Soils and Crops

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Contagious Abortion.

Every owner of cows, mares, ewes and sows should be deeply interested in the prevention of infectious or contagious abortion.

It is a well known fact that infectious abortion causes greater loss to cattle raisers and dairy farmers than any other single disease, tuberculosis not excepted.

Infectious abortion is a specific inflammation of the mucus membrane of the uterus which in pregnant animals leads to an affection of the fetal membranes and often to the premature birth of the fetus. The fetus may be either living or dead, depending upon the degree to which the germs have interfered with nutrition.

Animals which have aborted once or twice may cease to abort, but they remain diseased and are likely to infect others. Accidental causes may and sometimes do bring on miscarriage, however, every abortion in cows should be considered infectious. Contagious abortion of cattle is a specific infectious disease due to the Bact. abortus of Bang, but in mares it is caused by the Bacillus abortus equi. The germs are found in the uterus fetal membranes, and fetuses or infected mares. This disease has not yet become very common in ewes or sows; however, it is well to keep in mind that they are not exempt from it.

Doubtless the infection is taken up with the food or water, or through the genital organs, which may become infected by stable litter, manure or contact with infected milking or stable utensils, or using syringes, douching hose or instruments which are not always clean.

Treatment—No reliable cure is known for contagious or infectious abortion, but the use of vaccines applied by your veterinarian to herds which are badly affected will prove beneficial, and the treatment is perhaps worth what it costs. However, the use of vaccines for abortion is still in the experimental stage. Preventative measures have given the writer best results. Equip your farm with a separate stall or stable for your cows at calving time.

This maternity barn should be so constructed that it can be fumigated with formaldehyde, easily disinfected and not difficult to keep clean. Keep the cow in this barn and treat her until all vaginal discharge ceases. The aborted fetus and accompanying membranes should be burned as the germs are very numerous in these tissues. The manure and litter should be placed out of reach of your cows.

The disease has been spread by the introduction of an infected animal into a healthy herd. Keep the new cow or heifer isolated from balance of herd until after she calves.

Don't knowingly, have your cow or heifer served by a neighbor's bull, unless you are reasonably certain that he has not been serving diseased cows.

It is true that the bull is only a mechanical carrier of the infection, but to make him safe, he should be treated both before and after service, especially if he is serving infected cows. Treatment of the genital tract of aborted animals is essential, especially in cases of retained placentas; however, this is work for the veterinarian or trained dairyman. Infection with the abortion organism often leads to retained placenta and sterility. Suckling calves from infected mothers spread abortion infection, by tramping through the feed, or manure from infected cows. It is a great mistake to feed the milk from infected cows, to sows, unless it has been sterilized.

Cows which have aborted should not be sold but kept in the herd until they become "ceased aborters" unless they fail to conceive when bred. About one in five or six have latent or active infection, and infection probably through teat in adults and is situated in udder of non-pregnant, and in womb and vaginal discharge of pregnant cows, but B. abortus disappears from uterus soon after parturition. Or germs enter cow through food and attack fetus in utero through blood. Young animals may be infected by milk, or in utero, but infection does not last long. There are many healthy carriers never showing signs of disease.

Suspicious symptoms in a herd are abortions, retained afterbirth, sterility, nymphomania and mastitis in cows; while B. abortus causes in calves through milk white scours, infectious arthritis and pneumonia.

It is considered good practice to flush vagina of aborting cow until os closes and discharge ceases, the same preparation is suitable for flushing sheath of bull, before and after service; use one part Lysol, Creolin, or Liquor Cresolis Compositus, in 200 parts tepid water. Douching vagina with this preparation every 48 hours, for 30 days before cow calves may prevent white scours and pneumonia; use this same preparation twice as strong to bathe the hind parts of aborting cows. Wash and dry the calf. Sterilize stump of cord with tincture of iodine and dust with one part salicylic acid and three parts boric acid, and don't forget that absolute cleanliness of hind quarters of infected cow will very often prevent mastitis and white scours of calf. In conclusion, let me say, the fundamental principles underlying the control of contagious or infectious abortion are the same as for the eradication of other infectious diseases.

Rural Life and Activities for Women

BY MISS ABBIE DELURY, DIRECTOR, HOME-MAKERS' DEPARTMENT, UNIVERSITY OF SASKATCHEWAN.

