

physical examination are the best methods by which you can determine the presence of the disease in cattle, but I would do this solely for the protection of the herd." * * * "The tuberculin test is a very valuable diagnostic if it is performed with good tuberculin by a man of experience and judgment."

Dr. Wilhelm Becker, a physician of Milwaukee, said, "The tuberculin test is absolutely unreliable in the human. Tuberculosis transmitted by the bovine to the human is extremely rare. Tuberculosis contracted by ingestion of milk is also infinitesimally rare."

The evidence in favor of the city is condensed as follows: Seven farmers testified that they had used the tuberculin test in their herds; that they had found it accurate and harmless; that an animal may appear all right on physical examination and yet be badly diseased.

Dr. Wm. H. Parks, director of the bacteriological laboratory of the city of New York, told of finding in children 31 cases of tuberculosis of the bovine type. "I am convinced that human beings contract tuberculosis through tubercle bacilli which have been taken through milk which contained tubercle bacilli from cattle."

Dr. John R. Mohler, chief of the pathological division of the Bureau of Animal Industry of the Department of Agriculture of the United States, said, "As a result of much experience in the test and in post mortems, I consider the tuberculin test the most delicate method of diagnosing tuberculosis that we have and while it is not infallible it is so accurate that it is the only satisfactory means in our possession for determining the presence of tuberculosis in cattle. * * * The purpose of the Federal inspectors at the slaughter houses is to ascertain the lesions present and dispose of the carcasses in accordance with the number and extent of the lesions found. They are not supposed to make a minute study of the glandular system of cattle. "We have collected statistics from 15 years previous to 1908 of cattle that have been tuberculin tested by the Bureau, and found lesions in 98 per cent. of those that were slaughtered."

AN EFFICIENCY OF 99 PER CENT.

"Dr. Ernest C. Schroeder, Superintendent of the Experimental Station of the United States Bureau of Animal Industry, identified several bulletins as written by himself and said, "The result of my tests is that under my direction tuberculin manufactured by the Bureau of which I am a member has an efficiency of about 99 per cent. Previous to the introduction of tuberculin as a diagnostic agent, veterinarians made physical examinations of cattle and when they diagnosed tuberculosis it was usually in a cow that was in the last stages of the disease."

Dr. D. B. Clark, a veterinary surgeon of Wisconsin, said that in many thousand post mortems made by him the disease had been found present in cattle when they had reacted under the test if properly applied. It can be found by the naked eye in about 99 per cent. of the cases. 95 per cent. of the cases which are tuberculous will show no external appearances at all of tuberculosis.

Dr. Gustav A. Kletsch of Milwaukee, testified that he had his cattle tested every year for three years. The first year he lost about 11 out of 70, the second year 9 and the third year none. The second year he followed the condemned cattle to the slaughter house and saw the post mortems and in the case of about five, he could not demonstrate that they were tuberculous.

The manager of Senator Stephenson's farm said that for three years the dairy herd had been tested every six months. On the first test 64 reactors were found and on post mortem at the slaughter house he found tubercular lesions in all but three or four.

Professor Russell, of the University of Wisconsin, Dean of the College of Agriculture, told of his

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Summer Care of Breeding Swine

G. H. Smith, Middlesex Co., Ont.

Before we can have good market hogs we must have good breeding stock. There is no excuse for a man continuing to use poor, scrub breeding stock when it comes to swine. Pure bred swine of good quality are so cheap as to be within the reach of all. It should be remembered, however, that the best of stock degenerates under poor management. Some important points in the care of the breeding swine in the summer months, is the purpose of this article.

There is probably no animal around the farm



A New Ontario Settler

The illustration shows a settler in New Ontario at Cochrane, Cochrane is 430 miles north of Toronto, and about 120 miles from Hudson Bay. The illustration gives an idea of the level nature of the country and of the soil. There are millions of acres of clay land of this nature in New Ontario. Cochrane has several hundred residents. A year and a half ago it had practically none.

that receives so little care as does the boar. Ill-nourished and ill-housed, without exercise, he has no chance to transmit vigor and constitution to his progeny. Some breeders go to the extreme of keeping the boar too fat. In such a condition he cannot render satisfactory service.

