suck.

practice increases.

deep,

cate.'

This is very important, and it is remark-

A Fine Beef Herd.

Shorthorn of to-day must yield the palm to the

special-purpose dairy breeds, but the Shorthorn, has its place still. There is certainly a sense of

satisfaction in entering a stable and finding a

herd of big, strong, hearty, substantial cows, a

bunch of well grown, thick-fleshed, two-year-old

steers, another row of thriving yearlings, and a

pen or two of ten-months skim-milk calves that

would tip the beam somewhere around eight hun-

dred pounds. Something of this sort was wit-

messed lately by a member of the "Farmer's Ad-

vocate" staff, in the herd of Geo. Andrews, a pat-

ron of the Winchelsea Creamery in Huron Coun-

marked the owner dryly, pointing to a massive,

was not one of his best milkers, drying up too

readily after going on winter feed, but she gives

a good mess in summer, and we think Mr. An-

drews said he had sold her calf as a two-year-old

for Christmas beef for \$101. Anyway he had

sold nine head of which seven were two-year-olds

and two were yearlings for a total of \$837. We

believe he also said that the two yearlings had

brought \$85 apiece-not bad for baby-beef ! He

has some good milkers, and a very neat stable,

sending a uniformly excellent quality of cream,

according to the creameryman's word. This herd

is headed by a full brother to the Cargill-bred bull recently illustrated in the "Farmers Advo-

We might add that in this stable we saw a 7-

h. p. gasoline engine grinding grain, pulping roots

and pumping water all at the same time by means of a simple line shaft. These things are done with

a weekly consumption of one gallon of gasoline.

Breaking Unmotherly Ewes.

from time to time to make ewes own lambs.

What will work in one case sometimes fails in

another case. Of course the old reliable method

is to place the ewes in stanchions made of two

eight or ten-inch boards, so that the ewe's head

is held and that she cannot turn to smell the

lambs when they suck, according to the motherly

Instinct. Sometimes this soon brings the ewe

to the point of owning the lamb or lambs, but

often it takes several days and occasionally

Some novel means have been recommended

easily be made to weigh 1700 pounds.

"This one has about got her growth" re-

thick-fleshed Shorthorn grade, that could

This cow

THE FARMER'S ADVOCATE.

## Feeds Soaked Meal.

Editor "The Farmer's Advocate." :

able how soon after being born the lamb will take a meal. This strengthens him quickly, and usually Having recently fed a bunch of eleven pigs, I nothing further is needed. Do not increase the They got ewe's feed for a few days after lambing, when, will give you my methods of feeding. soaked shorts and what milk and buttermilk after the worst of the strain is over, she may safely be put on a maximum feed. If she shows there was at hand or water until about four signs of garget, feed carefully, give a dose of months old, when a little barley and corn were Epsom salts, bathe the udder well with warm added to finish them. All was soaked a feed ahead. Eight of these pigs, when delivered at the station, were weighed, and averaged 232 water, rub it dry, and apply a dressing composed lard and turpentine. Sometimes, where the lamb is very weak, or has been chilled, a teapounds at six months and one day old. Two I kept for breeding, which, at the same age, weighed at home 236 pounds each, and the respoonful of brandy and a rubbing beside a warm fire, will revive him. There are dozens of these maining one at seven months old, well fed, weighed little emergencies with which the shepherd must cope, but they are all more easily overcome as 292 pounds (this was the best pig, fed a month longer for home use). I for one am very much in favor of soaked feed, not too sloppy and thin. I think it saves guite a little which would other-Every breed has its strong points and its de-votes. As a "long-distance" milk producer, the wise waste.

Last summer I had three pigs which were fed on dry chop, Manitoba frozen wheat, with lots of water and drink. Two of them became crippled, and I blamed feeding dry chop, as I think it caused constipation and indigestion which in turn was responsible for the crippling. Of course I think it depends a lot upon what kind of hogs you are feeding to get the best results. I fed pure-bred Yorkshires.

Agricultural College in 1909, and which has now been conducted in each of the past four years.

