University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

Historical Materials from University of Nebraska-Lincoln Extension

Extension

1940

EC9936 Making Cheddar Cheese in the Home

Follow this and additional works at: http://digitalcommons.unl.edu/extensionhist

"EC9936 Making Cheddar Cheese in the Home" (1940). *Historical Materials from University of Nebraska-Lincoln Extension*. 2919.
http://digitalcommons.unl.edu/extensionhist/2919

This Article is brought to you for free and open access by the Extension at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Historical Materials from University of Nebraska-Lincoln Extension by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

S
85
E7
#9936 c.2

Discard

1940 Nebraska Extension
COOPERATIVE EXTENSION WORK Circular
IN AGRICULTURE AND HOME ECONOMICS 9936
U. of N. Agr. College & U. S. Dept. of Agr. Cooperating
W. H. Brokaw, Director, Lincoln

Making Cheddar Cheese in the Home

Since there has been an increased use of cheese as the source of a cheap protein, much interest is being centered on the making of cheese on the farm. It can be made any time of the year but is best adapted to regions where it is possible to keep the milk cool so that gas-forming bacteria will not develop. Where there is a surplus of milk as there often is during April, May and June, the making of Cheddar cheese offers a means of conserving for later use, milk which otherwise might be wasted. Essentials of good cheese making are (1) Good milk (2) Suitable equipment (3) A suitable rennet.

Milk

Good, clean, sweet, whole milk is used in making Cheddar cheese. If skim milk is used, the final product is hard, dry and lacking in flavor. The milk should not be more than 12 hours old as it is essential to have it sweet. If the milk is held overnight, it should be cooled to a temperature of 60 degrees F. or lower and held at that temperature until ready to be used.

Equipment

A large kettle or a wash boiler is used for heating the milk. A thermometer is of paramount importance because the temperature must be controlled throughout the entire process. A homemade draining rack may be easily made of slats one-half inch thick and three-fourths of an inch wide, set one-fourth inch apart and nailed to cross pieces. A three-fourths of an inch hole should be made in the end of the drain box near the bottom to allow the whey to drain out. A homemade press is shown in Fig 2.

Method

After placing the milk in the kettle or boiler, it is heated to 86 degrees F. Rennet which is used to coagulate the milk is added at this time. Two to three teaspoonfuls of rennet extract dissolved in one pint of cold water is required for 100 pounds of milk. (One gallon of milk testing from 3 to 6 percent content fat, weighs approximately 8.6 pounds.) Junket tablets may be used but 10 to 12 tablets should be used for the above amount of milk. Tablets should be dissolved in the same amount of cold water as is used with the rennet extract. After adding rennet to the milk, it is stirred thoroughly for a few minutes, then left undisturbed for 30 to 35 minutes. The container should be covered so as to keep the surface of the milk from cooling.

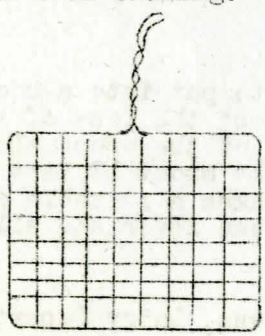

Fig. 1

Cutting the Curd

The curd is cut when firm. To test the firmness of the curd, insert the forefinger in the curd at about a 45 degree angle and about one-half inch under the surface. Slightly raise the finger and split the curd with the thumb. If the curd splits smoothly without leaving particles on the finger, it is ready to cut.

22088mh - 8/40

The curd is cut horizontally as well as vertically. If special curd knives are not available one can be readily made by fastening wires into a square wire frame as shown in Fig. 1. Such a device makes it possible to cut the curd uniformly in about 3/4 inch cubes, which is quite essential.

Stirring the Curd

After the curd is cut, it is stirred gently for about 15 minutes to prevent the pieces from matting together. During this stirring process, the pieces of curd contract and expel some of the whey. After fifteen or twenty minutes of this gentle agitation, begin to raise the temperature. This must be done very slowly, approximately not more than 2 degrees in five minutes, until a temperature of 100 degrees F. is reached. It is necessary to stir the curd during the entire heating process. The curd should remain in the whey at this temperature (100 degrees F.) until it is firm and sufficient acid has been developed.

Firmness of the Curd

The proper degree of firmness of the curd may be determined by lifting a handful of the curd from the whey and pressing between the fingers. If the pieces of curd fall apart at once when the hands are suddenly opened, the curd is of proper firmness. If the curd is allowed to become too firm, the cheese is dry and "corky", while on the other hand if the curd is too soft, the cheese will be soft, too moist, and may sour.