The greatest incentive to agricultural activity on the part of the individual farmer is removed if for any reason the homemaker fails in the performance of her duties or in the creating of a proper home atmosphere. This fact is recognized by the Departments of Agriculture in the different provinces of Canada and in the United States, also more recently in England and Wales, Scotland and Belgium.

The Rural Women's Organizations originated with the women as independent organizations depending on their own efforts; their work was recognized as such a great factor in the success of rural life, that now departments of agriculture initiate this work and give it financial aid as part of the work of the State. The Soldier Settlement Board also recognized this fact by the establishment of a Home Branch.

The Rural Homemaker's Drawbacks.

The homemaker fails sometimes:

(1) Through lack of proper training and experience for her duties;

(2) In rural life, through discouragement, lack of incentive, monotony, overwork, need of change; hence acquires an unhealthy attitude of mind toward her duties;

(3) Because of a lack of homemaking instincts, misfits.

How the Women's Organizations Can Help.

The Women's Organizations with the aid of the Department of Agriculture can help all these classes as well as the homemaker who has made a greater or less success of her work, and these are in the majority in our province. They can all be helped by the department through:

(1) Literature supplied from time to time as need arises;

(2) Extension lectures and demonstrations;

(3) Correspondence with clubs and with individuals;

(4) Conferences and conventions.

They can help one another in their organization (and this is the greatest good that arises from organization) by working together for common interests and by each giving the benefit of her knowledge and experience for the others. The discouraged woman who has come to look on her work as merely drudgery acquires this state of mind through living in isolation—she cannot see her work as an important part of a great whole.

The Work of Woman's Organization in the Community.

When she finds herself working along with other women (1) to procure proper and sanitary school equipment, (2) to establish a hot and wholesome noon luncheon, (3) to have medical inspection of the schools, (4) to establish restrooms for the community, (5) to undertake the establishment of community halls for the use of their people, (6) to start or procure libraries for the public use, (7) to procure nursing help for the district, (8) to establish cottage hospitals and help to maintain them, (9) to hold fairs of different kinds, (10) to have child welfare exhibits and instruction, (11) to assist the less fortunate, (12) to co-operate with and assist other organizations in their works, and (13), best and greatest of all, to create a better and healthier community spirit and to minimize the spirit of hatred, prejudice and intolerance of different kinds that disgrace our community and national life and to further in its stead a spirit of love and open-mindedness and an atmosphere of hospitality—then her work becomes elevated and transfigured in her mind and that is all that is necessary.

Overlapping.

There are so many institutions organized for public welfare that the thought arises in the minds of many people that there must be much overlapping and therefore waste of time and material. Our department co-operates with every possible department in the province:

The Provincial Department of Health;

The Education Department in many lines;

The Agricultural Societies;

The Grain Growers;

The Red Cross;

Teachers;

Registered Nurses affiliated with the Provincial Council;

Staff of Department of Agriculture; University Staff.

The Press.

In this we have not found yet any danger of overlapping. The field is just beginning to be covered and there is more than enough for each organization to do. We believe that "all our strength lies in our union, all our danger lies in discord."

Education.

It will be sufficient to touch upon two or three of the broader aspects of education as it affects rural life:

(1) There is the necessity of technical or practical education. There may be a danger of over-emphasizing certain phases of technical education as applied to agriculture and even homemaking. We must bear in mind first, last and always that the studies of agriculture and household science are primarily intended to broaden and balance the child's sphere of knowledge and experience and to open for him a wider field in his choice of life-work. It should not be the object of such training to make farmers or mechanics or dressmakers or cooks or homemakers. If so, we are in danger of producing many of the misfits I before referred to.

There is, perhaps, a danger also in this kind of education to place an undue value on the material and economic side of life to the exclusion of what may be called the cultural or spiritual side. It would seem that our civilization has run amuck through this same error.

Undoubtedly we have to give our attention to the material side but there is grave danger of blunting the delicate sensibilities of our children by giving too much prominence to such things. Present-day education calls for more cultivation of the finer sensibilities.

Good Literature in the Home.

It has been felt at all times that our agricultural people are often placed at a disadvantage with the dwellers in cities on account of a lack of a certain kind of culture. This is not so true as it once was but is true to a certain extent. The means of much culture had always lain at their doors and has been ignored, particularly in the last two or three generations. I refer to the reading of good literature in the homes. This is a practice that has gradually been dying out. One great reason for this is, perhaps, that we have been placing the responsibility for such things on our schools and educative institutions, just as parents have gradually been unloading many more of their responsibilities on these same institutions, and therefore neglecting the true and natural source—the home. That is why homes are ceasing to be homes in the true sense of the word and are losing their hold on the youth of our time. Without home education all other forms of education must fail to a large extent because they can be, at best, only helps and extensions of the greater home education. The home is responsible for the time spent outside of school—for education and recreation during this time. There is no greater instrument for culture of heart and mind than a love of and familiarity with good literature.

