A MODEL DAIRY AT THE ANTI-TUBERCULOSIS SANATORIUM OF PORTO RICO

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Many and most important improvements are being made in the Insular Anti-Tuberculosis Sanatorium located at Río Piedras, P. R. One of these is the construction of a model dairy on the grounds of the institution, in order to furnish the inmates of the sanatorium with certified, fresh milk.

Milk is known to be, not only a most nourishing, palatable and easily digested food for the sick, but a reconstituent as well, since it contains all the nutritive elements. The fats and albuminoids in milk are of priceless physiological value, always superior to those found in other foods. Fresh milk is easily digested and is more nourishing than when boiled because being fresh it contains vitamins which are so necessary, especially to patients suffering from debilitating diseases such as tuberculosis. This mysterious element called "vitamin" which seems to be so essential to our organism, is destroyed under the action of heat, hence, when the milk is boiled this most valuable element is lost, a fact which alone is sufficient to demonstrate how essential a model dairy farm is to the Anti-Tuberculosis Sanatorium of Porto Rico.

Raw milk, however, is dangerous in that it constitutes a favorable medium for the development of bacteria. The organisms of typhoid, tuberculosis, contagious-abortion and other bacteria either harmless or harmful, such for example as the coli group, may be found in it. All these germs develop more rapidly in places where there is filth and stagnant air than in clean and ventilated places. If a dairy farm is not absolutely hygienic in every respect, if aseptic measures are not strictly adhered to, and if the cows are not in a thoroughly healthy condition, it is obvious that raw milk will injure rather than benefit the sick and the public in general.

To do away with these dangers the Department of Health is constructing a model dairy, on the grounds of the Sanatorium which is to have a most complete and modern equipment. The selection of cows to meet the demands of this dairy has naturally been the primary consideration. In view of the superior quality of their milk, as well as for the facility with which, as we have found by

Full-blooded Jersey Bull, belonging to the Dairy Farm

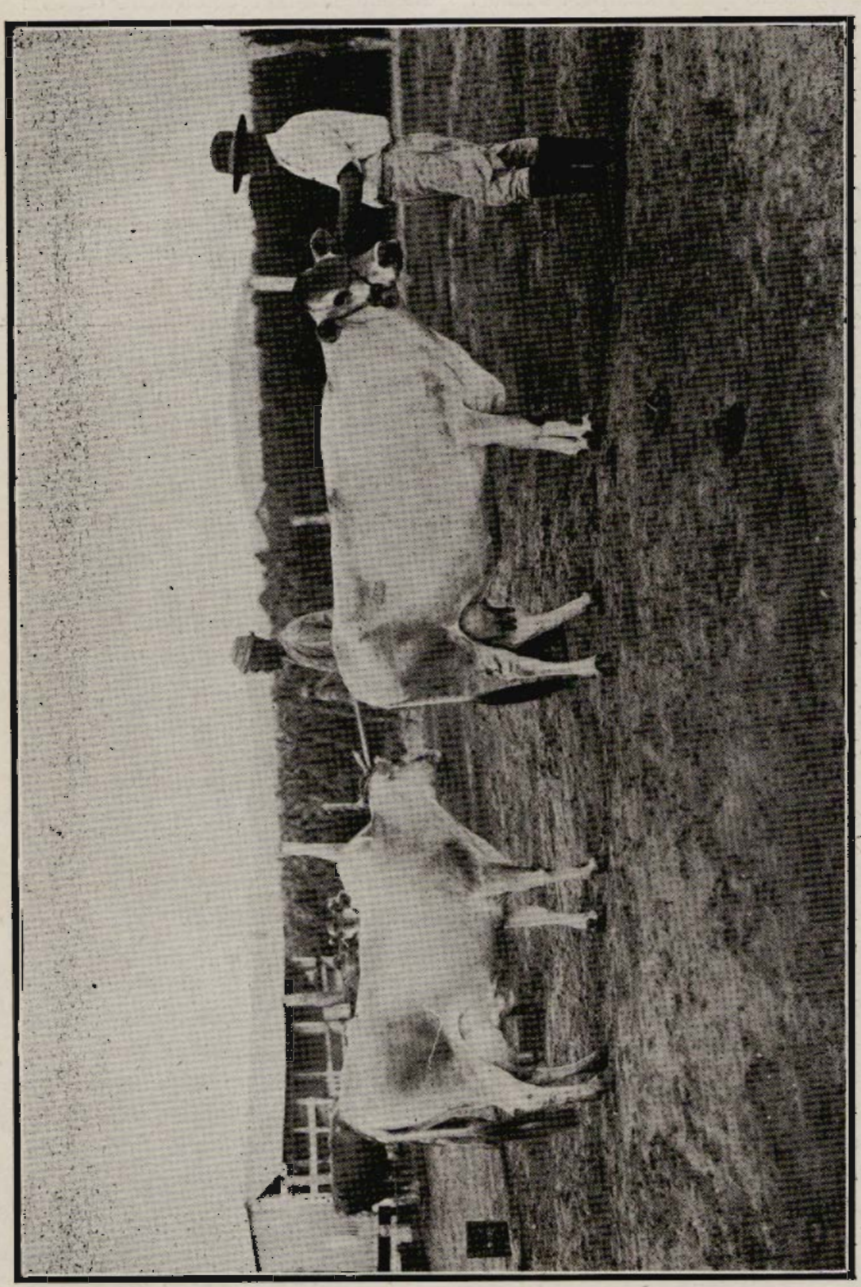
experience, they adapt themselves to the natural conditions of this climate, young Jersey cows have been chosen, all having been given the tuberculine test in order to be certain that they are free from tuberculosis.

