

THE HORSE.

Preventive Treatment of Joint-Ill.

A simple treatment adopted at the Carlton Stud of Messrs. James Forshaw and Sons, as a safeguard against joint-ill will save breeders many troubles with their foals. The treatment was adopted by the late James Forshaw, and has been consistently carried out ever since. When the foal is twelve hours old an injection is given of about a pint of warm water (about the temperature of milk when freshly drawn from the cow), to which a little soap has been added. The quantity of soap required is so small that it is sufficient to rub a little on the hands and wash it off into the water to be injected by an enema or rubber ball syringe, the latter being preferred. The whole of the liquid is slowly injected into the rectum. Even if there are signs of looseness or purging after this treatment the dose must be repeated in twenty-four hours.

The reasons for the process are thus explained. Examinations of the young foal often revealed the presence of hard dung, which in many cases could not be discharged until dissolved by the soap solution. This obstruction retarded the cleansing process, and the system became poisoned. A second injection is given because even though the foal may have shown signs of looseness small, hard balls of dung have been found in the passage, and great importance is attached to thorough cleansing of the bowels. Without venturing any opinions as to the cause and cures of joint-ill, which are matters for the scientists who are engaged on research work, the fact remains that at Carlton there has not been a case of joint-ill for twenty years, and it is also important to know that the farmers in the districts surrounding the stud who have adopted the practice, have also had a remarkable immunity from this trouble.

Another simple form of preventive treatment is adopted in Messrs. H. and R. Ainscough's old-established Burscough Shire Stud, in which there are at present fifteen out of sixteen mares in foal. A few days before foaling time iodide of potassium (five grams to each meal) is mixed night and morning with the mare's food, and this quantity is given every second or third day. For three or four days after foaling the same dose is supplied daily, and then every alternate day until the foal is eight or ten days old, after which time outbreaks of joint-ill are rare. In numerous cases on farms in the district a timely dose of iodide of potassium given to the dam—the foal gets the benefit through the mother's milk—has had the desired result.—Live Stock Journal, (Eng.).

LIVE STOCK.

Contagious Abortion.

Contagious abortion is an insidious disease which is a scourge to the cattle industry. Not only does it decrease the present crop of calves but there is usually difficulty in getting a cow in calf again, and in many instances it leaves the cow sterile. A cow which aborts once may abort again, and in the meantime contaminate the bull and the entire herd. Clean cows bred to an infected sire will in all likelihood contract the disease, abort, and spread the germs to other cows which they come in contact with. There is no use in minimizing the seriousness of the disease. It lurks in the most unsuspected places. The pure-bred is as liable to infection as the grade herd. Premature birth is not the only symptom of abortion, but following in its wake is retained placenta, sterility, calf cholera, etc., all of which decrease the stockman's returns, completely upset his plans and seriously affect the live-stock industry. All stockmen should be united in stamping out the scourge. True, no man cares to placard his stable with "My herd is affected with contagious abortion!" but if the fact is concealed care should be taken not to spread the germs. No breeder should use a bull known to have been bred to a diseased cow, and likewise no man should ask a breeder to use his herd sire on a cow which he knows has aborted. A stockman cannot be blamed for not taking the neighbor's cow. There is always a risk, and the disease running through a herd means not only the loss of calves but also a decreased milk supply.

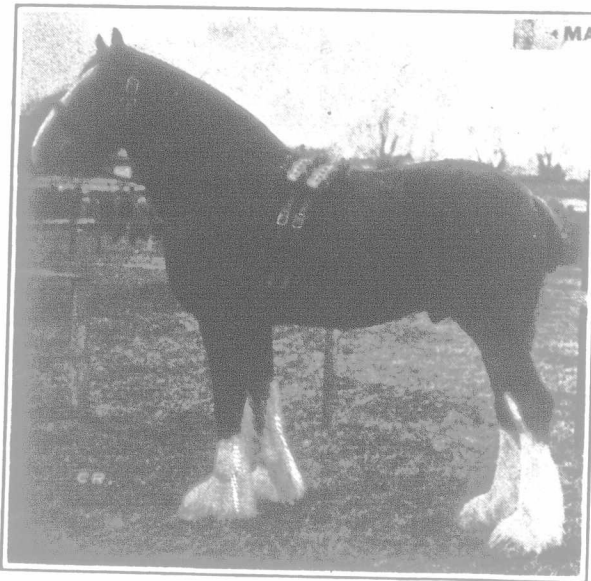
In many herds an occasional cow aborts but little is thought of it, and it is not until several cows abort that the owner's suspicions as to the real nature of the trouble are aroused.

The disease may find its way to the herd through the purchase of a cow that is infected, or from breeding to an infected bull. It is believed that the germs will be carried on stable utensils, and on the attendant's clothes, shoes, etc.; therefore, care must be taken at all times to prevent the disease making inroads into the herd. It is common for the disease to be virulent for one, two or three seasons, and then the herd will appear practically immune, the cows breed regularly and no complications are evident.

