SUMMARY OF MILK.

408 samples of milk tested.
384 samples contained more than 3 per cent. of butter fat.
235 samples contained more than 3.5 per cent. of butter fat.
107 samples contained more than 4 per cent. of butter fat.
24 samples contained less than 3 per cent. of butter fat.

These samples represent very fairly the quality of milk supplied to creameries and cheese factories, as well as that sold to individuals in the larger cities of the state.

Although these 408 samples represent a very small portion of the milk supply of Wisconsin, yet, the wide distribution of the samples, and the varying conditions under which they were taken, enable us to form some idea as to the quality of Wisconsin milk, and likewise to judge if the standard required by law is a just one from the producers' standpoint. The present standard in Wisconsin requires at least three per cent. of butter fat to be present in all milk offered for sale. This standard is adopted from a careful consideration of the composition of milk produced under all conditions of age, breed, and feed. The standard represents not the average composition of milk but is intended to represent the quality of milk produced by the poorest animals under normal conditions of feed and health. The milk standard is a very important question to both the milk producer and consumer. Too high a standard would be injurious to the producer, as it would require him to keep a particular breed of cows that his product should meet the requirements of the law. Too low a standard would be unjust to the consumer, as it would be an incentive to the breeding of animals giving large quantities of low grade milk. The reason for the existence of low grade and adulterated milk lies in the fact that milk is one of the few articles of food of whose quality the consumer cannot judge by examination. The presence or absence of cream is the only test possessed by the consumer, and that is of but little value when applied to milk which has been transported any distance.
If milk has been diluted in any way and it still contains there per cent. of butter fat, the person who dilutes and delivers it to a customer or a factory has violated the law.

BAKING POWDER.

The use of baking powders as a substitute for yeast in the aeration of bread is comparatively modern. These powders are composed of bicarbonate of soda with the addition of one or more of the following chemicals: Cream of tartar, tartaric acid, alum, and acid phosphate of lime, the object being the production of carbonic acid gas. When this powder is mixed with the flour and water added to make dough, the chemicals are dissolved and the carbonic acid set free. The salt resulting from the chemical action remains in the bread and is eaten with it. This process is an imitation of the method of making bread with sour milk and saleratus, only in place of the lactic acid of the sour milk, cream of tartar, alum, or acid phosphate is used. The use of these bread preparations has given rise to a large and growing industry. The amount consumed in the United States is estimated at from fifty to seventy-five million pounds per year, having a value of from twenty to twenty-five million dollars.

There is no recognized standard composition of baking powders; provided the manufacturer does not use any substance injurious to health, his choice as to chemicals is not limited. Fortunately the list of chemicals that can be used for that purpose is small. The requirements of cheapness and palatability confine the manufacturers to the following list: Cream of tartar, tartaric acid, alum, acid phosphate of lime. One or more of the above mixed in the proper proportions with bicarbonate of soda and starch constitutes the baking powder found on the market at the present time.

All powders on the market may be classed under one of the following heads:

1st. Tartaric powders, in which the acid is tartaric acid or cream of tartar.

2nd. Phosphate powders, in which the tartaric acid is replaced by acid phosphate of lime.