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An experiment has been conducted in each of four years by using both large and small seed of heavy stooling, medium stooling, and light stooling varieties of oats, and by planting the seed of each variety in squares, one, two, three, four, six, eight and twelve inches apart. The seed was planted by hand, and with very great care. Each plot was surrounded by oats of the same kind, and planted in the same way. When the crops were ready to harvest, the surrounding plants were removed so that the crops under experiment would not be influenced by the paths surrounding the plots. After the seed had germinated and the oat plants had appeared above the ground, notes were taken in regard to the stooling of the plants every twenty-four hours. Other notes in regard to height, amount of rust, strength of straw, etc., were taken at the proper times. Each plot was harvested with great care. The actual number of heads on each plot were count-The weight of the total crop was detered. mined, and after threshing was completed, the amount of grain was subtracted from the entire crop, thus furnishing the combined weight of straw and chaff. The following table gives the average results of thirty-two tests made by planting oats at seven different distances apart

AVERAGE RESULTS FOR FOUR YEARS.

Inches between Plants	Seed per Acre lbs. bush.		Heads per plant	Per Cent. of Heads per Acre	Height (ins.)	Per Cent. Lodged	Per Cent. Rust	Days to Mature	Pounds per bush.	Yield per Acre Straw Grain (tons) (Bush.)	
1 2 3 4 6 8 12	$\begin{array}{r} 414.4 \\ 104.0 \\ 46.1 \\ 26.0 \\ 11.6 \\ 6.5 \\ 2.9 \end{array}$	$12.34 \\ 3.06 \\ 1.36 \\ .76 \\ .34 \\ .19 \\ .09$	$ \begin{array}{c} 1.0\\ 1.1\\ 1.3\\ 2.0\\ 4.2\\ 6.5\\ 11.2 \end{array} $	100 31 17 13 12 11 9	20.4 27.8 32.6 33.1 35.3 34.9 34.9	$5.6 \\ 11.9 \\ 12.8 \\ 29.9 \\ 35.8 \\ 34.7 \\ 30.1$	11.8 15.0 17.8 20.9 25.4 27.7 33.2	91 93 94 95 97 99 100	$25.0 \\ 31.4 \\ 33.2 \\ 31.5 \\ 28.6 \\ 26.4 \\ 23.9$	$1.75 \\ 1.58 \\ 1.52 \\ 1.29 \\ 1.40 \\ 1.20 \\ 1.03$	30.60 34.95 41.73 38.99 37.42 31.77 21.93

I noticed in a recent issue of "The Farmer's Advocate" a treatment for white scours in calves. I have had considerable experience in this matter, and I have not found anything better than a few feeds of new milk from any cow. We have one in our barn now that was scoured badly, but a few small feeds of new milk changed conditions of bowels altogether, and its bowels now are normal and the calf is doing well. Bruce Co., Ont.

G. D. S.

[Note.—Are you sure the scours to which you refer is "white scours"? It would appear from the cure that it is simply due to deranged digestion, caused by overfeeding on skim milk or something else.—Editor.]

## THE FARM

## Thickness of Seeding in Cereal Grains

An address by Prof. C. A. Zavitz, Ontario Agricul-

In an experiment of this kind, it is usually considered wise to .extend the experiment into extreme conditions, hence, in the thickest seeding, the oat grains were planted one inch apart each way, which would require, on the average, a little over twelve bushels of seed per acre, and in the thinnest seeding the oat grains were planted one foot apart each way, which would require only about one-tenth of a bushel or a little less than three pounds of seed per acre. Some of the intermediate seedlings, however, approximate more closely the quantities of seed which are used in actual practice, as, for instance, where the grains were planted two inches apart each way, it required about three bushels of seed per acre, and where the seeds were planted three inches apart each way, the amount of seed required would be about one and one-third bushels per acre. We expect to start another experiment in which several different thicknesses of seeding will be used, but the range will probably run from about one to four bushels per acre.