CARE OF THE BOAR.

The boar requires better care than most breeding animals and should be treated accordingly. In the summer the care he will require will depend to a large extent on the nature of the brute.



A Historic Train in New Ontario

The illustration shows the Pullman cars and the dining car which conveyed 100 members of the Canadian Press Association recently into the vast region of New Ontario. The illustration was taken at a point on the National Transcontinental Railway, near the Metagamit River. This was the first train of the kind that ever reached this point. As a result of this trip, newspaper men all over Ontario are now pointing out that New Ontario offers advantages that are unequalled by any other portion of the world, not excepting even our splendid Northwest. Within the next few years, there will be a great rush of settlers to New Ontario.

A boar which is inclined to lay on fat very rapidly should be forced to gather a good part of its living from pasture. The best place for any boar is in a good, shady pasture with a plentiful supply of fresh water. The pasture should be supplemented with grain, such as ground oats, barley or middlings. A little cornmeal may be fed, but not much, as it is too fattening.

When it is impossible to provide pasture, the boar should be kept in a clean pen with an out-

side run. Green feed should be supplied once or twice a day. For this purpose rape is much relished and it would be profitable to sow a small plot for his benefit. If the boar shows any tendency to become fat, the grain ration should be reduced.

SELECTION AND CARE OF SOWS.

The sows which are to be kept for breeding purposes should be selected shortly after weaning. They need to be treated differently from those intended for market. Here the object is not to increase the weight as fast as possible, but to build up a strong muscular animal with a good constitution. The young sows should have lots of exercise from the first. A pasture or grassy paddock of good size is absolutely necessary if the best results are to be obtained. Plenty of green feed will be obtained from the pasture. Clover or alfalfa pasture is preferred.

The grain feed for the sows should be similar to that recommended for the boar. No corn should be fed if it can be avoided. Keep them growing and vigorous, but not fat. Sows raised in this way will be strong and vigorous and in good condition to become satisfactory breeders.

Fresh air and exercise are two great points to be remembered in handling breeding stock of all kinds, and these points apply to swine with even greater force than to other domesticated farm animals.

Rib Grass—A Bad Weed in Clover

T. G. Raynor, B.S.A., Seed Branch, Ottawa.

One of the weed seeds most frequently found in red clover seed is rib-grass. It is also called buckhorn, buckthorn and plantain. Every farmer should be able, to not only know the seed but the plant. A great many farmers do, and that to their sorrow. If they have been clover seed producers and have this plant in any quantity they know that the buyers will discriminate against it. One farmer claimed that in one season's crop he took \$300 less for his crop than he would have had not this seed been present.

The plant itself is easily distinguished. It has long narrow leaves growing up from the crown of the perennial fibrous root. Then it shoots up a number of flowering stems, which blossom and resemble in appearance a timothy head; it has been called wild timothy for that reason. Ribgrass is a very persistent weed to grow and will make several attempts to produce seed in the same season if held back by being cut off.

In a clover meadow, where it is often seen in abundance, it could be eliminated by contaminating the seed crop, which had been pastured, by running the mower over the field just after the stock had been shut out; then go over the field in narrow lands; the plant is easily seen and could be cut out with a hoe or spud. If the meadow were mown for hay, the same method could be adopted three or four days after mowing when the growth would start up again.

Our seed merchants are sending the seed most badly contaminated with the ribgrass out of the country. Their re-cleaning plants will take out a lot of it, but not without a big trace in cleaning. Still there is plenty of seed offered in the spring trade with more or less of the seed in it.

The plant is not a hard one to get rid of. It is essentially a meadow weed, which sheep and cattle will eat and relish. In fact, in Great Britain it is sown for sheep pasture. In this country, however, it is a weed.

By adopting a three or four year rotation of crops in which a hoe crop would follow the meadow, the plant will soon disappear, except it may have got in the fence corners or other waste places. There are some parts of Ontario more particularly the western part, where this plant is very bad. It is found, however, more or less all over the province, and has been distributed to a large extent as a weed seed impurity in red clover.