

Leaner animals is continuing beef trend

UNIVERSITY PARK — Beef cattle grown with less fat than 15 to 20 years ago — setting a trend in the U.S. — are the result of consumer demand for lean beef.

Such leaner beef is produced with changes in breeding, feeding, and management, according to Lowell L. Wilson, animal scientist at Penn State.

Reviewing changes in the beef cattle industry, Wilson said the first shift to leaner beef came about with widespread use of imported beef cattle breeds that are larger and leaner than the typical English breeds common in the U.S. — Angus, Hereford, and Shorthorn. The imported large breeds, mostly from Europe, include Charolais, Chianina, Limousin, and Simmental.

Wilson claimed the larger European breeds have not replaced the traditional English breeds — and probably will not. The imported leaner cattle can be slaughtered at weights comparable to those of the English breeds. At the same time, the European breeds contain less outside "trim" fat, and usually less marbling or fat within the meat.

According to John H. Ziegler, food scientist at Penn State, "there is a critical balance between the amount of fat contained in lean meat — to assure acceptable flavor and tenderness — and still not result in excessively large amounts of fat trim."

"In addition, beef cattle breeders are selecting — with traditional English breeds — for increased growth and leanness," Dr. Ziegler added.

Another change cited by Wilson was the use of less feed grains — as well as increased use of pastures, hays, and other forages — and especially increased use of corn silage. He described corn silage as

a whole-plant product, harvested before the grain is mature.

"By harvesting the entire plant as corn silage, everything is used for feeding cattle rather than just the corn grain," he pointed out. "This is important since corn grain has other uses including direct feeding to human beings in some countries. Grain is also used as feed for other livestock, as well as poultry, and even to produce alcohol-fuel," Wilson added.

Beef cattle farmers also use a large proportion of waste products from other agricultural industries such as fruit and vegetable pulp from canning factories. In addition, farmers raise beef cattle on some 900 million U.S. acres that are too hilly, rocky, droughty, or otherwise unproductive for intensive grain production.

Pastures on such marginal land can provide excellent grazing, it was noted, since beef cattle seldom receive grain until they weigh 700 pounds and enter a finishing period when corn silage is used widely.

In general, it is not economical to feed as much grain to beef cattle as farmers did 15 to 20 years ago. A typical feeding change is that used by J. Paul Espy of R1., Tyrone, president of the Pennsylvania Beef Council and a cattle feeder in Huntingdon County.

"Over the past 10 years," said Espy, "I have used more and more corn silage, hay crop silage, and less total grain. Cattle rations have used maximum amounts of silage, since corn silage also produces maximum yields of beef per acre. This, in turn, helps to control our cost of cattle weight gains and increases the amount of production from the farm."

Another change in management finds some beef cattle being slaughtered at slightly lighter weights than many years ago. This tends to decrease the amount of fat in beef carcasses and in retail cuts, Dr. Ziegler stated.

Slaughtered at lighted weights has come about with slight changes in quality grade which tend to favor carcasses from younger cattle. This allows cattlemen to "custom-finish" the feeding of animals for a wide variety of consumer likes and dislikes for size of cuts, weight, and fat content.

More information about changes in the beef cattle industry, and consequences for both the consumer and the farmers, can be obtained from Lowell L. Wilson, Department of Dairy and Animal Science, or John H. Ziegler, Department of Food Science, both at University Park, PA 16802.

No-till demo in N.J.

WASHINGTON, N.J. — The Cooperative Extension Service and the Soil Conservation District are sponsoring a No-Till Seminar next Saturday beginning at 10:30 a.m. The program will be held at Pinehill Farms, located on Route 31 one mile south of Washington, N.J.

The seminar is being conducted to demonstrate the versatility and advantage of no-till planting.

Through the use of this cultural practice, farmers will be able to reduce soil erosion, conserve energy and develop a better conservation program for their farm.

The program will include the review of plots planted with oats, alfalfa, soybeans, and sudax. Weed specialist John Meade and entomologist Stuart Race will critique the plantings for weed and

DAIRY FEEDING TIPS

Beating Summer's Heat

A dairyman milking on a hot, sweltering day not only has to fight the sweat dripping from his brow but a reduction in his herd's efficiency.

Hot summer weather brings several production problems in dairy herds, says Dr. R.W. Stanley, chairman of the animal science department at the University of Hawaii. Dr. Stanley's studies have shown that dairy cattle consume less roughage and produce less milk and butterfat when temperatures soar above 80 degrees.

Although Hawaii is blanketed by 80-degree temperatures all year, dairy herds in midwestern and northeastern states lose production during summer's hot, humid days, Dr. Stanley says.

Research has shown that acid builds up in rumens of cows subjected to these conditions, reducing appetites and feed efficiency, he explains.

Digestive acids are normally neutralized by sodium bicarbonate, a natural part of

cows' saliva. But in hot weather, additional sodium bicarbonate may be needed to keep rumen acids in balance. "Under high heat conditions we can modify the ration by feeding sodium bicarbonate to enhance fat test and get a more efficient animal," says Dr. Stanley.

In a study by Dr. Stanley and Dr. L. Kung of the University of Hawaii, cows fed sodium bicarbonate gave almost a pound more milk per cow daily. Butterfat tests were higher, too. Cows also rid themselves of excess body fat and were more feed efficient than those without sodium bicarbonate.

The ration dairy cows receive — and how much is fed — determines the amount of supplemental sodium bicarbonate necessary to insure optimum production in hot weather, Dr. Stanley says.

Maintaining ration fiber levels during high temperature periods will also keep butterfat tests from dropping, he concludes.

insect problems. They will be making control recommendations and answering any pertinent questions.

Also included in the program will be equipment demonstrations using a no-till drill. The plots have received different herbicide treatments and the manufacturers of

the products used will be present to answer any questions.

This will be an informative program and any interested individual is invited to attend. For more information, contact the Cooperative Extension Office, Court House, Belvidere, 201-475-5361, Ext. 133.

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