The foregoing average results are worthy of very careful consideration. It is probably the first time that an experiment of this kind has conducted in the manner here described. It should be remembered that each column represents the average of thirty-two distinct experiments. Those experiments covered a period of four years, which included an exceptionally dry season and an exceptionally wet season. The yields of grain per acre are much lower than we usually obtain in the Experimental Grounds at Guelph. This is due to certain reasons, one reason being the unfavorable weather conditions of some of the years, and another reason being the fact that we conducted the experiment on land which would be unlikely to cause the straw to become badly lodged, especially in a wet season. Even though this precaution was taken, the crop lodged considerably, especially in 1912, when the weather conditions were conducive to a very large yield of straw of a succulent character. The fourth column from the left shows that the number of heads, or stools of an oat plant can he regulated largely by the thickness of seeding. When the seeds were planted one inch apart each way, there was only an average of one head per plant, and when the seeds were planted twelve inches apart each way there was an average of eleven heads per plant. The number of heads per plant increased according to the increase in the distance between the plants. In the fifth column we have the comparative number of heads from equal areas of land. Where the freeds were plantied one inch apart there were 144 times as many plants as on the same area of land where the seeds were planted twelve inches apart, and only about eleven times as many heads. It will, therefore, be seen that while the number of heads per acre decreases with the thinness of the seeding, that decrease is not nearly as great as the decrease in the number of seeds planted.

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Aco six, th the p square ler th square than t square plants was s expend fice of sults a certai be see were t produc inches very 1 lodged results concer parati the lo The shown esting of rus to the thin s as the rust o was a the th The that 1 matur seen t the ti until increa exactl

the p the l fore, I per a crop i Th althou the of esting avera from square ual d thicke The l seedin oats ] third weigh avera. memb years the w able : in On Th is p avera produ parat sown gave was a per a a gra per a ings. three half hundi seed In as th great from each decre and t to no was crop acre. thin ducti Pa fact one a place yield meas three acre. are v o lo anot sults unde this

usualfy frets and The ewe fights, and this, together with the enforced lack of exercise, pulls her down in condition, and her milk flow is also impaired to the detriment of the lamb's welfare. The ewe recognizes her lamb from the smell of the lamb at birth, or from that which comes when her milk has passed through the lamb's digestive tract.

Sometimes ewes which lose their lambs may be made to foster-mother other lambs, by skinning the dead lamb and fastening the skin on the living lamb for a few days.

Where other things fail with the ewe which persists in disowning her own progeny, try the All dogs are not safe for this work, but dog. if the dog is accustomed to driving or being around the sheep and they are accustomed to him, he will not be likely to injure them. Of course the attendant must' watch proceedings, as it would be folly to ruin a good sheep or a good dog. Place the ewe and her lamb or lambs in a box stall by themselves, and take the dog in. Usually the ewe will object to the dog's presence, and will seek to shield the lambs. If so, this is all that is necessary. If she does not, set the dog on her gently. Do not allow or encourage him to bite her, and generally she will own the lambs immediately, and will seek to expel the dog from the stall. This is not an infallible cure, but where other means fail is well worth trying. The writer has had good success with it on two different occasions. It requires care, but when it works is a quick and efficient remedy.

In milder cases. especially with young ewes, very often all that is necessary is to place the ewe and her charge in a pen by themselves until she becomes acquainted with and interested in her offspring, and the trouble ceases.

## tural College, before the Canadian - growers Convention, Ottawa, 1913.

The question of the amount of seed of the cereal grains to be sown for the best results, has been discussed many times and in many places. Experiments have also been conducted with the object of securing information on this problem in different countries, and yet we have reached no unanimity in regard to the matter. We find, for instance, in Canada, that the amount of oats which are sown per acre will vary from one to four bushels, and in Scotland the quantity frequently reaches six bushels of seed per acre. We find very strong advocates of using as small a quantity as one bushel of oats per acre, while others will argue as earnestly for the advisability of using as high as six bushels or more per acre. It is undoubtedly true that the amount of seed per acre which would give the highest results under certain circumstances, would not give the highest results under other conditions. There are many factors which exert an influence in determining the quantity of seed to use to give the best returns, each of these factors producing its own particular influence. The fertility of the soil, the state of cultivation, the moisture content of the soil, the variety of the crop, the method of seeding, the date of seeding, and many other factors, apparently exert their respective influences in regard to the amount of seed to be sown in order to secure the highest returns. If this be true, it can readily be seen that we cannot come to a definite conclusion regarding the quantity of seed to use per acre of any class of farm crops which would give the highest returns under all circumstances. I am pleased to present at this time the preliminary results of an experiment which was started at the Ontario