

# Tailor-Making Milk To Fit The Market

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NEWARK, Del. — Over the past 20 years dairy farmers, dairy researchers and extension workers have been enormously successful in the art and science of producing more milk from the same cow. So successful that on the marketing end we've now fallen behind. Our supply of milk far exceeds demand.

And yet today's grocery shelves carry an almost bewildering selection of milks catering to the different needs of different people.

There's whole milk, 2 percent (fat) milk, skim milk, buttermilk, low sodium milk, lactase reinforced milk, ultra high pasteurized (or sterilized) milk, regular pasteurized milk, evaporated milk and homogenized milk. Depending on where you live, you can also buy cream-line milk, all-Jersey milk, Golden-Guernsey milk, goat milk or certified raw milk. There's even perfectly good milk sold under such names as "sip-up," "farm-fresh" and UHT.

Obviously, processors are tailor-making milk to meet many different consumer demands. Can

dairy farmers do some of this tailoring themselves and benefit financially from it?

Why not? Years ago, during the days of door-to-door delivery of milk, it was not uncommon for customers to request special milk. Golden-Guernsey was widely appreciated despite its extra price. All-Jersey milk is still available in a few areas. However, shopping centers now offer cheaper food than door-to-door delivery, and low-fat and homogenized milks have replaced most of the specialty milks.

Nevertheless, there's been a resurgence of interest lately in special milk traits — more protein, more solids, fuller taste (other than that due to milk fat) and more cheese-yield value.

Some U.S. areas with strong cheese processing industries are even willing to pay extra for

protein and solids differences in farm milk. And bulls with protein proof and cows with higher protein test are attracting the interest of AI studs. So we're seeing more of the kind of research conducted here at the University of Delaware years ago on factors influencing milk composition and subsequent cheesemaking characteristics.

Cow, sheep and goat milks differ widely in protein, casein, calcium and fat content — a fact widely used in countries such as England, France, Norway, Italy and Greece where cheeses from sheep and goat milk are popular and profitable. Generally sheep milk has more solids than cow milk, and goat milk has a softer curd.

From the same volume of milk, cheddar cheese yields are greatest from Jersey cow's milk and lowest from Holstein milk. Curd firmness, which is important for making

some cheeses, may follow the same differences because of the higher casein levels in Jersey milk. When producing soft cheese, on the other hand, less curd firmness may be desirable. A softer curd may also make milk, yogurt and cheeses easier to digest. This has significance for children, as well as calves, for optimum nutrition and prevention of diarrhea.

Research at the University of Delaware and elsewhere has shown that genetic variants of casein are the principle reasons for differences in curd firmness. Cows with the B or AB variants of kappa-casein produce milk with a firmer curd. The B variant also makes better textured Parmesan cheese. Beta and alpha-casein variants alter other cheesemaking properties.

## Weekly Summary

Harrisburg, PA  
Friday, Nov. 28

Report supplied by PDA  
13 Livestock Markets

**CATTLE: 4366.** Compared with 6912 head last week and 3901 head a year ago. Sl. steers uneven, mostly steady to 1.00; spots to 2.00 higher; sl. heifers steady to 1.00 higher; sl. cows mostly steady to 1.00 higher; sl. bullocks small supply steady to strong; sl. bulls uneven; High Choice & Prime No. 2-4 sl. steers 66.75-68.50; Choice 59.00-66.00; Good 54.00-59.50; Standard 45.00-50.00; Choice sl. heifers 53.50-60.50; Good 48.00-55.50; Standard 40.00-49.00; Breaking Utility & Commercial sl. cows 36.00-39.75, few to 40.50; Cutter & Boning Utility 33.00-37.50; Canner & Low Cutter 30.75-34.50, some down to 27.00; shells down to 20.00; few Choice sl. bullocks 51.75-53.50; few Good 48.00-52.25; few Standard 45.00-47.50; YG No. 1, 1000-2200 lb. sl. bulls 43.00-49.50, few to 52.75; YG No. 2, 900-1500 lb. 38.00-43.00.