The land on which the dairy farm is situated is especially suitable as it is planted in "Malojillo", Guatemala and elephant grass which thrive well in the soil of that region, and are unsurpassed as food for cattle. Concentrated food will also be prepared for the cows at the dairy farm. This will insure a food richer in protein than any other obtainable in the market and at the same time it will be much cheaper.

The dairy farm is being constructed on the slope of a hill, the summit of which is occupied by the Sanatorium, and at a proper distance from the same. No building will be so near it as to prevent the free circulation of air, and the surroundings will be kept absolutely clean and dry. The dairy proper will be a one-story building of marked simplicity, this being the most satisfactory form of construction for this country. Its framework will be of steel and its tile roof will render it cooler. The floor will be constructed of cork bricks, this being the material most widely known and used thus far for stable floors since it has the advantage over those made of concrete in that it maintains an even temperature, is soft as well as impermeable, easy to clean and disinfect and at the same time very durable.

The stable will accommodate sixty cows which will be kept there at all times except when turned loose daily in the barnyard for exercise and sunshine and during the night when they will be outside. Each stall will be provided with a stanchion which, besides protecting each animal, will insure a maximum of comfort. Stanchions made of galvanized-iron tubes are simple, strong and durable. The stalls will also be provided with a special galvanized-iron trough for drinking purposes. This is a most practical device for, in case of disease, a separate drinking place for each animal will avert contagion, and at the same time afford the opportunity of allowing a thirsty cow to drink without having to wait until a certain hour to go to a common trough. There will be sufficient space down the centre of the building for a double track to be laid for the purpose of carrying food in wagons to the stalls. The stalls will be arranged in two rows, both facing the central passageway.

