



no. 197

Prepared By: Ruth M. Dawson Extension Nutritionist

EXTENSION SERVICE

NORTH DAKOTA AGRICULTURAL COLLEGE AND U.S. DEPARTMENT OF
AGRICULTURE COOPERATING
E.J. Haslerud, Director, Fargo, North Dakota
Distributed in furtherance of Acts of Congress of May 8 airy to 30,

# **USE LARD**



### What is wanted in a cooking fat?

It should be economical, keep well, be easily worked, either be bland or have a pleasing flavor, must be highly digestible and it should be versatile.

#### Does lard meet these requirements?

YES. It is satisfactory in every respect. Lard goes about 1/4 farther in shortening power than any other plastic fat.

Lard keeps well in a cool, dry place away from the air.

Lard is easily worked at many temperatures--creams best at 70°F. It works into pastry best when cold. It does not become brittle in the refrigerator.

Lard is a wholesome and natural fat having a mild, pleasing flavor when properly rendered and stored.

Lard is 97 percent digestible.

#### HOME RENDERING LARD

"Lard is composed of several fats, some of which break down readily and are oxidized by the oxygen in the air. These oxidized fats are responsible for the strong, disagreeable rancid flavor that sometimes is noticeable in stored lard and in smoked meats. When fats become rancid, their composition has been changed and sweetening them again is impossible. The only treatment for rancid lard is to prevent or delay development of rancidity."

#### Chill Immediately - Render Promptly

To make high-quality lard, do a clean job of dressing the animal, and keep the fat clean throughout the cutting and rendering process. Chill the dressed hog as quickly as possible, keep the fat trimmings <u>cold</u>, and render them <u>promptly</u>.

#### Separate Different Kinds of Fat

Leaf or kidney pork fat may be rendered separately from the bulk fat and used for special baking and drying purposes. This lard is harder and has excellent flavor and body. Intestinal fat is best used for soap. However, if it is to be used for lard, the fat must be run off from the intestines as soon as possible, washed and chilled in several changes of ice cold water, and stored in of Mm place.

## Preparing Fat For Rendering

Ground or finely cut fat trimmings will render more quickly and thoroughly than large pieces. A large kettle or pressure cooker may be used. If desired, a small quantity of water may be added to the kettle to keep the fat from burning. Start rendering with a slow fire and only a small amount of fat, so that it can be stirred easily and will melt without sticking and scorching. As the cracklings are completely rendered they will sink to the bottom and bubbling stops.

#### Avoid Burning

When rendering is about finished reduce the heat and stire the fat frequently so that particles of crackling will not scorch on the bottom of the kettle. A temperature of approximately 250 degrees is desirable for heating the rendered lard. Higher temperatures may cause smoking and speed-up the development of bad flavors.

## Strain and Store in Small Containers

Press the cracklings to squeeze out the lard. Strain the lard through cloth to remove small particles of cracklings. Permit the lard to cool sufficiently to prevent its breaking glass jars or crocks and package it in small containers such as 2-quart jars or 5 or 10-pound buckets. Fill the containers almost to the top and cover with a reasonably air-tight seal such as a jar top or pail cover. If these small packages of lard are put where they will chill promptly, the lard will be white and have a smooth grain. Store in a dark cool place.

Another advantage in packaging lard in small containers is that the lard will be consumed promptly before it has been exposed too long to the oxidizing air.

Soft and oily lard from hogs fed oil-rich feeds is just as wholesome and useful for shortening as firm lard.

## TREAT LARD TO KEEP LONGER

Home rendered lard can now be kept fresh and edible twice as long as formerly, simply by the addition of /drogenated vegetable shortening to the lard at the time it is being made. This kind of vegetable shortening is available in any g e 30, store

under a variety of trade names. The Department of Agriculture tests show that 2 or 3 pounds of hydrogenated vegetable shortening added to 50 pounds of lard during rendering will keep the lard fresh twice as long as untreated lard.

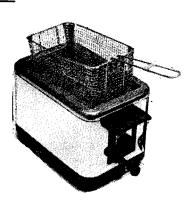
Lard Stabilizers - Chemical stabilizers are on the market under various trade names which serve as antioxidants and delay rancidity. They can be added to home rendered lard to increase the storage life of the lard.

### CAUSES FOR LARD NOT KEEPING

- 1. Fat partially rancid before rendering.
- 2. Fat from unfinished hogs.
- 3. Insufficient rendering to remove water in fat.
- 4. Overheating and sediment.
- 5. Poor containers, exposure to heat and light.
- 6. Too much stirring.
- 7. Musty and other objectionable odors in storage.
- 8. Storage at temperatures above 50°F.