**FEEDER CATTLE:** Large Frame No. 1, 400-600 lb. feeder steers 52.00-66.50; Med. Frame No. 1, 300-700 lb. 50.00-60.50; Med. Frame No. 2, 300-600 lb. 45.00-52.00; heifers Med. Frame No. 1, 300-600 lb. 40.00-51.00; Med. Frame No. 2, 300-700 lb. 34.00-45.00; bulls Med. Frame No. 1, 300-650 lb. 43.00-55.00.

**CALVES: 3002.** Compared with 4051 head last week and 2922 head a year ago. Vealers steady to 2.00 lower; few Choice 80.00-90.00; Good 55.00-75.00; Standard & Good 110-130 lb. 45.00-55.00; 90-110 lb.

44.00-52.00; 65-85 lb. 35.00-45.00; Utility 50-100 lb. 25.00-38.00, some down to 12.00.

**FARM CALVES:** Hol. bulls 90-130 lb. 46.00-109.00, mostly 70.00-95.00; hol. heifers 90-135 lb. 47.00-57.00, few to 95.00.

**HOGS: 4439.** Compared with 5317 head last week and 4856 head a year ago. Barrows & gilts steady to .50; spots 1.00 higher; US No. 1-2, 210-245 lb. barrows & gilts 54.00-56.75; No. 1-3, 220-250 lb. 53.00-55.50; No. 2-3, 215-265 lb. 51.50-55.00; No. 2-4, 225-285 lb. 50.00-54.00; No. 1-3, 140-200 lb. 44.00-51.50; sows mostly steady; US No. 1-3, 300-500 lb. 43.00-46.50; 500-650 lb. 45.00-51.00; No. 2-3, 300-700 lb. 39.00-44.00; boars 38.00-42.00, few to 44.50.

**FEEDER PIGS: 1125.** Compared with 1247 head last week and 981 head a year ago. Unevenly steady; US No. 1-3, 20-35 lb. 26.00-36.50; 35-50 lb. 33.00-48.00; 50-85 lb. 43.00-62.50.

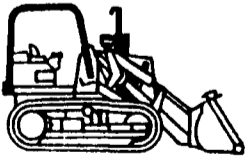
**SHEEP: 579.** Compared with 1232 head last week and 768 head a year ago. Woolled sl. lambs steady to 5.00 higher; High Choice & Prime 80-125 lb. 65.00-73.50; Choice 70-100 lb. 60.00-70.00; Good 60-100 lb. 50.00-60.00; Good & Choice 50-85 lb. feeder lambs 62.00-74.00; sl. sheep 15.00-31.00.

**2 GRADED FEEDER PIG SALES: 2268.** Compared with 2480 head last week and 1293 head a year ago. Highly uneven; US No. 1-2, 20-30 lb. 90.00-112.00; 30-40 lb. 125.00-156.00; 40-50 lb. 110.00-140.00; 50-60 lb. 95.00-134.00; 60-75 lb. 85.00-122.00.

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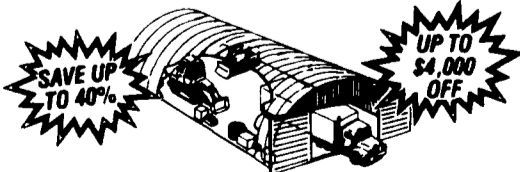
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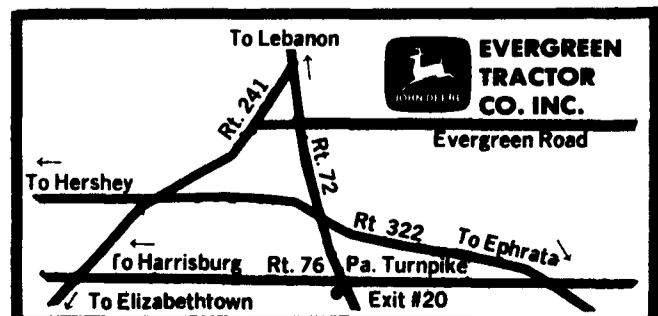
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