

Time



To have us make the Kiddie's Picture

Now

Forest Grove STUDIO
N Main Street

W. F. HARTRAMPH

Feed Mill will run every day in the week.

Wholesale and Retail

Bran, Shorts, Rolled Oats, Ground Oats, Ground Wheat, Cracked Wheat, Cracked Corn, Whole Wheat and Corn, Middlings and several kinds of Hard Wheat Flour, Sack Twine and Sacks, Hay and Vetch Seed.

Give us a call when in need.

Ind Phone 50x Forest Grove, Ore

Beat the Prices at the **Farmers' Grocery and Meat Market**

Pacific Ave.

J. D. RODE

Put that Property You Want to Sell

"Under the Spot-Light!"

ADVERTISE IT! Not once, timidly and penny-wise! But as often as needed—and a showing of FACTS about it which will unfailingly interest the probable purchaser! Make it the best advertised real estate in the city—for a little while—and your buyer will seek you out and quickly close the transaction!

UNDERTAKING

Embalming and Funeral Directing

FOREST GROVE UNDERTAKING CO.

J. S. Buxton, Manager


Phone No. 642 Forest Grove, Or.

SURVEYOR

All kinds of surveying and mapping. Subdivisions a specialty.

H. B. GLAISYER,
Hoffman & Allen Bld'g
Phone 806
Forest Grove, Ore.

Farm Dairying



De Kol Creamelle, Holstein With Record of 26,280 Pounds of Milk in One Year

XIII.—Difficulties In Churning.

By LAURA ROSE,
Demonstrator and Lecturer in Dairying at the Ontario Agricultural College, Guelph, Canada.

[Copyright, 1911, by A. C. McClurg & Co.]

ALMOST all the difficulties met with in the dairy can be avoided by wisdom and care, but as they do come it is expedient to know how to meet them. The causes of cream not churning within a reasonable time are various:

First.—Too much cream in the churn. If it swells and nearly fills the churn, concussion practically ceases. Remedy: Take out half the cream and make two churnings. It will save time, butter and patience. A person is almost a saint who can be good natured at the end of three hours' hard churning. Never fill the churn over half full.

Second.—Cream too poor in fat. Where there is a large amount of skim-milk in the cream, the fat globules do not have the same concussion or chance of coming in contact and massing together. Such cream requires a high churning temperature to soften the globules, so that with the lessened force and contact they may adhere to each other. Remedy: If the temperature has been low at starting, and if after churning over half an hour there is no sign of butter, pour the greater portion of the cream out into a can or pail, and set it in a vessel of warm water, stir constantly and raise the temperature of the cream eight or ten degrees and return it to the churn. This takes but a few minutes. Never add hot water directly to the cream. It melts the fat, curdles the casein and produces a pale colored, weak bodied butter with white specks of curd through it.

Cream Poor in Fat.

If this poor cream comes from pans or deep cans allow the milk to stand longer before skimming and remove the cream more carefully. If from a separator, adjust the screw to take a richer cream, and be careful no water or skim-milk runs into the cream can. Remember that cream poor in fat always means a serious loss of butter in the buttermilk.

Third.—Sometimes the butter breaks, but will not gather. It remains like fine hay seed or rounds up like small shot. This is due to one or more of four causes—cream poor in fat, cream cold, cows getting nothing but dry food and cows milking a long time.

The fat globules in strippers' milk are small and of a hard, tallowy nature, making a high churning temperature necessary. Sometimes there is present in such milk a viscous substance which prevents the massing of the globules. I have known many people to lose churning after churning from this cause. To scald such cream while it is sweet (heat it to 185 degrees) and then cool helps greatly.

A fresh cow coming into the herd has a marked effect in improving the churnability of the rest of the cream.

