Alberta. Directors—George Brant, Warwick; A. Waldie, Acton West; Richard Stutt, Forest; James Carswell, Renfrew; F. A. Fleming, Weston; A. Rawlings, Forest; Isaac Wiser, Prescott; H. Reed, Mimosa; Jos. Sharman, Todburn, Man. Auditor—G. W. Green, Toronto; secretary-treasurer, H. Wade, Toronto.

# VII. THE AGRICULTURAL AND EXPERIMENTAL UNION.

The eighteenth annual meeting opened at the college at Guelph on the afternoon of December 10th, 1891. There was a larger attendance of exstudents present than there had been for a number of years. Vice-President D. Z. Gibson occupied the chair. President Lick, of Oshawa, gave his address, and a short discussion followed.

## INJURIOUS WEEDS AND INSECTS.

Professor Panton spoke on "The Injurious Weeds and Insects During 1896." The six most injurious weeds seem to vary somewhat from year to year, This year they were: Canada thistle, mustard. ox-eye daisy, wild oat, ragweed, and burdock. The six worst insects seem to be about the same year after year. This year they were: the potato beetle, grasshopper, hornfly, cutworm, tent caterpillar, and the army worm. The hornfly appears to be on the decrease.

Mr. T. F. Patterson led the discussion, which was a very interesting one. Dr. Mills said any man that had a dirty farm either worked too much land, did not understand his business, or he was lazy. Mr. Rennie said that surface cultivation was decidedly the best way of fighting weeds.

### RATIONS FOR COWS.

Mr. G. E. Day spoke on "Fations for Cows." He reported that he had sent out a larbe number of questions to farmers in all parts of the province in regard to dairy matters, and had received 170 replies. From these replies he found as to the time that cows should be allowed to go dry the average opinion was 57 days. Some 68 men reported that they had good results from dehorning their cows; only one man was sorry he had done so.

Mr. Day's address on this important subject was practical, and illustrated with charts. Mr. Alex. Yuill, of Carleton Place, led the discussion thereon, which was a very lively one. One gentleman had found alfalfa or lucerne very valuable pasture for dairy cows. Mr. Zavitz reported that alfalfa had been tried with fair success on the college farm. Mr. Taylor, of Lincoln, Nebraska, who has been travelling in Europe for the past year, spoke of how alfalfa was grown in almost every country in the world but Canada. In Nebraska the farmers used it for feeding to their nogs.

# RCONOMIC PEEDLY 7 OF LITE STOCK.

This subject was taken up by Mr. Wm. Rennie, the Farm Superintendent. Some of the points for success'ul and economic feeding brought out by Mr. Rennie were: a love for and a thorough understanding of the stock; punctuality; making the animals contented; keeping them comfortable; and properly ventilating the stable. He strongly advocated succulent foods.

# THE OPEN MEETING.

The open meeting in the Convocation Hall was very largely attended by those interested in the

work. President Mills presided. Professor Thorne, director of the Experiment Station, Wooster. Ohio, spoke on "The Farm and the School." Mrs. Hoodeless, of Hamilton, gave the address on "Domestic Science" that she was to have given at the joint meeting in the city. Mr. Thomas Grenier, editor "Farm and Home," gave a talk on "Beautifying the Home"—a happy home is the quintessence of earthly bliss. Hon. John Dryden made a very fine address on "Our Province." The College Glee Club furnished music for the programme, and fittingly closed the meeting with "The Maple Leaf."

#### DAIRYING EXPERIMENTS.

At the third session Mr. T. C. Rogers reported on the experiments carried on by the Dairy Committee. The committee found that cheese with a large per cent. of butter fat had better keeping qualities than that with a low per cent. Also that unwashed butter scored the highest number of points when fresh; at the end of two weeks the washed butter scored the highest number of points.

FOUL BROOD BACILLUS.

Mr. F. C. Harrison's paper on his investigations on the foul brood bacillus was a very interesting one, but the time allowed to it was rather too short to do it justice.

#### LEADING STRAWBERRIES.

Mr. H. L. Hutt gave the report of the Horticultural Committee. The strawberries were the only variety of small fruits experimented with that gave satisfactory results. The Warfield stood the highest. The Heverland was particularly free from rust. Van Dieman's stood at the top as an early berry, but forty-seventh on the list for total yield. It would make a profitable berry for the producer, as a large yield at the first two or three pickings was often more profitable than a whole crop later in the season. The Warfield stood fourth as an early variety, and was a good berry for heavy land.

## OTHER ADDRESSES.

"The Garden as an Educator" was the subject of Mr. Grenier's paper, and brought out a lot of discussion.

Mr. C. A. Zavitz reported on the co-operative experiments relating to the different kinds of grain. Professor Charles E. Thorne spoke on the "Best Methods of Increasing and Maintaining the Fertility of the Soil."

The officers for the following year are: President, D. Z. Gibson, Willow Grove; Vice-President, Geo. Harcourt, Toronto; Directors, Dr. James Mi.ls; T. G. Raynor, Rosehall; N. Monteith, Stratford; E. Lick, Oshawa; and C. A. Zavitz, Guelph.

Committee on Agriculture—C. A. Zavitz, Dr. Mills, Professor Shuttleworth, James Atkinson, O.A.C., John Buchanan, O.A.C.

Horticulture-Professor Hutt, J. A. Campbell, E. Lick.

Apiculture-R. F. Holtermann, Brantford; F. C. Harrison, O.A.C.; R. M. Husband

Dairying-Professor Dean; H. L. Beckett, Hamilton; S. P. Brown, Whitby.

Economic Botany and Entomology-Professor Panton; T. F. Patterson, O.A.C.; Wm. McCailum, O.A.C.

Live Stock-Professor Day; W. Ballantyne, Stratford; W. Rennie, O.A.C.

Auditors-Allan Shantz, Waterloo; W. J. Elliott, Galt.