

STOCK.

Abortion in Cows.

By A. S. Alexander, V. S.

TREATMENT OF THREATENED ABORTION.

—Instantly isolate cow in secluded box stall, and administer one ounce of fluid extract of black haw. If she is restless, add a wineglassful of laudanum. Repeat dose every two or three hours until restlessness and aggravated symptoms subside, then drop out the laudanum and go on with the black haw in half-ounce doses three times daily until vulva purses up and all remaining symptoms of threatened abortion disappear. When cow is again in the condition existing prior to alarming symptoms, she may be returned to the herd, and will then as a rule go through safely to her proper time of parturition. In extremely urgent cases the above-mentioned doses may be doubled, or given once an hour until the desired effect is obtained. Fluid extract of cannabis indica is as effective as laudanum if of first-class quality. It is, however, more expensive and less reliable in quality.

GENERAL PREVENTIVE MEASURES.—While we do not consider it possible to kill out the germ present in any cow fully impregnated so that the womb and Fallopian tubes have become invaded, disinfectants may afford some hope of lessening irritation and preventing further contamination or spread of germs to less affected or clean cows. The administration of pure carbolic acid in feed also has been used as a preventive, and we have for years advocated the administration of this preparation in the following way: One-half dram each other day, night and morning, to pregnant cows from first to last of pregnancy, mixing it in water and then with feed, if they will take it that way, or as a drench in water from a bottle, or sprayed upon their hay or other food, or mixed in salt when they are at grass. One dram twice daily every day for cows that have recently aborted, or that have a discharge from the vagina, constituting the disease known as leucorrhœa (whites); in the first instance the treatment to be continued for at least two weeks, and then given every other day until again bred, and in the second instance to be kept up until leucorrhœa disappears. In addition to this precautionary treatment, the cow that has once aborted and is again in calf may be kept isolated and treated with black haw and laudanum for a couple of weeks at the time when she would be liable to abort during the second pregnancy. This time is about one month later than the period at which she aborted during the previous pregnancy.

EXTERNAL PREVENTIVE MEASURES.—Scrupulous cleanliness must be maintained in the stable occupied by cows. Every day the vulva, inside of tail and thighs of each cow should be washed, sponged or sprayed with a two-per-cent solution of Zenoleum or similar tar product disinfectant. Gutters should be cleansed daily without moving manure along gutter from one cow to another, and the cleansing should be followed by the free use of a strong disinfecting solution, such as 1-50 solution of Zenoleum, or four pounds each of powdered bluestone (sulphate of copper) and fresh lime in forty gallons of water.

DISINFECTION OF BULL.—After each service the sheath and penis of bull are to be thoroughly flushed or washed with a disinfecting solution. For this purpose, use half a gallon of a 1-1000 solution of chloride of zinc, or two-per-cent. solution of tar product disinfectant. It is best introduced into sheath by means of a nozzle attached to a six-foot length of half-inch rubber hose, fitted to a spout, let into the rim at bottom of a large clean pail, to be hoisted above animal's back by means of a small rope and pulley. Insert end of nozzle in end of sheath. Hold skin tightly about end of nozzle to cause retention of fluid, which should then be allowed to flow in until sheath is distended, when nozzle may be withdrawn and the fluid allowed to gush forth. Repeat the cleansing at least twice at each time of operating.

TREATMENT FOLLOWING ABORTION.—When a cow aborts, remove her to a box stall. By means of apparatus already described, flush out womb and vagina with two gallons of milk-warm disinfecting solution (1-1000 solution of chloride of zinc preferred); remove afterbirth by hand—if it does not come away promptly, repeat irrigation of womb once daily for two weeks, then every other day for two weeks, then twice a week until time arrives when cow would have been bred had she not aborted, and at which time she should again be bred if perfectly free from discharge. —[Live-stock Report.

Well Worth \$5.00 a Year.

I would not be without the "Farmer's Advocate" for \$5.00 per year. It is well worth it to any farmer. Wishing you the very best success. Algoma, Ont. JOHN COWLEY.

Profitable Pigs.