The dry, condensed feed of winter produces butter fat which has a melting point several degrees higher than the fat produced from the succulent green food of summer. This accounts for the necessarily higher churning temperature in winter. A judicious selection of foods materially helps the churning. Cottonseed cake, hay and straw tend to harden butter. Linseed cake, silage and roots have the opposite effect and make churning easier. Remedy: If there is no sign of the butter gathering after breaking, when you have churned for five minutes slowly or when on looking at the lid the granules appear to be rounding up, to churn longer without doing something is useless. Add two or three quarts of water several degrees warmer than the cream. The water dilutes the buttermilk and causes a better separation of the butter. Revolve the churn a few times, let stand a little while, then draw off about half of the buttermilk, straining it through a fine sieve or strainer to catch any particles of butter. The liquid thus reduced and the churning continued, the butter should soon gather into the required sized granules. In cases of very poor cream it may be necessary to reduce the buttermilk further.

Fourth.—Churning in a cold room will lower the temperature sufficiently to retard the coming of the butter. Remedy: Warm the cream as before described. Start with the cream warmer than usual under such conditions.

Fifth.—Very rich cream will thicken or "go to sleep" in the churn, and concussion ceases, or nearly so. Remedy: All that is necessary is to add water or skim-milk at churning temperature or a little lower to thin the cream, so that it can again fall in the churn.

Sixth.—The very slow revolving of the churn causes unnecessary delay in having the butter come. Remedy: Churn as fast as you can, so long as

you allow time for the cream to drop. The greater the speed the greater the force exerted on the fat globules.

Seventh.—Occasionally cream foams badly, almost filling the churn. Such cream is usually poor, cold and has present a gas producing ferment. Remedy: Sometimes a handful or two of salt and a little water at 70 or 80 degrees settle the foam. If this does not do remove part of the cream and raise the temperature about 10 degrees. In very stubborn cases, as a last resort, I have added almost as much water at about 70 degrees as I had cream, revolved the churn a few times, let stand several minutes, then drew off most of the liquid and, after churning a short time, have succeeded in getting butter. I have known cream to run over the cream crock like yeast. A yeast germ or some other gas producing organism was at work. In such a case pasteurize the sweet cream and thoroughly disinfect everything which comes in contact with the milk or cream.

When Butter Doesn't Come.

Eighth.—In rare cases in summer I have had churnings where butter would not come, and on examining the lid of the churn I could see minute shiny specks of oil, as if the butter fat were in a liquid form. Remedy: Adding several quarts of ice cold water has brought the butter in nice granular form. This difficulty is more likely to occur when the cows are on very soft, watery pasture. Rank green clover often makes difficult churnings for the same reason—lack of "body" in the milk fat.

Ninth.—When the butter color has been forgotten I have heard, "Oh, my; I didn't put in the butter color!" The mistake can be rectified, but it means more work. Weigh the salt required for the butter and drop over it the same amount of color as should have been added to the cream. With a thin bladed knife thoroughly mix the color into the salt and sift it over the butter. Proceed with the working as usual. The butter will seem in a hopeless condition. Allow it to stand for a while, then carefully work it until all the streaks of color disappear. I have added the butter color in this way, and the butter scored full for color.

Defects In Butter.

Light streaks or waves are due to the presence of buttermilk and an uneven distribution of the salt. Salt brightens the color, and where it does



ALFALFA SEEDLING SIX WEEKS OLD. [Alfalfa is well recommended by dairy experts as fodder for dairy cattle.]

not reach the butter is paler. This defect often results when the butter is soft and the working stopped before the salt is well distributed. It is better to overwork the butter than have the color uneven.

Mottles are usually caused by washing the butter with too cold water and chilling the outside surface of the granules or working it when very firm. There are portions of the butter in such cases that are not reached by the salt.

Undissolved salt results from not enough moisture in the butter to dissolve it or using very coarse salt or having it very cold and the butter firm.

Greasy, poor texture comes from churning at a high temperature, washing with too warm water, overworking or working with a sliding motion.