#### FRYING FOODS

Frying is the process of cooking in hot fat, either in a small amount when food is said to be "pan-fried" or in a large amount when the food is said to be "deep fat fried" or "French fried". Pan frying is done in a shallow frying pan while deep fat frying is done in a deep kettle or container. The kind of fat used may be the same for both.



#### DEEP FAT FRYING

Today the successful frying container is of fairly light weight metal and automatically controlled by electricity. Although it is very convenient to have special equipment for deep fat frying, it is not necessary. The deep frying kettle of aluminum or iron with a frying basket will turn out excellent fried food if used with care.

A frying thermometer that clamps onto the side of the kettle will insure the correct temperature for frying and remove all guess work. However, when a thermometer is not available, use the bread test.

the ler-:eep

the This fat ard, ble,

and

ed in

out

d,

st-

at

ome

ing

own .iz-

 $\operatorname{cid}$ 

:ed een :at-

οf

The Bread Test - Use cubes of day-old bread, drop one cube into the hot fat and count the time required to bring it to a golden brown. If it takes too long or the bread browns too quickly, adjust the flame or heating element and re-test.

Temperature of fat Will brow	wn a cube c	of bread in:
365° - 375° 375° - 385° 385° - 395°	60 seconds 40 seconds 20 seconds	3 5
TIME AND TEMPERATURE GUIDE	FOR FRYIN	NG FOOD
Foods Tempe	rature	Minutes
Doughnuts 375°	- 375° F.	3-5
Chicken Broilers Pre-Cooked	375° F. 375° F.	7-10 4-5
·	- 385° F.	3-5
Fish Fillets 365°	- 375° F. - 375° F.	3-5 3-5
Ovsters 365°	- 385° F. - 375° F.	2-3 1
Potatoes (1/2 inch strip)385° French Fries 375°	- 385° F.	5-10 5

## HERE'S HOW - POINTERS FOR FRYING FOODS

- 1. Do not fill the container or kettle over half full with fat. Use enough fat to cover the food.
- 2. Heat the fat slowly to the desired temperature and watch to see that the fat does not get too hot. Never let fat smoke. If it smokes do not use it.
- 3. Check the temperature before adding each lot of food.
- 4. Wipe moist foods such as potatoes in a clean towel. To much moisture changing to steam in the hot fat may cause spattering and over-flowing.
- 5. Let refrigerated foods come to room temperature before frying them.
- 6. Put food into frying basket. Lower into hot fat. Use only enough food at one time to cover the bottom of the basket, or the fat may bubble over the sides.
- 7. Try to keep fat at an even temperature while cooking the food. Because potatoes and other moist foods reduce the temperature of the fat, the heat needs to be turned higher after they are added.

- 8. Turn foods for even browning. For doughnuts turn them as soon as they float to the top of the fat.
- 9. Drain fried food well on absorbent paper.
- 10. Do not stack hot fried foods or they may become limp.

## WHAT TO USE FOR COATING FOODS FOR FRYING

Milk and flour; Crumbs - (dry bread, crackers, packaged coatings or crushed flaked cereals); Batter - 1 egg, 3/4 c.milk 1 c. flour, 1/2 tsp. salt, 1/8 tsp. pepper (if desired).

# WHY FOODS ABSORB FAT WHEN DEEP FAT FRIED

- 1. A poor recipe too rich in fat. Food containing to much shortening tend to take up more fat during frying.
- 2. Too soft a batter. Soft batters also tend to take up fat. Correct proportions are important.
- 3. Too low a temperature during cooking. Lowering too much cool food into the fat at one time does not allow a crust to form immediately and fat absorption follows.
- 4. Too much leavening. Food becomes spongy and fat penetrates the surface. One tsp. of baking powder per cup of all-purpose flour is a good proportion for fried doughs.

## CARE OF FAT AFTER FRYING

This fat may be re-used. Cool fat slightly and strain through clean cheese cloth or muslin. Then store covered in a cool place.

Fat that has been taken care of properly may be used for frying onions one day and the next day for frying doughnuts. The flavor and odor of the foods cooked do not remain in the fat.

To Clarify Fat - Place slices of raw potato in the cold fat and heat gradually. The heat causes the water in the potato to be driven off in the form of steam carrying with it absorbed odors and flavors. Heat until bubbling ceases and potato is brown. Drain and discard the potato.

### REFERENCES FROM:

National Livestock and Meat Board, American Meat Institute, Mabel Nelson and Belle Lowes Experiment Work, Ames, Ia.; K. F. Warner, Extension Meat Specialist; R. W. Riemenschneider, W.C. Ault, P.S. Wells, Regional Eastern Research Laboratory; P.A. Anderson, Univ of Minnesota.