Dairy field trials show bicarb benefit



California dairy farmer Bernard Teunissen, left, and Dr. Ken Cummings, Church & Dwight, discovered that the Teunissen herd responded well to the addition of six ounces of bicarb per head daily, as demonstrated by a University of California-Davis trial.

trials at two California dairy operations show that sodium bicarbonate can result in increased milk production when fed in rations based on alfalfa.

According to Dr. Don Bath, extension dairy nutritionist at the University of California-Davis, milk production at one herd improved by about 1,000 pounds per lactation when sodium bicarbonate was fed at 0.8 percent of the total dry matter. That was at BJ Dairy, owned by Bernard Teunissen of Corona, California.

Over a 305-day lactation, first lactation cows in the Teunissen herd averaged 17,000 pounds of milk with bicarb and 16,500 pounds of milk wihtout the buffer. Second lactation cows produced an average 19,400 pounds with bicarb and 18,400 pounds without.

Cows with three or more lactations showed the greatest bicarb benefit. These averaged 21,000 pounds of milk with bicarb and

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At another dairy, 6T Ranch of Madera, milk production with bicarb improved only with first lactation animals, Bath says. Milk production from older cows fed bicarb was less than the controls.

The nutritionist attributes the varying response to differences in feeding and management at each location. The ration fed to the Teunissen herd was higher in energy and lower in fiber than the ration fed at 6T Ranch. And, cows in the Teunissen herd were likely under more stress due to higher average milk production and three-times-a-day milking.

"The combination of higher milk production, three-times-a-day milking and higher energy, lower fiber ration would be expected to cause a situation where sodium bicarbonate would have a beneficial effect," Bath explains.

Feeding sodium bicarbonate did pay off, based on the results at BJ

BROOKFIELD, Wisc. — Field 19,200 pounds without the added per cow per day, or about \$18 over a 305-day lactation. The extra 1,000 pounds of milk gained per lactation added \$120 in income per cow (with a \$12/cwt milk price). So, every dollar spent on sodium bicarbonate returned an additional \$6 in milk income.

"Generally, a two percent increase in milk production will pay for bicarb feeding," points out Nyles Peterson, University of California dairy extension agent in San Bernadino County, who assisted with the trial at BJ Dairy.

"Our research shows that sodium bicarbonate can be beneficial with alfalfa rations, especially where high levels of concentrates are fed and cows are being pushed for high production.

"In the past, we've always thought a dairyman needed sodium bicarbonate only if he had low fat tests or acid-base imbalance, but with this research,

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