

Hot Weather May Call For Dairy Cow Ration Changes

GERALD J. McCAMMON
4-H Youth Coordinator
UNIVERSITY PARK (Centre Co.) — As summer brings longer days and higher temperatures, dairy producers should adjust herd feeding practices to ease the effects of heat stress on feed intake, said an expert in Penn State's College of Agricultural Sciences.

"Cows begin to eat less when temperatures rise above 80 degrees Fahrenheit," said Virginia Ishler, extension assistant in dairy and animal science. "During the summer, producers can keep feed intake higher by maximizing cow comfort."

Helping cows stay cool will help them maintain their appetite. "Keep cows inside during the day if it is cooler for them. Make sure they have adequate shade over feeding areas and while out on pasture."

As temperatures rise, ventilation in animal facilities becomes more important. "Make sure that all barn fans are working properly," Ishler said. "Keep air moving through holding areas. If feasible, reduce the number of cows entering a holding area at one time."

Providing the majority of the ration during cooler times of the day will ensure that your cows have feed when they're most likely to eat. "For example, feed between 4 and 6 a.m. and 9 to 11 p.m.," Ishler said.

High-moisture ingredients such as corn silage, hay-crop forage and high-moisture grains will heat if left sitting around during the day. "Feeding ensiled items more frequently will prevent this and help your herd maintain feed intake."

Prepare total mixed rations (TMR's) immediately before

feeding. "Don't keep mixed feed in the mixer wagon during the day," Ishler said. "This will shorten the bunk life of the TMR. The same concept holds true for high-moisture grains, which should not sit in a feed cart for more than one or two hours."

To compensate for lower feed intakes, boost the energy and nutrient density of the ration per unit of dry matter consumed. "You can do this by increasing concentrate dry matter in the ration," Ishler said. "But keep enough effective fiber in the ration to promote normal rumen function."

Cows may tolerate lower levels of forage neutral detergent fiber — .80 to .90 percent of body weight — for brief periods, but don't let forage dry matter intake fall below 1.5 percent of body weight. Offering aftermath cuttings of hay or hay-crop forages and whole-plant corn silage also helps to optimize feed intake in hot weather.

Adding supplemental fat can increase the energy density of the ration. "The total dietary fat content in the ration dry matter should not exceed 5 percent when oilseed ingredients are fed," said Ishler. "Rumen-protected or rumen-inert fat sources can provide additional energy, resulting in a dietary fat content of 6 to 7 percent. But cost-effectiveness depends on the level of milk production, the herd's average stage of lactation and the body condition of the cows."

Maintaining proper protein ratios during the summer also is important. "Rumen undegradable protein should make up 36 to 39 percent of the total crude protein for cows in early lactation," she said. "Soluble protein should constitute 30 to 34 percent of the total

crude protein."

Boosting levels of certain minerals will help milk cows compensate for higher nutrient losses during hot, humid weather. "On a dry matter basis, potassium should range between 1.4 and 1.5 percent

of the ration," Ishler said. "Sodium can make up .45 to .55 percent, magnesium .30 to .35 percent and salt .50 percent of the ration. Chlorine should range between .25 and .30 percent of the ration dry matter."

The bottom line for managing dairy cattle during summer is to keep them comfortable, Ishler said. "Take steps to keep cows productive by reducing heat stress and making any necessary dietary adjustments."

World Expo Announces Recognition Winners

MADISON, Wis. — Every year, World Dairy Expo recognizes four individuals for their outstanding contributions to the dairy industry. These exceptional people have been selected for their achievements, participation, and leadership in both dairy and community activities.

In addition to Joyce Bupp, who is featured in this issue, this year's World Dairy Expo Recognition Award winners are:

- Clarence Boyke, Dairyman of the Year. Boyke's Vir-Clar Farms, near Fond du Lac, Wis., covers 325 acres and is home to 250 dairy cattle. His registered Holstein herd carries a BAA of 107.9 and a herd average of 22,487 pounds of milk. Thirty-nine cows from Boyke's farm have produced more than 30,000 pounds of milk and two have surpassed 40,000 pounds. Boyke has been a 4-H dairy leader for more than 20 years and is currently president of the Fond du Lac county fair board. In addition, Boyke has served as a board member for his county DHIA, district 7-B AMPI, the East Central Breeders Cooperative, and Select Sires.
- Doug Wilson, Industry Person

World Expo Premium Book Available

MADISON, Wis. — The premium book for the 1993 World Dairy Expo is available. The premium book lists the classes, prizes, and sales for the six dairy shows and the rules and regulations for each class.

