## SUMMARY

Much of the butter manufactured in Iowa shows too great a variation in chemical composition.

Frequent chemical analysis of the butter will assist the operator in controlling its composition.

The composition of 1,344 samples of butter obtained from 28 creameries during the calendar year 1933 was as follows:

| Butterfat | 80.71 | percent |
| :---: | :---: | :---: |
| Moisture | 16.17 |  |
| Salt | 2.38 | " |
| Curd | . 74 | " |
| otal | 00.00 | percent |

The butter produced by one creamery contained an average fat content for one year of 80.43 percent, which was the lowest average for any creamery having every churning conform to the Federal standard.

Forty-three creameries making a satisfactory quality of butter showed an estimated gain of 103,767 pounds of butter from one year's operation as a result of utilizing regular information concerning the chemical composition of the butter.

Twenty of twenty-eight creameries manufacturing butter of a low fat content improved the composition of their butter.

Uniform methods of procedure in manufacturing will produce butter of uniform composition.

Buttermakers experience difficulties in distributing the salt uniformly throughout the butter when the salt for a churning is weighed and added as one lot. More satisfactory results were obtained when the salt for a churning was weighed in two or three lots and each lot distributed over one-half or one-third, respectively, of the butter in the churn.

It will be difficult to obtain an overrun of 23 percent in a gathered cream plant and above 20 percent in a whole milk plant.

# Standardization of Iowa Butter 

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