Our Women's Organizations have been doing much to stimulate love of reading. Many of them have organized local libraries and put their communities in the way of getting circulating libraries. Our university gives a grant of dollar for dollar up to ten dollars spent for library books. This is a step in the right direction but the community library can never take the place of home reading and we are trying to make ourselves active in this direction. We have talked this matter over with our clubs for years, but sometimes some definite action is necessary to get a movement under way. For this reason I should recommend that a yearly grant of ten dollars be given to each club to buy works of good literature for reading in the club and to be used in the homes—a selection could be made from headquarters if thought necessary.

Community Bird Clubs.

We all realize, I believe, that the question of recreation and how time outside of school shall be spent is a bigger problem than ever it was before. The casting-off of the parent of this responsibility has given commercial interests their opportunity and they have seized it with a vengeance—so that now we are finding our people dependent on—not their homes or any inner resources which they themselves may have—but on those commercialized forms of amusement. What can be the outcome but a lowering of ideals and perversion of the best instincts. Our communities are so threatened now in this way that there is gradually growing up a feeling in our women's organizations that this is a problem that requires the co-operation of the men's organizations and there is a steady tendency towards community clubs. It is felt that we must do something better. It is with this in mind that the idea of the Community Bird Club came, and for these reasons:

(1) Bird study offers a source of personal happiness and a resource for enjoyment throughout life if begun in childhood.

(2) It fosters fine qualities of character—kindness, gentleness, sympathy, humaneness and a reverence for life as opposed to present-day tendencies toward selfishness, lack of thought for others, brutality and cruelty and a callousness toward life.

(3) It affords a healthy form of recreation for mind and body.

(4) It opens up other fields of interest and can be made a sort of anchorage around which can be attached literature, music, scientific knowledge and much else.

(5) It can afford a common meeting-ground for men, women and children.

(6) It is a vital problem in agriculture as evidenced by the efforts put forth by our government, provincial and federal. Their efforts will have to be largely unavailing if the interest and effort of the people is not forthcoming. The effort can be put upon the boys and girls. It will give them a sense of responsibility that will help to prepare them for the lives of citizens.

The Homemakers' Organization.

The Homemakers' Organization can in no way be looked upon as a subsidized organization. True, they receive a money grant from the Department of Agriculture, but, it must be pointed out, this is to help in the interests of the Department of Agriculture. More than that, the women through their organizations, every year, return to the province in the form of expenditure for certain provincial community needs, three or four times the amount of any grant received.

Unfinished Stock Depresses Markets.

The Dominion Live Stock branch market reports for the month of July are on the whole somewhat encouraging. While prices for all manner of stock in the East were lower than they were in July, 1920, they were for all, excepting calves, a little higher than in July of last year. The same is true of the market at Winnipeg. At Calgary and Edmonton there was a drop all along the line, excepting for good lambs at the former place and for select hogs at the latter. Once more the complaint is made of the sending of unfinished grass cattle to market, but the most depressing effect at Toronto was the heavy receipts of Western cattle, mostly heavy, rough, fat steers. At Winnipeg a volume of unfinished cattle was received which the report says should have been kept on the grass for another sixty days. At Calgary the uncertainty of feed prospects in some districts led to farmers sending their cattle in, and the report notes that with the run of half-fed grass cattle arriving, the market in the latter part of the month developed a decidedly weaker turn. At Edmonton the market was flooded with a lot of thin grass cattle, many in particular being from the Peace River district. The market for calves everywhere was erratic and tending slightly to a decline. Lamb prices at Toronto fell off a bit towards the end of the month owing to heavy offerings, but at Montreal they averaged from $1.18 to $1.42 per hundred over the corresponding month of last year. Hog prices were fairly steady and inclined to strength, but the Montreal report contains a warning which might well be heeded. "Hogs," it says, "are invariably scarce during July and prices keep up, and farmers, hoping to cash in on the high prices, send in their light unfinished spring hogs. These find a limited market until the supply becomes too numerous and then there is either a severe cut on light hogs, or the whole market is lowered, sometimes both. Efforts should be made to have these pigs finished before they are sent to the market."

