

To keep his herds up to the highest standard Mr. Marsh makes periodical visits across the Atlantic to the Island of Guernsey and the south of England, and secures the best animals that money can buy, with the result that his herds are famed throughout America and hold the highest positions in the show-ring as well as records in milk-production. As the Guernsey breed is not so well known in New Zealand as some of the other breeds, it may be of interest to give particulars in regard to a few cows comprising this famous herd :—

Glencoe's Bopeep, 18602: Official yearly record, 13,121·70 lb. milk, 622·61 lb. fat; thirteen times grand champion at State fairs and National Dairy Shows; grand champion over all breeds at 1912 National Dairy Show. Jessy Rose, 28373: Official yearly record, 12,694·60 lb. milk, 646·03 lb. fat; grand champion cow at National Dairy Show, 1913. Elberon's Glenwood, 28934: Official yearly record, 15,689·80 lb. milk, 825·90 lb. fat. Dairymaid of Pinehurst, 24656: World's champion of all breeds; 860·26 lb. fat; one time Guernsey champion rising four-year-old; official record, 17,285·30 lb. milk, 910·67 lb. fat.

His herds were all in the pink of condition at time of my visit, quite a large number being ready for exhibition and competition at the forthcoming cattle fairs or shows throughout America, showing great quality and with the points indicating great milk-production very pronounced. One could not but be impressed with their size, being large-framed and evidently hardy and strong-constitutioned. They were very docile and easily managed. I was given to understand that the Guernsey breed in America stand fairly severe weather-conditions.

In the State through which I travelled the dairy cattle are housed in summer as well as in winter. Many of the barns (byres or cowsheds) on Mr. Marsh's farms are built on the most modern and up-to-date lines, where both light and ventilation with perfect sanitary conditions are marked features.

University of Wisconsin Agricultural Experiment Station.

This station is situated at Madison, Wisconsin, approximately in latitude $43\frac{1}{2}^{\circ}$ N. The area of the State of Wisconsin is 35,882,240 acres, and the population at the last census (1910) 2,333,860. The mean annual rainfall amounts to 31 in.

In the absence of the President of the University, Mr. E. H. Farrington, Professor of Dairy Husbandry, whom I had met at the Exhibition at San Francisco, where we both acted as members of the International Juries of Award, kindly undertook to show me over the college buildings and experimental farm, and, together with Mr. R. A. Moore, Professor of Agronomy, gave me every facility to acquire information in relation to the scope of the operations, experimental work undertaken, and means adopted for the dissemination of agricultural education and development throughout the State.

The departmental activities of the college are very extensive, embracing, amongst others,—

Examination of Soils and Analyses.—The fee for this service is £1 for the field examination and chemical analysis of areas not exceeding 160 acres, with an additional charge of 12s. for each quarter-section or part thereof.

Soil-fertility Demonstrations.—These consist of demonstrations as to the use of phosphorus fertilizers on upland soils; use of lime for correcting acidity; management of marsh soils, including the fertilizer requirement, methods of tillage, and crops to which they are adapted; management of sandy soils so as to improve their fertility and water-holding capacity; the management of heavy clay soils, especially with reference to tillage; and special methods of tillage, such as deep tillage on clay and silt-loam soils.

Drainage-work.—In this farmers desiring to improve their wet lands by drainage are assisted by the Soils Department. Where possible the department sends a staff member to make the necessary preliminary examination to determine the feasibility of drainage and the best and most economical methods of accomplishing these results.

The Legislature has enacted a drainage law under which drainage districts are organized, making it possible to reduce the amount of time necessary to conform to proper Court procedure. It also requires the College of Agriculture to submit a report on the quality of the soil in the proposed district, the feasibility of drainage, the probable benefits of such improvements, the approximate cost of construction, and the probable distribution of the benefits throughout the district.

Crop Demonstrations on County and State Farms.—Demonstration work on the various county asylum farms and some of the State institutions has proved a most admirable method of disseminating desirable agricultural practices, while at the same time it has served to develop community life. A large number of experiments have been projected, and the managing authorities of these farms have co-operated most cordially in the execution of the necessary work which would best portray the lesson to be learned.

In this way it has been possible to test nearly all soil types and different climatic conditions found in the State of Wisconsin. The work is done on large fields under normal conditions, so that the criticism which is often made that work under such institutions is not on the same basis as the farmer's work cannot obtain. By repeated trials of this sort on any farm for a number of years the natural variation due to abnormal weather-conditions is overcome. Some of these farms have thus become very important seed-producing centres.

Every effort is being made to encourage lucerne-growing, using inoculated soils and cultures. Lime trials have also been made.

Towards the end of summer and the beginning of autumn what are known as basket picnics are held at most of these farms, and the surrounding farmers are thus given an opportunity to see the plots and fields in a growing condition. A large number of these meetings are held annually, the aggregate attendances at these in 1914 being 4,845.