More Milk From Younger Cows

BY
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NEWARK, DE. — The average age of our dairy cows 10 years ago was 54 months, and the average Delaware Holstein DHIA cow produced 14,952 pounds of milk per year. Today, the average age of our cows is 48 months, while average production is at 17,907 pounds of milk. We have increased milk per cow by 20 percent, but our cows are 12 percent younger. And 48 months is pretty young, considering that we do not get the first drop of milk until our cows are 27 months old in average. This leaves us an average production time of 21 months, or only slightly more than two lactations of 305 days each.

During these 21 months our cows are expected to pay back the 27 months of being raised as herd replacements, in addition to making us a profit! Are these last 10 years part of a trend? If we further succeed in more milk per cow, at the same time will we suffer further declines in average age? Where is the cutoff point where it will be uneconomical to milk cows because they leave the herd before they could pay back the costs of replacement and make a profit in addition? And this assumes that we will have 10 months lactation within the 21 months of production, which is not the case. The average calving interval is at 13.9 months, or almost 2 months beyond the ideal 305-day lactation length.

What this means is that our cows are, more often than we like it, reproductive failures after calving. Theoretically, they should be able to conceive for the next lactation between 30 to 60 days after calving. But our average days "open," that is before conceiving again, are 130 days!

Is this part and reason of the trend to younger cows in our herds? Is this reproductive failure causing cows to leave the herd before they can make a profit? Is this due in part to the increasing demand and stress of higher milk per cow, year after year?

Many people in the dairy industry, especially in the veterinary portion, think so. Thus, does that mean that eventually our cows will concentrate their resources physiologically and nutritionally on milk production so much that they have none left for reproduction? When, then do we get our future herd replacements, if our cows become worse reproductive failures year after year?

Should we not start rethinking our breeding program in the face of these facts? As dairy farmers, dairy geneticists, dairy nutritionist and artificial insemination stud managers, we have been extremely successful in concentrating on one goal: more milk per cow. We have proven that concentrating on a single goal results in faster progress than breeding for several goals simultaneously. In 10 years, we have achieved 20 percent progress in milk per cow per year. But we have lost on regularity of reproduction and on economical longevity of our cows, brought on by more milk production, to the point where the diminishing returns are beginning to concern us.

Should we not pause and re-examine our one-goal breeding preference and policy? The Norwegians have done just that, and they sound happy and confident about the results. They have always had an outstanding world reputation in dairy cattle genetics, and they have decided to use a total index or "Total Breeding Value," as they call it, instead of a single goal (milk).

They have admitted that heritability for milk yield is much higher than for reproduction and health. Even so, they have been unwilling to exclude these important considerations from their breeding program. The U.S. sire evaluation system calculates predicted difference (PD) values for milk or fat or protein or type scores and some combination of these. But most U.S. dairy people use PD milk for their breeding program because the other values are correlated with milk to some extent.

The Norwegians, on the other hand have developed the idea of the Total Breeding Value. Thanks to today's computers, they systematically collect many data on their future bulls in their young sire proving program, not only on milk, fat, protein and type scores, but also on nine other reproductive and health concerns. They then incorporate all these data into the Total Breeding Value index for each bull and decide on that basis whether he will be released to the dairy industry for general use or not.

In the attached table is a list of the data categories and their relative importance within the index. The Norwegian dairy industry has called this approach very successful in achieving progress in reproduction efficiency and health of their dairy cows, not just in progress of more milk per cow. Should we not re-examine their data in light of our recent trends and rethink our breeding program ultimately for more profits on our dairy farms in the long haul, too?

Farm Calendar

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Farm & Home Center, 7:00 p.m.

Friday, July 7

Eastern Pennsylvania Junior Holstein Judgdin School, Lancaster County, noon to noon July 8.

Keystone Ram & Ewe Show, Ag Arena, Penn State, University Park, 8:30 a.m.; sale 9:30 a.m. Saturday.

Saturday, July 8

Clarion Co. Town & Country Day, Ronald McHenry Farm, Knox.

Keystone Ram & Ewe Sale, 9:30 a.m. Ag Arena Penn State

Sunday, July 9

Jackpot Steer Show, Somerset County fairgrounds, Meyersdale, 1:00 p.m.

Monday, July 10

Blair County Holstein Picnic, Legion Park, Hollidaysburg, 7:00 p.m.

Tuesday, July 11

PDCA Judging School, Troy fairgrounds; runs through July 12.

Talbot County Fair, Ag Center, Hiners Lane, Easton, Md.; runs through July 13.

Wednesday, July 12

Baltimore County 4-H Fair, Baltimore County fairgrounds, Timonium, Md.; runs through July 16.

Pennsylvania Vegetable Growers Association summer vegetable-marketing tour, depart from King of Prussia, 4:15 a.m.; call 717/473-8468 for more information.

Thursday, July 13

Lycoming County Fair, Hughesville; runs through July 22.

Friday, July 14

Kent County 4-H Fair, Kent Ag Center, Old Nike Base Site, Tolchester, Md.; through July 16.

Caroline County Fair, 4-H Youth Park, Williston, Md.; runs through July 16.

Saturday, July 15

Pennsylvania Cattlemen's & Colonial Charolais Association Field Day, Ray Grimes farm, McKightstown, 9:00 a.m. For information, call Dr. Wilson at 814/863-3659.

Sunday, July 16

Pensupreme Ice Cream Festival; Lancaster Square, Lancaster, 1:00 p.m. to 5:00 p.m.

Allegany Ag Expo, fairgrounds, Cumberland, Md.; continues through July 22.

National Junior Angus Show, Louisville, Ky.; runs through July 20.

Cattlemen's Day To Take Place In Adams County

UNIVERSITY PARK (Centre Co.) — The 15th annual Pennsylvania Cattlemen's Summer Field Day will be held at Ray and Mary Grimes' South Mountain Farm in McKnightstown near Gettysburg on Saturday, July 15.

Open to large and small-scale beef producers, 4-H and FFA members and everyone else with an interest in cattle, the day will feature tours, discussions and family fun. Events will start at 9:30 a.m. Admission is free.

Highlights of the field day include free tours of historical sights and area farms, including the Gettysburg Battlefield and the Eisenhower Farm, or a visit to the Mason-Dixon Farm, which is home to a 1,300-head dairy and features innovations in field crop management, methane generation and waste recycling.

Other events include a panel discussion among several beef producers who will discuss problems and opportunities in beef production as well as demonstrate irrigation, hoof trimming and fencing methods. Sponsors will also conduct a judging contest.

Participants are invited to taste the traditional Keystone Eye Steak on a Roll, which will be served at lunch for only $2. "Where else can you get a ribeye steak for so little? We all expect a good turn-out," says John Comerford, assistant professor of animal science at Penn State and one of the field day coordinators.

The field day is sponsored by the Pennsylvania Cattlemen's Association, in cooperation with the Penn State Department of Dairy and Animal Science, the Adams County Beef Producers Association and the Pennsylvania Charolais Association. For more information, contact John Comerford or Lowell Wilson in the Department of Dairy and Animal Science at Penn State at (814) 863-3661 or (814) 863-3659.