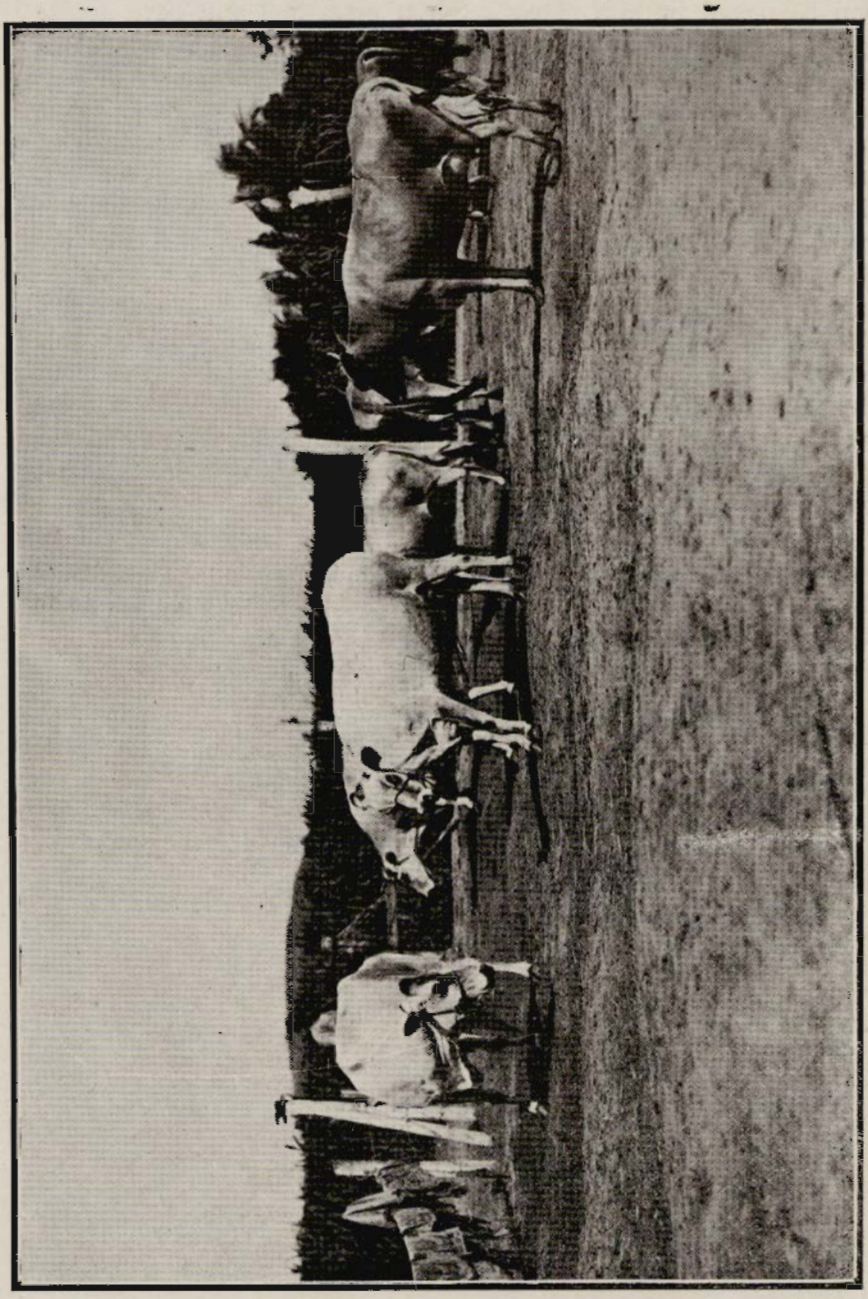
At both ends of each line of stalls there will be yards for calves, each of such yards to be supplied with drinking water. These yards



Specimens of the Jersey Cows which Supply Fresh Milk to the Inmates.

will be fenced in with galvanized-iron pipes and will have double gates. Leading out of one of the yards there will be a divsion which will be used as a maternity department, and still one more department for cows found to be in any other condition which makes it necessary for them to be isolated. A cage for the bull will be located in front of the maternity department, and adjoining these two last-named yards, but separated by a passageway six feet broad, two rooms will be constructed, one for the storing of grass and the other for concentrated foods. A machine run by an electric motor will be installed in one of these divisions for the purpose of cutting grass. At the opposite end of the building, and separated from the calf enclosure by a special passageway there will be a cold-storage plant for milk refrigeration and facing the latter there will be a room where the milkmen may change their clothing. To the rear of the two lines of stalls there will be a corridor four and one-half feet wide.

The entire building, including all of its departments will be lighted by electricity and the drainage system will be so complete as to make the cleaning of the dairy not only an easy task, but as to insure the most hygienic conditions at all times.



A Group of the Sixty Head of Cattle at the Dairy Farm