A. Armstrong of Fergus. This calf is a full brother to "Gainford Matchless" which was sold at the Messrs. Watt-Gardhouse sale last year, and that was the undefeated calf at the leading Canadian shows in 1917. Great things are expected of both these calves. The value of a great sire was plainly shown at this sale. Breeders recognize the high quality of "Gainford Marquis" and his get, consequently were ready to pay the price for his progeny. Many of the young things were by this bull and a number of the mature females were again in calf to him.

American breeders secured a number of choice individuals but the highest priced and best animals remained in Ontario. Canadian breeders are awake to the folly of permitting the good things to leave the country, considering they are worth as much to them as to anyone else. This policy is going to greatly strengthen our live stock industry. A total of twenty-three head went across the line for a total of \$18,125. The thirty-six lots remaining in Canada brought \$29,825 or an average of \$828.50. The average for the entire sale was \$812.75. Fifteen, 1917 heifers made an average of \$575. The sale was well managed and the fifty-nine head were sold in about three hours by auctioneers. Col. Carey M. Jones, Chicago; Capt. T. E. Robson, London and "Scotty Milne". The following is a list of the animals sold, together with the prices and names of purchasers:

Females.

Braelangwell Dairymaid (imp.), J. J. McNiff,	
Lavarne, Minn.	\$1,325
Maria 19th (imp.), O. C. Lower, Alanta, Ind.	1,150
Monikiln Bellona (imp.), O. C. Lower.	1,225
Jilt 46th (imp.), A. G. Auld, Guelph.	825
Lady Madge 5th, Geo. Fletcher, Erin, Ont.	1,625
Orange Princess 2nd, Ostreicher Bros., Crediton, Ontario.	2,275
Lad's Missie, W. C. Sutherland, Galt, Ont.	1,000
Lad's Missie's 8 months bull calf, Miss Wilks, Galt, Ontario.	1,000
Mina Mildred 2nd, E. R. Croton, Angola, Ind.	500
Broadhooks Rose 4th, Zobel Bros., Dysart, Ia.	725
Broadhooks Jilt, A. Heaslip, Brussels, Ont.	525
Miss Lovelace 3rd, D. E. McMooney, Huron, S. D.	1,025
Nonpareil of Hillside 2nd, W. C. Sutherland.	750
Tango, G. W. McLaughlin, Oshawa, Ont.	1,050
Strawberry Lass, D. E. McMooney.	725
Bloom of Wexford, D. E. McMooney.	625
Snowdrop, C. Bolser, Kitchener, Ont.	475
Rosemary Queen, W. W. Stein, Streetsville, Ont.	475
Ruby of Oak Bluff 2nd, Carpenter & Ross, Mansfield, Io.	1,000
Grace, D. E. McMooney.	450
Glenview Blossom, G. W. McLaughlin.	1,350
Lavender Emma, O. C. Lower.	700
Violet, Geo. Bell, Deloraine, Man.	525
Queen of Struan, Robt. Miller, Stouffville.	475
Lady Castremont, H. McGee, Islington, Ont.	1,050
Elmdale Lily, H. McGee.	475
Celia Gem, Jas. Fallis, Brampton, Ont.	750
Lady Burnhead, W. A. Dryden, Brooklyn, Ont.	425
Lady Broadhooks, E. Patterson, Milton, Ont.	750
Polly Lind, J. McNiff.	1,150
Burnbrae Butterfly 4th, H. McGee.	525
Thelma 3rd, J. E. Crosby, Tulsa, Okl.	1,775
Sultan's Princess, A. Watt, Elora, Ont.	675
Roan Beauty, D. E. McMooney.	525
Gainford Belle, A. Watt.	1,525

