

# Types of Dry Milks

## Buying Dry Milk Products

**NONFAT (skim):** This is pasteurized skim milk reduced to a powdered concentrate. It can be found in two forms, regular and instant. They are both made from milk in a spray-drying process, but the instant variety has been given further processing to make it more easily soluble in water than regular dry milk. Both types have the same nutrient composition. The regular variety is more compact and requires less storage space than the instantized variety, but it is more difficult to reconstitute. The most easily found variety is the instant, available in nearly any grocery store. The regular variety has to be sought out from baking and restaurant suppliers and storage food dealers. There is a retail brand by the name of "Milkman" that has a bit of fat content that makes it similar to 1% milk. The fat content means it should be stored like whole milk, described below.

It takes 3.2 oz or about 3 tablespoons of instant nonfat dry milk added to 32 oz of water to make 1 quart of milk you can drink or cook with just like fresh milk. Combining the dry milk with water at least several hours before you plan to use it gives it time to dissolve fully and to develop a fresher flavor. Shaking the fluid milk vigorously will incorporate air and will also help to improve flavor. Add the powder to baked goods, gravies, smoothies, hot cereals, casseroles and meat loaf as a nutrition booster. It can also be used to make yogurt, cheese and most any cultured dairy product that does not require a high fat content.

**FLAVORED NONFAT:** This may be found packaged in a variety of forms from a low calorie diet drink (artificially sweetened) to the other end of the scale, as cocoa mix or malted milk. The key ingredient is the dry milk so buy and store these products accordingly.

**WHOLE MILK:** This is whole dry milk with all of its fat content and therefore has a shorter shelf life than nonfat. Other than that, it may be reconstituted and used in exactly the same way as nonfat dry milk. Dry whole milk is not often found in retail stores, but many storage food suppliers carry it as well as institutional and restaurant foods businesses. It can also sometimes be found where camping and outback supplies are sold.

**BUTTERMILK:** Dry buttermilk is for use in recipes calling for buttermilk. It can be reconstituted into liquid buttermilk, but it's not much like the fresh liquid product and is best used in baked goods. Since it has a slightly higher fat content than nonfat dry milk, it generally does not keep as long.

**MILK SUBSTITUTES:** There are a number of products on the market that purport to take the place of regular milk. They range from soy "milk", rice or other grain "milks", and beverages based on milk components such as whey. If there is not a substantial fat content they may all be stored as you would nonfat dry milk. Those products with a significant fat content (above 1% by weight) should be stored as you would whole dry

milk. Do keep in mind that nearly all of these products DO NOT have the same nutritional composition as either nonfat or whole milk. In storage food programs dairy products serve as important sources of high quality complete proteins, calcium, vitamin D and possibly vitamin A. If the milk substitute you're storing does not you'll need to find another adequate source of these important nutrients.

### **B.1.1 BUYING DRY MILK PRODUCTS**

**(a)**- Be sure the dry milk you are buying has been fortified with vitamins A and D. All of the nonfat dry milks I've seen come fortified with these two vitamins. The dry buttermilk does not come this way, at least the SACO brand does not. I don't know if the dry whole milk is or not. The flavored dry milks vary by manufacturer.

**(b)**- There should be no artificial colors or flavors. I believe it is illegal to add preservatives to any dry milk sold in the U.S. so a claim of "no preservatives" on the label is of no consequence. Other nations may be different, however.

**(c)**- "Extra Grade" on the label indicates the manufacturer has held to higher processing and quality standards and the milk is somewhat lower in fat, moisture and bacterial content, is more soluble, and has fewer scorched particles.

There are still some manufacturers of dry milk that sell ordinary Grade A product, but they are becoming fewer. Every brand of instant powdered milk in my local grocery store is the Extra Grade, even the generic store brand. This, too, may vary outside of the States.

**(d)**- If you'll be buying your milk in bulk from businesses such as restaurant and institutional foods suppliers be sure to specify "low-temperature spray process" dry milk. The high- temperature process dry milks will not give you a very desirable product.

**(e)**- Try to buy your dried milk in containers of a size that makes sense for the level of consumption in the household. Once it is opened, powdered milk has a short shelf life before undesirable changes in flavor and nutrient content occurs. If you buy large packages and do not use much at one time, consider breaking it down and repackaging into smaller containers at the time of purchase.

**(f)**- As with any storage food you buy, try to deal only with reputable dealers. It is particularly important to do this with dry milk because of its short shelf life and sensitivity to storage conditions. Check expiration dates, then date and rotate packages.

<http://waltonfeed.com/grain/faqs/iib1.html>

sources about .50 \$/lb  
[http://bulkfoods.com/milk\\_powder.htm](http://bulkfoods.com/milk_powder.htm)