A farm without pigs, writes Mr. W. J. Malden, in the Farmers' Gazette, Ireland, is almost certainly a farm with waste, as there is food which can be best utilized as pig food. The pig is not regarded so universally as a scavenger as it was a comparatively few years ago. This is because improvement in breeding has made it possible to produce a large weight of good quality pork from a small amount of food in a short time; also, because big, old pigs sell badly, the public taste running on small, delicately-flavored pork, instead of the coarse, fat meat of fifty years ago. The threshing machine and grain-binder have, by the cleanliness of their work, lessened the offal grain. Pigs which had the run of the yard in the days of the flail picked up quite a considerable amount of grain when muzzling in the straw. Nowadays, good machines leave less grain than will keep the sparrows, and the binder has almost rendered unnecessary the horse-rake; consequently, there is less stained grain, which used to be the pigs' particular provender, and the stubbles are but little used. In spite of the change which has come about, there is much of an offal nature that pigs will consume profitably, and which if they do not eat is wasted. We like to see a number of breeding sows and a requisite number of young stores turning to profitable account the waste of the farm.

The improvement in the breeding of pigs renders them all the more suitable running as stores, because whenever it is desired to fatten them they can be put on to concentrated food, and are rapidly made ready for pork. The ordinary pig of forty years ago took a long time to fatten, and did not fatten profitably until it was of good age. We think that a good many who advocate fast feeding from birth often overlook the difference between the pigs of their youth and those of modern production. Both rapid feeding and store running before fattening are profitable according to circumstances—just as profit may be got out of baby beef where the animal has been fattened from birth, and also from those which have been kept as stores for a couple of years and then fattened. The fact is, the nature of the food available is the main consideration. A farmer with roots rough grain, dairy waste, and other bulky food generally finds it profitable to allow his pigs to attain a fair size before being put up to fatten; while the man who has less bulky food may find it more desirable to fatten from birth.

In any case, breeding sows require food which they can get by scavenging, apart from that which is more expensive. Overfatted sows do not make the most prolific mothers, nor are their young as strong as those which are the offspring of mothers which have obtained a mixed diet in scavenging, and have attained vigor from exercise. For our own part, we like a sow to have green food, such as grass, clover, or tares. This has a tendency to purify the blood; and the food material in the forage mentioned mixes well with the starchy trough foods. Mangels and other roots are good for sows, although there are many who have a great objection to them. Succulent food is also good, but if sows receive nothing but corn or barley meal, which are starchy, much of the good which might be done by mangels or turnips is lost. The starchy roots require to be fed with flesh-forming material, not fat-making foods. Where the diet is entirely of a starchy nature, the sows have nothing to build up the frames of their young, nor to renew the loss of muscle. Where it falls to the experience of a breeder that he gets ill-luck in breeding from sows receiving roots, if he looked carefully into the matter he would see that he was trying to make his sows productive on a dietary which renders it impossible to build up a litter and carry it to farrowing.

For sows, we strongly advocate green food, especially clover or pulse crops. Who has done better with sows than when they have had an unlimited run of tares, particularly when the tares are getting ripe? The Canadian pig-keeper, on green clover or lucerne, with a small quantity of corn, runs about the nearest approach to economical pig-breeding combined with health. The roadside sow in England, finding the greater part of its living on grass, is nearly always prolific; and, with this in view, it is strange that there is not more of this carried out in enclosures.

The profitable side of pigs may be found in association with dairying; it may also be said that the profitable side of dairying is found in association with pigs. In the case of buttermaking, there is the buttermilk and separated milk to be disposed of; also, in cheesemaking there is the whey. The public do not recognize the culinary value of separated milk as they should, consequently it is fed to animals. With respect to the disposal of milk wastes to pigs, those from buttermaking or from cheesemaking are of the greatest value. Whey, owing to its fattening properties and small amount of nitrogenous matter, may be fed with more carelessness than can separated milk. While recognizing that milk is not only a valuable food, and an admirable addition to a well-constructed dietary, it cannot be too strongly urged that owing to the large amount of nitrogenous matter it contains, care is needed in arranging a dietary, especially for young pigs. It is too often forgotten that separated or skimmed milk has lost certain of its properties. Nature arranges that milk shall be an all-round food,

and the extraction of the cream makes it a one-sided one. Unless some equivalent be supplied, although a large quantity of skim milk is given, the animal does not get enough fat-forming and heat-giving substance to keep it in health. Well soaked middlings and barley meal make the safest additional foods to be given to pigs when they can first feed, and for a few weeks after if skim milk is also given.