Diamond Maid 30th, O. C. Lower.	\$ 950
Gainford Silver, Wm. Kay, Guelph, Ont.	1,000
Gainford Mina, Zobel Bros.	875
Lady Gainford, A. Watt.	675
Crimson Beauty, A. Watt.	725
Miss Strathallan, J. J. McNiff.	500
Gainford Princess, Wm. Kay.	525
Lady Gainford, J. J. McNiff.	500
Augusta of Langbank, J. J. Elliott, Guelph.	1,250
Daisy B, J. J. McNiff.	525
Carrie B, J. J. McNiff.	525
Scotch Lady, McKinnon Bros., Rockwood.	500
Roan Queen, J. J. McNiff.	350
Scotch Heather 4th, S. E. Smith, Acton.	300
Goodwood Beauty, J. C. Andrews, West Point, Ind.	600
Golden Primrose 2nd, O. C. Lower.	400
Duchess of Gloster, Hastings Bros., Guelph.	550
Crimson Fuchsia 3rd, H. McGee.	375
Lovely 20th, M. Doherty, Malton.	375
Strathallan B. 5th, Robt. Miller.	300
Lavender Gem 3rd, M. Doherty.	250
Riverview Jilt 5th, Wm. Kay.	925
Roan Claret, J. J. Merner, Seaforth.	775

Bulls.

Gainford Conqueror, Wm. Burnett, Alma.	\$1,050
Gainford Mark, A. Armstrong, Fergus.	1,725

THE FARM.

The Soldier Settlement Scheme in Western Canada.

While in Ottawa we had the opportunity of looking into the big work that has been started in the settling of returned soldiers on the land and the part this plan is playing in increased production. That the same spirit and unity of purpose that inspired our Canadian men to make the sacrifice they did in the early stages of the war is in evidence in their assisting greater production to help win the war as shown by an interview with Charles F. Roland, one of the commissioners, who with Major Ashton had just returned from the West. Mr. Roland stated that at least 10,000 additional acres will be put under cultivation by returned soldier settlers in the four Western Provinces this year. On their recent trip through the West the Commission re-instated 272 soldiers on farms. Statistics compiled by the Board and presented to the Minister of the Interior show that in Alberta 206 applicants for loans under the Act were considered; in Saskatchewan, 151; in Manitoba, 47; and in British Columbia, 3. Of this 272 were provided with total loans amounting to \$341,558. The amount loaned in each of the four Western Provinces was: Alberta, \$191,300 which was loaned to 146 applicants; in Saskatchewan, \$120,378 to 96 applicants; in Manitoba, \$27,380 to 27 applicants and in British Columbia \$2,500 to 3 applicants, all returned men who had farmed previously to their going overseas. The average loan to each soldier settler was: in Manitoba, \$1,014; in Saskatchewan, \$1,254; in Alberta, \$1,310, and in British Columbia \$833, and the total acreage of all the farms commencing operations was 53,440 acres.

Mr. Roland further stated that the land regulations under the Soldier Settlement Act allow the soldier to make entry for a homestead of 160 acres on reserved lands, providing he has not already exhausted his homestead rights, and in addition a soldier can select an adjoining quarter section of Dominion Lands as his Military right. In fact, any available Dominion Lands, no matter where located, may be applied for by a soldier settler under the Act and if the soldier does not want to enter upon free Dominion Lands he can participate in the benefits of the loan on land at present owned by him or to be acquired.

Asked what conditions there were in connection with the Government loans to returned men going on the farm, the Commissioner stated that the Board under the Act could make loans up to \$2,500 for the acquiring and improvement of land, the erection of farm buildings and for the purchase of stock, machinery and farm equipment. The conditions, as regards security, were that the amount loaned must be secured by first mortgage on land and that no loans are made unless the soldier has the ability to make, from the land, a fair living for himself and family and repay the loan, which is extended over twenty annual payments at five per cent. All loans shall be expended under the supervision of the Soldier Settlement Board. It is necessary that the inexperienced applicant for loan must first become qualified, either by taking a course at farm training stations for returned soldiers or by actual employment on farms, and that there are certain cultivation and residence duties to perform. During the recent trip to the Western Provinces, District Offices were opened at Winnipeg, Regina and Edmonton. Honorary Advisory Boards, consisting of representative men, well qualified to give helpful advice to soldier settlers, have been appointed in each district. While Dominion Lands, located in the West, are being used for settlement purposes. There is now, however, under way negotiations for provincial co-operation for settlement in other Provinces. Representatives from Prince Edward Island, New Brunswick and British Columbia have already visited Ottawa and a uniform policy will, no doubt, be worked out by which Crown Lands and unoccupied lands in the Eastern Provinces will be made available through such provincial co-operation.