

for the ferment itself to be cooled that the churning may do exhaustive work by keeping the fat in a proper state of firmness. In both processes, the finishing of the making being the same, we need say nothing about it, the scope of this pamphlet only extends to that part of the work that is peculiar to the making of butter from sweet cream.

A look at the table shows us:

1. That the acidity of milk in winter is about .1930; on account of the low temperature of that season, very little acidity is developed, and we may regard those figures as the normal point of good milk.

2. That in winter, the percentage of cream being 11.45, and that 4.38, the volume of the cream per 100 lbs. of milk is 2.61 times that of the fat of the milk. In summer, this proportion is 2.75.

3. That in winter the acidity of the cream is .1456, in summer, .1530; we may say that had we been dealing with a milk in a perfectly normal state, this acidity would have been .14, a standard that we have adopted.

4. That although the percentage of ferment employed be, in summer 24 per cent, and in winter 28.97, the standard, until further orders, may be left as it is in summer and raised to 30 per cent in winter.

5. That the acidity of the ferment being 1.03 in summer, and 1.05 in winter we may place the standard at 1.00.

6. That the acidity of the cream and the ferment, as mixed in the churn, being in summer .3 and in winter .3153; that the acidity of the buttermilk being in summer .36 and in winter .3889, we can judge of the uniformity of the butters by submitting them to these averages.

7. That pasteurisation may be practised with results as satisfactory as in the usual process of soured cream.

8. That the daily record of butter-making during part of July and August, teaches that cream cooled down to 40° F. and poured into the churn at once, gave perfect results.

9. That cream must not be kept less than three hours at a temperature of 50°, except it be lowered to 40°.

10. That in pasteurising cream, immediate churning cannot be done with a satisfactory extraction (of all the butter), even if the cooling is carried as low as 40° F.