It doesn't take a son of a prophet to tell that there's no profit in a cow that costs more to keep than her milk sells for.

It does not pay to tie yourself so close to your farm that you cannot enjoy the beauties of the surrounding landscape.

TROUBLE AT THE CROSSING-STONES

It may be bad for Fritz, but it doesn't make it better for anybody else

—Reynold's Newspaper, (London).

THE SUNDAY SCHOOL LESSON

OCTOBER 8.

The Birth of Jesus, Luke 2: 40-52. Golden Text—And Jesus advanced in wisdom and stature, and in favor with God and men, Luke 2: 52 (Rev. Ver.)

Time and Place—A.D. 9, Nazareth and Jerusalem. Jesus, at twelve years of age goes with His parents to the Holy City.

Lesson Setting—In Chapter I. we see the birth of a world Saviour and His forerunner, predicted by Gabriel as good news from heaven. In this chapter we learn of the entrance of this Saviour into human condition, finding His first cradle in the manger at Bethlehem and His home in Nazareth and His heavenly Father in the temple. We learn also His real humanity, seen in His gradual growth, physically, mentally and spiritually, in the true discharge of the duties of home, workshop, society, and church. The gateways of obedience, love, service and communion lead Him to His greater work as a World Saviour. We learn also, that the secret of His unique relationship to God is not communicated to Him by His mother or revealed by angel, but grows like a flower in His heart until it comes to full blossom in His wonderful experience in the Temple with which our lesson deals in particular.

I. Jesus Finding God in the Home, 40-42.

V. 40. **The child grew . . filled with wisdom.** After the presentation of the child Jesus in the temple and the thanksgiving of Simeon and Anna, Mary and Joseph returned to Nazareth. Luke omits the return to Bethlehem, the visit of the Magi, the flight to Egypt and the massacre at Bethlehem. The parents train the child for God as well as dedicate him to God. **Grace of God was upon Him.** Divine love as well as human love surrounds Him.

V. 41. **Parents went to Jerusalem.. . . passover.** All male Jews were required to attend the three feasts of the Passover, Pentecost and Tabernacles. Many Jews had become remiss in attendance, but Joseph went and moreover took Mary with him. They sought not the irreducible minimum of religious duty, but the maximum.

V. 42. **When He was twelve years.** Jewish religion allowed no substitute for parental training. Until five, the Jewish child was under the care of the mother. At five, under the father's care, he learned the Law. At the age of thirteen he became a son of the Law and a member in full of the Jewish Church, and attendance at the passover became his duty and privilege. All the careful training of Jesus in the home was a real preparation for His great experience in the Temple. The home was a door to the Temple.

II. Jesus Finding God in the Temple, 43-50.

V. 43. **Fulfilled the days.** The Feast lasted seven days. **The child Jesus tarried;** lad or youth rather than child. His tarrying was not due to disregard of His parents. A new spiritual experience held Him like a magnet. The parents observed the passover and departed. Jesus found the Father and lingered.

V. 44. **Went a day's journey.** The men and women traveled in separate companies. Each thought that Jesus, no longer a child, was with the other, or with friends.

V. 46. **After three days;** one day on the road, one day returning, then discovery on the third day. **In the midst of the doctors.** Three rooms in the Temple were used by teachers of the Law for instruction. Jesus had joined Himself to the company of pupils. **Hearing . . . and asking;** the attitude of an earnest seeker after truth.

V. 47. **Astonished at His understanding.** The lad had gone deeper than the Rabbi in his knowledge of the scriptures, and farther in his spiritual experience.

V. 48. **Amazed;** because their separation had caused Jesus no anxiety; because He had joined Himself to such company; because their son was the centre of interest; because He seemed so much at home. **Why hast Thou thus dealt.** Mary speaks out of the fulness of an anxious mother's heart. All this religious assertion seemed filial indifference.

V. 49. **How . . wist ye not.** A new spiritual consciousness has dawned in the soul of Jesus. All that He had done was but the result of that conciousness. The mystery of His birth has now become for Mary the mystery of His life. **About My Father's business;** or "in My Father's house." We, like Mary, cannot understand fully these words. But they clearly mean that Jesus feels the consciousness of a direct relationship to God. The hand of God is more real than the hand of Mary.