The trouble has more or less baffled stockmen and veterinarians. Various theories as to contamination and eradication of the disease have been expounded, and many forms of treatment have been advocated and tried. Apparently the germ enters the uterus before or shortly after conception, and vaginal discharges and faeces of diseased animals may contaminate the feed of all cattle coming in contact with it.

For a time the feeding of methylene blue was strongly advocated as a control method of the disease. In some herds it apparently gave results, while in others, when the drug was fed until everything was blue, there

was no appreciable effect. Feeding carbolic acid, as high as four or five teaspoonfuls per day for a period of three weeks, has evidently given results in some herds, while in others the effect was nil. It appears that immunity is established in two or three years, but there is always the danger of heifers contracting the trouble, thus keeping the disease in a virulent form for many years. Valuable as drugs may be in the control of the disease, cleanliness must not be lost sight of. Isolating cows at certain times, burning or burying foetuses and after-births, disinfecting stalls, utensils, etc., and douching the vagina of the female and the organs of the bull, are methods of treatment which all should practice. Whether the disease is in the herd or not it is well to wash out the cows after calving with a mild disinfectant, and the hind parts of the cows should be washed occasionally. Failure to observe the rules of isolation, sanitation and disinfection results in the disease becoming rampant and lingering in the herd



Odia.

First 3-year-old Clydesdale at Kilmarnock, 1919.

even after the mature cows become practically immune. The disease has been cleaned up in herds by strict adherence to the above mentioned three essentials in stamping out any contagious disease. In Bulletin 253, on "Dairy Cattle," by Messrs. Leitch, King and Sackville, the following paragraph appears, under the heading of abortion:

"The methods of handling an infected herd are isolation of aborting, or about to abort, cows from the rest of the herd, disinfection of stalls and gutters about the infected animals, and burning or burying all discharges and bedding from aborted cows. Added to these is the necessity of flushing of the vagina and washing of the exterior genitals, tail and thighs with an antiseptic solution till all discharges cease. The sheath of the bull should be cleansed with an antiseptic after each service. The best disinfectant for internal work, is a three-per-cent. solution of carbolic acid, phenol or chloral naphtholeum, or a ten-per-cent. solution of boracic acid, which has the advantage of not being so harsh as to cause severe straining, which sometimes is the result from the first-mentioned disinfectants. For external use and disinfection of stalls and gutters, etc., use a solution of carbolic acid, zenoleum, or any other like coal-tar product, double the strength mentioned

above. For use in disinfecting the stables a two-per-cent. solution of corrosive sublimate will also be found very efficient. One of the frequent results of abortion is temporary loss of the breeding powers of the female. Good feeding and frequent flushing of the vagina, to expedite the healing of the organs after abortion, is the best treatment for this condition."

Dr. Williams, of Cornell University, who has given the disease a good deal of careful study, gave the following conclusions in a bulletin which he published:

"It is recommended to use for this purpose warm, feebly disinfecting solutions, such as 0.5 per cent. bacterol, lysol, cresol compound, or any other soapy, coal-tar disinfectant. The soapy character tends better to dissolve the mucus in the vagina and cleanse the membrane more efficiently. More recently we have been using 0.25 or 0.5 per cent. Lugol's solution with apparently most excellent results. The solution should be introduced into the vagina at about the normal body temperature, 100 to 105 degrees F. The vagina should be filled, in order that it may be fully dilated, the folds of mucosa obliterated, and the solution brought into contact with every part. It is best introduced by means of a gravity apparatus in the form of a 5-gallon vessel for medium or large herds, armed with a stop-cock at the bottom, to which is attached a pure gum horse stomach tube. The vessel should then be suspended upon a manure or feed track, or upon a special wire track by means of a pulley, so that it may be easily moved along behind the row of cows. The horse stomach tube is introduced through the vulva into the vagina, and the fluid is allowed to enter the vagina by gravity.

"The bull is to be handled in the same manner. The solution should be applied before and after each service by a similar, though smaller, gravity apparatus with a pure gum horse catheter for introduction into the sheath. While the fluid is passing into the sheath, the operator should prevent its escape by pressure upon the outlet until every part is well dilated and all mucous folds obliterated, so that the solution comes into contact with every portion of the mucous membrane.