In addition, it gives a brief description and schedule for all dairy events at World Dairy Expo, Sept. 29 to Oct. 3, at the Dane County Expo Center, Madison, Wis.

This year's premium book is sponsored by Pfizer U.S. Animal Health. To obtain a copy, contact World Dairy Expo, 122 E. Olin Ave., Madison, WI 53713, (608) 251-3976.

of the Year. Wilson is the chief executive officer of 21st Century Genetics. He was instrumental in implementing and developing the country's first computer-operated mating system. Wilson also led the committee that first designed linear scoring for dairy cattle. He is currently completing his third term as president of the National Association of Animal Breeders. Wilson serves on many advisory committees and has participated in numerous genetic seminars.

- Verghese Kurien, International Person of the Year. Kurien, from Calicut, India, is chairman of India's National Dairy Development Board. Kurien established a cooperative system in India that produces, processes, and markets

milk from dairy farms in India. This program, called "Operation Flood," reaches nearly 170 million milk producers and consumers throughout India and is the largest agricultural development program in the world. Kurien is currently a member of India's Central Advisory Council on Trade for the Ministry of Commerce and serves on the Executive Committee of the International Dairy Federation for the Government of India. He was also the 1989 recipient of the World Food Prize and many other prestigious awards in India.

For more information, contact Cara Doyle, World Dairy Expo, 122 East Olin Ave., Suite 270, Madison, WI, 53713, (608) 251-3976.

World Dairy Expo To Showcase Best Dairy Cows In World

MADISON, Wis. — Mark your calendars now for the 1993 World Dairy Expo, Sept. 29 through Oct. 2. Expo will showcase the best dairy cattle in the world.

More than 2,000 dairy animals will crowd into the Dane County Exposition Center in Madison, Wis., making World Dairy Expo one of the largest dairy shows in the world.

More than 63,000 people from around the world are expected to attend this year's show. In addition to the dairy cattle shows, World Dairy Expo offers more than 600 commercial exhibits, educational workshops, and crafts. Cash flow, estate planning, and a youth careers workshop highlight the Educational Forum.

This year, World Dairy Expo is sporting a Greek theme. The show ring will be decorated with grecian urns, fig trees, water fountains, and marble columns.

World Dairy Expo culminates Oct. 3 with the Parade of Champions and the selection of America's supreme champion cow.

For more information, contact Cara Doyle, Media and Marketing Manager, World Dairy Expo, Inc., 122 East Olin Ave., Suite 270, Madison, WI 53713, (608) 251-3976.

Joyce Bupp

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laugh instead of worry.

It's these qualities that have enabled Joyce to love farming and share that love with others.

John D. Cope, on several dairy industry boards, said, "In my 40 years of involvement in the dairy industry and from my perspective as a producer, breeder, and industry related boards, I can recall few women who have achieved the level of distinction and positive influence on our industry that Joyce has."

Joyce will officially be presented the "Dairy Woman of the Year" award during the World Dairy Expo, held in Madison, Wis. on Sept. 29-Oct. 3.

Sustainable Ag Field Day Set For Juniata Farm

MILLHEIM (Centre Co.) — A field day demonstration and seminar on practical sustainable agriculture techniques has been scheduled for August 6 at the Ed and Lorraine Rits farm, in Honey Grove.

According to a news release, a number of the state's top authorities on sustainable agriculture procedures are to explain the definition of "sustainable agriculture" and techniques which can help achieve it.

A fee of \$5 per person covers the cost of the lunch and helps with costs of the field day. The event is

sponsored by the Pennsylvania Association for Sustainable Agriculture (PASA), American Farmland Trust (AFT), and Penn State University Cooperative Extension Service.

Scheduled to be present are Tim Bowser, executive director of PASA, Lamonte Garber, agricultural policy specialist for the Chesapeake Bay Foundation, and Bryan Petrucci, director of Sustainable Agriculture Programs of the AFT.

According to the release, host farm owner Ed Rits is to explain (Turn to Page A35)

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