Developing the Acidity

One of the most important steps in the whole process is the development of the acidity in the curd while in the whey. An over-acid curd may produce a dry, mealy cheese with a sour flavor, while a curd with too little acid may develop gas and bad flavors during the curing process.

To test for acidity, remove a small amount of the curd from the whey, press gently with increasing firmness to expel moisture. Rub gently on a clean, hot iron until the curd adheres, then slowly pull away from the iron. If the curd forms strings one-fourth to one-half inch long, sufficient acid has developed and the whey should be removed. Remove the whey by dipping off as much as possible and then place the curd on a draining rack which has been covered with a piece of muslin. The curd is stirred continuously until all the free whey has escaped and then every five to ten minutes to prevent it from matting together. The temperature of the curd should still be 100 degrees F. so it is advisable to cover the curd and keep the drain rack inside the container so as to help to control the temperature. When the curd forms strings from three-fourths to one inch long on a hot iron, the curd is ready to be salted. About 3 ounces of salt are needed for 10 pounds of curd. After the salt has been thoroughly stirred through the curd, it should be allowed to dissolve.

Pressing

When the curd cools to about 85 degrees F. it is ready to put into a hoop for pressing. The pressure is applied gently at first so as to prevent the loss of butter fat. The pressure is regulated by placing a weight on the lever of the press about half-way between the hoop and the end of the lever which should be about 12 feet long (See Fig. 2). A pail of stones weighing about 35 or 40 pounds makes a suitable weight. After the first half hour the weight may be moved to the end of the lever and allowed to remain about an hour when the cheese is removed and dressed.

(Adapted and revised from Extension Circular 924 by Dr. P. A. Downs, Dairy Department, and Miss Mabel Doremus, State Extension Agent, Foods and Nutrition.)
22088mh - 8/40

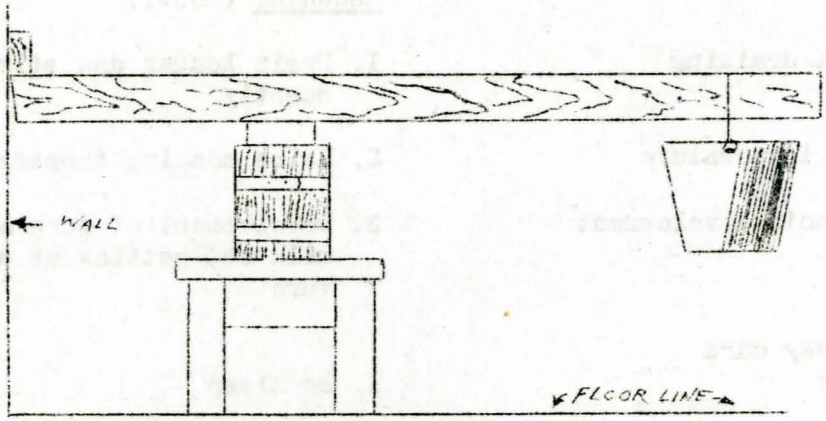

Fig. 2

Homemade cheese press. The cheese hoop should be placed about three feet from the wall. Moving the weight outward on the lever increases the pressure.

Dressing

In dressing the cheese, a cheesecloth is used to help form a firm rind. This may be placed in the hoop before the first pressing or may be placed around the cheese at the end of the first hour. After placing on the cheesecloth, dip in warm water and remove all wrinkles from the cloth. Fit two round pieces over each end. The cheesecloth is not to be removed at any time during the entire curing process. After the cheese has been properly dressed, it should be put into the press and full pressure applied for 24 hours. After that time it is removed from the press and placed in a cool place to cure.

A cellar with a temperature between 50 to 60 degrees F. and one that can be ventilated is a good place for slow curing. The cheese should be turned daily the first two weeks then twice a week. After a period of two to five days the outer surface becomes dry and then the cheese should be paraffined. This is done by dipping in paraffin heated to a temperature of 220 degrees F.

Cheddar Cheese

Defects	Remedies
A. Dry, mealy texture caused by	
1. Too much acid developed	1. Use only fresh milk
2. Too much acid and too much heat	2. Lower setting temperature or shorten setting period
3. Too much rennet	3. Use less rennet
4. Too long cooking period	4. Shorten period

Defects (cont.)	Remedies (cont.)
B. Sticky cheese	
1. Insufficient draining	1. Drain longer and stir more frequently
2. Low cooking temperature	2. Raise cooking temperature
3. Too little acid development	3. Development of more acid by ripening milk and setting at a higher temperature
C. Floating or gassy curd	
1. Unclean milk	1. Be clean
2. Unclean equipment	2. Be clean

For more detailed directions see (1) Making American Cheese on the Farm, U.S.D.A. Bulletin No. 1734.

22088mh - 8/40