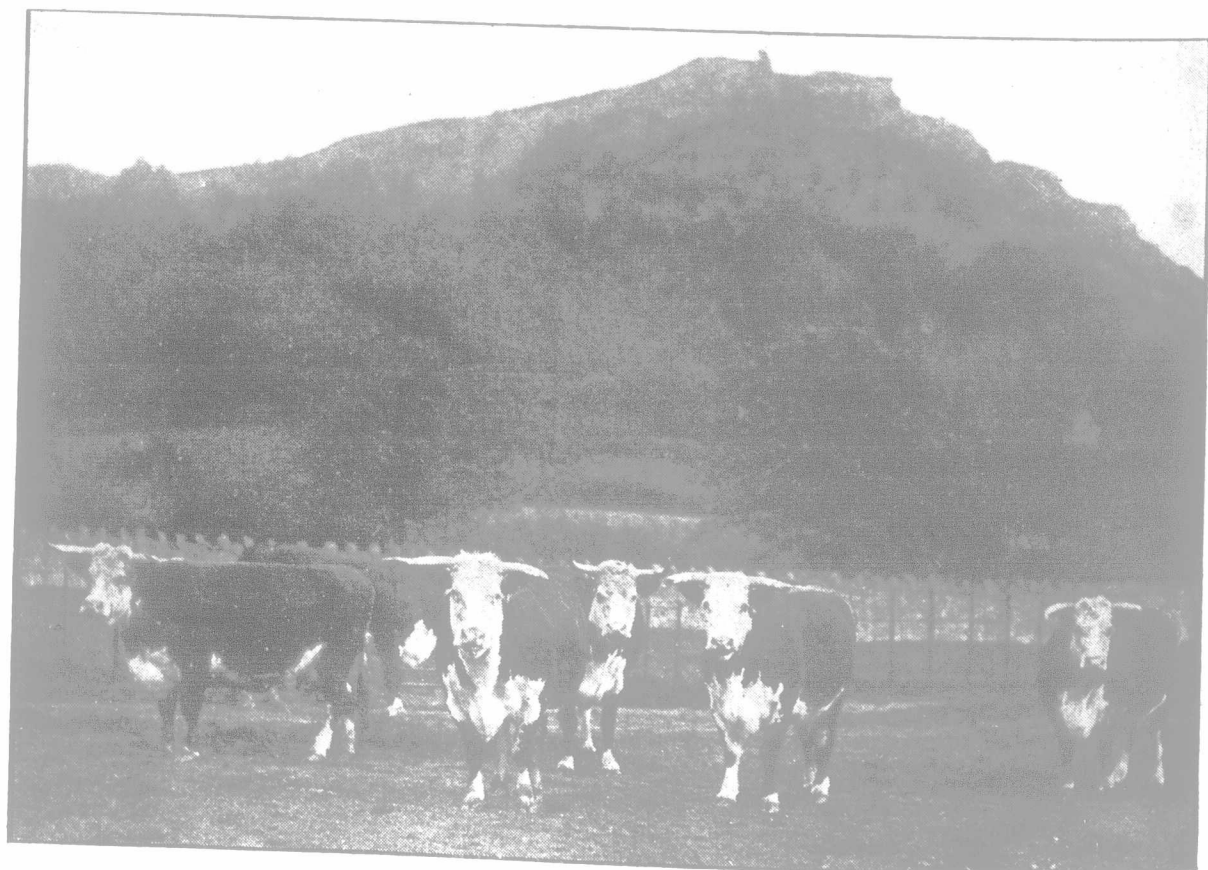
"Immediately after cows have calved or aborted if there be retained placenta or uterine discharge, the uterine cavity should be at once carefully disinfected and the disinfection repeated once or twice daily so long as the cervical canal is freely open, in order to overcome the infection present, and thereby do all possible to prevent sterility and to avoid abortion during the next pregnancy.

"It is even more important that the vagina of heifers, whether virgin or previously bred, and cows shall be systematically disinfected for a period before and after breeding, until conception is assured."

The Health of Animals Branch are experimenting with serums and vaccines in an endeavor to find an effective and practicable means of controlling contagious abortion. From the results so far obtained there is reason to believe that a serum can be obtained to counteract the trouble.

Breeders should always be on the alert regarding this disease. It is folly to wait until half the cows in the herd have aborted before applying any form of treatment. When the first symptoms appear use every precaution regarding isolation, sanitation and disinfection. One cannot be too careful. Using disinfectants before and after breeding, and also after a cow calves is a means of prevention of this trouble which causes a loss of thousands of dollars yearly.

Don't forget that sheep and cattle on pasture require salt.



Herefords Grazing in the Foot Hills.

Sugg

"Exper
all point to
for finishin
equal to ha
80 per cen
Rothwell,
Central Ex
number of
self-feeder
part, is not
ground feed
self-feeder
device is n
prevent a l
opening an
This has be
the control
let down, so
the accom
is not provi
from cloggi
stick from
of the cont
themselves l
control boa
it inward, th
meal. This
important in
of a self-fe
to Mr. Roth
efficiency o
depends on
pigs having
or grain alw
Any kind
be satisfact
to be used n
so that it c
at least on
Where it is
the pasture
and visited
needs refillin
such a typ
readily and
standard typ
as used at t
perimental h
feet long, 1
inches wide
high. The
apply only
to be used
the peak of
more than 2
bottom of th
troughs proje
sides for vat
Troughs 9 i
very satisfact
pigs, but s
need narrowe
and lying do
of a complete
be seen that
of trough sp
pen feeding.
need have no
every few ho
built at home
be used for t
shows a large
four compart
may always b
in the diagr
opens only o
prevented by
to blocks fast
Mr. Roth
secured from
Conditions we
slow, gradual
themselves af
number of s
litters could e
feeders were
to the meal th
litters can be