Dairy/Livestock

Dairy barns adapting to change

By LON TONNESON

NEW SHAPe: The profile that Providence Dairy’s hoop barn cuts against the horizon makes it stand out. The barn is 110 feet wide, 600 feet long and 53 feet tall and houses 500 cows.

Hoop housing

At Providence Dairy, White, S.D., a 110-foot-wide by 600-foot-long Coverall freestall hoop barn houses 500 cows. The barn cost approximately 10% more than a freestall barn, but was worth the extra money, according to Wielie Vandermeer, who operates the dairy with her husband, Sako. The white fabric lets in so much light that it’s as if the cows are outside, but still protected from weather extremes. Unlike steel roofs, the fabric roof doesn’t transfer heat or cold. The Vandermeers added 60 feet to the hoop barn last summer. When they expand further, they plan to build another hoop barn.

FRESH AIR: Wielie Vandermeer, speaking during a tour of their dairy, praises the hoop barn environment.

Almost air conditioned

The cross-ventilated barn at Drumgoon Dairies, Lake Norden, S.D., is 300 feet wide by 500 feet long, is completely enclosed and has a nearly flat roof. The ventilation system creates a 3 to 5 mph flow of water-cooled air through the barn. On the day of the Central Plains Dairy Tour, it was 90 degrees outside the barn. Inside, the temperature was only 75 degrees.

At the Central Plains Dairy Association’s tour of farms in the Watertown, S.D., area.

Cooling the air by about 10 degrees F.

Compost barns

Norswiss Dairy, Summit, S.D., houses approximately 100 close-up cows in a 100- by 260-foot hoop compost barn. The naturally ventilated hoop building keeps the cows out of the weather, and the compost pack is more comfortable for them to stand and lay on than concrete and mattresses or bedding. Owners John and Annelies Sefroidt are using straw as the organic material for the compost. They chop the straw into short pieces, about 2 inches or less in length, and store it in silage bags. They spread the straw with a payloader and rototill it daily. Rototilling aerates the pack and keeps the compost processing going. Composting reduces the volume of manure by a factor of four and makes the nutrients in the manure more readily available to the plants after it is applied to a field.

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