III. Jesus Finding God in the Workshop, 51, 52.

V. 51. **He went down with them.** Jesus went back to the old life, but with thoughts in His heart. On these He would ponder in the eighteen years of silence which were spent in the workshop of Joseph. He now understands His divine relationship, He has yet to learn His divine mission and this would shape itself in these quiet years. **Was subject unto them.** He recognized the claim of earthly duties and ties. He is still a son in the home. God has become more to Him, but Mary has not become less. **Kept all these sayings in her heart.** The mother heart remembers where it cannot understand. She thinks of them though she cannot think through them. **Jesus increased.** It is still the growing Saviour that we see through this window of Luke's gospel. **Wisdom.** Knowledge is the gathering of things. Wisdom is understanding them. **Stature.** There was a corresponding physical growth. The body is an important factor in the life. The body is not to be despised, but disciplined. **Favor with God.** His communion with the Father became deeper as the days passed. **And man.** In His intercourse with men all those inward qualities of His life manifested themselves. There was nothing aloof in His character.

Application.

Jesus grew in stature. It is thought by some that this means that physically He was well-favored. However that may be, the care and development of our bodies are a very important part of the fourfold ideal. Our bodies are intended to be temples of the Holy Ghost, and the shrine should be worthy of its deity. How to be physically fit is a question which should engage the attention of every boy and girl.

He also grew in wisdom, which is more than information. Youth is the time for study. Let us read the best books, and above all, the best of books—the Bible. The scriptures will make us wise unto salvation.

He grew in favor with men. There are two extreme views in regard to Christ. One would set Him up as gentle Jesus, meek and mild, one who never made an enemy. The other would set Him forth as one who was ever a fighter and surrounded always by implacable foes. The true view is that up till the time of his public ministry, He was one of the most popular of men. Only in His conflict with public evils did he incur the hostility of the rulers of the Jews. He was winsome. We can believe that he had an absolute genius for friendship.

He grew in favor with God. The great proof of this was that when Jesus came out of the Jordan in the moment of Baptism, he heard a voice out of the heavens, saying, "This is My beloved Son, in whom I am well pleased." Desirable as it may be to possess the approval of our own consciences or to secure the approbation of our fellows, there is nothing in this life to compare with the well done of God.

Horse Sense

Proper handling of the colt begins with the dam. If she is fed right and given the proper care before foaling, other things being equal, the stage is all set for a good colt. Proper feed for the mare means plenty of milk for the offspring, and a setback at this tender age can hardly be compensated later on. We start feeding the colt from the time it is a suckling. At the age of two months we start the colts on a little crushed oats and molasses, placing the feed within a creep, generally built under the shade of a tree and out of the reach of the mares. Colts are weaned in October and November on our farm. They are then from six to eight months of age, and we aim to wean a bunch of colts at one time, so they will not miss their dams so much.

After weaning, the creep is gradually closed off and the animals are fed three times a day, more feed being required to replace the milk. In another month or so, however, we cut it down to two feeds a day, and this system is continued until the colts are coming three years old, at which age we break them for work.

When the colts are a year old we separate the stallions and mares. If one is raising grade horses, the colts are castrated at this time, and then permitted to run with the mares. None of our male colts are used for breeding service until three years old, and then only lightly—say one service a day, and not over forty in the season. We examine the mares before breeding, and if they are not all right we use capsules.

In feeding our mares we use rolled oats, which we roll ourselves. Some require a little corn, the amount depending upon the condition of the individual. Roughness, all they want, consists of mixed timothy and clover hay.

A very important part of the daily schedule in handling brood mares is giving them plenty of exercise. If this is neglected often, it will mean failure, and I find the best form of exercise is light work. Daily exercise is just as essential as daily feed, for it speeds up a sluggish circulation and aids digestion. Exercise is essential for growing young stock, too, and for fitting a show herd.

When a mare is about to foal, we keep her in a clean, dry box stall. When the colt is dropped, one of us is always on hand to paint the naval immediately with iodine. We also give a hypodermic as soon as possible, and later on one or two more. The value of such a treatment is seen in the fact that we have not lost a colt from navel disease since 1913.

Your crop is only half taken care of when it is harvested. The other half is marketing.

Keep on just as long as you can—then keep on a little longer. Persistence wins.

The only motto some people seem to have is, "If something isn't wrong, 'tisn't right."

Persistently pursuing an ideal, even at snails' pace, is better than the frequent changing of ideals. This applies to farming as well as to the other activities of life.