White specks are particles of hardened curd caused by having the cream too warm, too sour or not frequently and thoroughly stirred while ripening. Scrapings of dried cream or the crust of unstirred cream due to evaporation may cause white flakes in the butter.

Leaky, waterlogged butter is overcharged with moisture from high temperature in churning and washing, gathering the butter into lumps in the wash water and giving it but the minimum amount of working. The maximum amount of water allowed by law is 16 per cent. Butter usually has from 12 to 15 per cent.

Off flavors in butter may be traced to decayed or muddy food—weeds, turnips, etc., overripe cream, impure water, absorption of odors from the atmosphere in the stable or cellar or kitchen, contamination by dirt, sick cows, cows long in milk or keeping butter at too high a temperature or in insanitary surroundings.

Not much butter at the present time is put down for winter use. When the price gets low in summer and the milk supply in winter is scarce it is using foresight to pack a crock or two of butter. June and September are the best months for making butter for winter use. I prefer September, when the cows are on the aftermath and the extreme heat is past.

Extra care should be taken in handling the milk and ripening the cream.

Take Your Coupon Book

TO

The leading and enterprising firms with whom we have arranged to redeem Press Coupons. Their prices meet all competition.

HOFFMAN & ALLEN General Merchandise Main Street, Forest Grove	THE JACKSON PHARMACY Drugs and Medicines Cornelius
GOFF BROTHERS Hardware, Implements, Autos Pacific Avenue, Forest Grove	GOFF BROTHERS Hardware and Supplies Cornelius
GEO. G. PATERSON Furniture and Pianos Main Street, Forest Grove	A. S. HENDRICKS General Merchandise Cornelius
SHEARER & SON Jewelers Main Street, Forest Grove	GASTON DRUG STORE Drugs and Medicines Gaston
FOREST GROVE PHARMACY Pure Drugs and Medicines Pacific Avenue, Forest Grove	BRIGGS BROTHERS General Merchandise Dilley
SUN-RISE GROCERY Groceries and Provisions Pacific Avenue, Forest Grove	G. LUNDQUIST & CO. Hardware Cherry Grove
C. G. DANIELSON Bicycles and Sundries Pacific Avenue, Forest Grove	ERIC ANDERSON Jewelry and Drugs Cherry Grove
FOREST GROVE STUDIO Photos and Photo Supplies Forest Grove	FORSBERG & BROSTROM General Merchandise Cherry Grove
R. A. PHELPS White Palace Cafe Pacific Ave., Forest Grove	THE C. C. STORE Day Goods, Groceries, Shoes, Hardware Orengo
C. L. BUMP & CO. General Meachandise South Forest Grove	ORENCO DRUG CO. Drugs and Jewelry Orengo
MORTON & FREEMAN Groceries and Provisions Hillsboro	Wm. OELRICH Builders' Materials Orengo
J. A. HOFFMAN Jeweler Hillsboro	OREGON NURSERY CO. Wholesale and Retail Nursery Stock Orengo
THE DELTA DRUG STORE Drugs and Medicines Hillsboro	M. P. CADY General Merchandise Beaverton
PERCY LONG Hardware 2nd Street, Hillsboro	J. L. HARDY Confectionery and Patent Medicines Beaverton
MRS. M. L. BURDAN Millinery 2nd Street, Hillsboro	R. L. TUCKER Everything to Build With Beaverton
SAELEN & SPIESSEHEART Meat Market 2nd Street, Hillsboro	N. C. LILLY General Merchandise Gales Creek
A. C. DONELSON Furniture Hillsboro	E. J. AYERS General Merchandise Gales Creek
PEOPLES STORE General Merchandise Hillsboro	KINTON & JENSEN General Merchandise Banks
MRS. WINIFRED GUNTON Pope Photo Gallery Hillsboro, Oregon	BRODERICK & HUMBERG Blacksmith and General Repairing Forest Grove, Ore