There is little of the profitable side of pigs where the early dietary is badly arranged. Most deaths and ailments come during the fortnight before weaning and the month after. It is then that rheumatism, pneumonia, apoplexy and other ailments attack pigs. The blood becomes poisoned by an excess of nitrogenous matter. It is better to mix the skim milk with water rather than to give it in excess. Where one pig goes wrong through underfeeding many do so through overfeeding. Whey, having little nitrogenous matter, rarely gives trouble, though if fed with excessively starchy foods, such as barley meal, maize, or rice meal, and no nitrogenous food, they do not thrive as they would with the addition of bran or shorts, or even a little bean meal.

As pigs get older they require still more fat-making food. Barley meal is the standard food for the pig-feeder, and a little milk makes it practically a perfect pig food. Green food takes the place of skim milk in supplying nitrogenous matter. Consequently, tares, clover and lucerne are good additional foods for growing pigs.

During recent years the smaller breeds of pigs have fallen into disfavor, in face of the fact that small joints are in such demand. In the first place, they are so much more delicate. The principles of breeding which have been so long applied to the building up of the small breeds have tended to the weakening of the constitution, consequently they are specially liable to contract ailments when young. Beyond this they lay on too much fat in proportion to the lean, and their bacon is wasteful. So far as the indications of early maturity go, they are apparently perfect, but too much attention was given to this, and the other points being disregarded, the larger breeds have ousted them.

The larger breeds of to-day are far different to the larger breeds of a few years ago. The features of coarseness have disappeared. Instead of it being necessary for them to attain maturity before they could be fattened, they can be made up at practically any period of their life. In this way, the larger, more quickly growing breeds can be killed to meet the modern demand for small joints with delicate flavor at any age according to market demand. If left to become bacon pigs they show a good size, with fat and lean in proper proportion. There is no doubt that the larger breeds now belong distinctly to the profitable side of pig-keeping. In the endeavor to attain to early maturity, breeders must be careful how they do it. There is no doubt that, in the aim to secure the outward features of quality, great injury has been done to many strains of the Berkshire, and the reputation of the whole breed has suffered in consequence. The large breeds, such as the Large White and the Large Black, make excellent farmers' pigs, and to them, in the present condition of the trade, we look to the greatest profit. They can be run as scavenging stores before being fattened, or can be brought to early maturity.

Rape for Swine.

Prof. Carlyle, late of the Wisconsin Station, from the results of his investigations, draws the following conclusions:

1. That with pigs from four to ten months old, an acre of rape, when properly grown, has a feeding value when combined with a ration of corn and shorts, equivalent to 2,436 pounds of a mixture of these grain feeds, and a money value of \$19.49 per acre.
2. That rape is a better green feed for growing pigs than good clover pasture, the pigs fed upon the rape having made on the average 100 pounds of gain on 33.5 pounds less grain than was required by the pigs fed upon clover pasture.
3. The pigs are more thrifty, have better appetites, and make correspondingly greater gains when supplied with a rape pasture in conjunction with their grain feed than when fed on grain alone.
4. That a plot of Dwarf Essex forage rape, when planted in drills thirty inches apart, early in May, in Wisconsin, will yield three good crops of pasture forage in a favorable season.
5. That rape is the most satisfactory and cheapest green feed for swine that we have fed.
6. That every feeder of hogs should plant each spring a small field of rape, adjoining his hog yard, and provide himself with a few rods of movable fence, to properly feed the rape to brood sows and young pigs.
7. That rape should be sown for this purpose in drills thirty inches apart, to facilitate the stirring of the ground and cultivation after each successive growth has been eaten off.
8. That hogs should not be turned upon a rape pasture until the plants are at least twelve to fourteen inches high, and that they should be prevented from rooting while in the rape field.
9. That rape is not a satisfactory feed when fed alone, when it is desired to have any live weight gain made in hogs, though it has been found that they will just about maintain themselves without loss of weight on this feed alone.