

FOCUS

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A NEWSLETTER FOR THE MEMBERS OF THE
PENNSYLVANIA DAIRY HERD IMPROVEMENT ASSOCIATION

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Genetic Improvement Of Pennsylvania Dairy Cattle

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How much genetics progress is being made by the Pennsylvania dairy cow population? An answer to that question can be obtained from the summary data available at the end of the DHIA test year.

How can we measure genetic progress? First of all, we can only measure the progress made by the cows that are on a production testing program. That is now roughly 50 percent of the 660,000 dairy cows in the state. We can assume that the non-tested cows are making some progress but we don't know how much. We do know that the PaDHIA milk average jumped by 810 pounds over last year. That is a big gain when the average increase per year since 1960 has been about 220 pounds. I would guess that the increase for all cows in the state will be about 400 pounds above last years figure of 14543 pounds of milk.

We need to remember that the gain in production is due to both better management and better genetics. In this article we will examine the rate of genetic gain. One of the easiest ways to measure genetic improvement is to calculate the average Predicted Transmitting Abilities (PTA's) for the sires of the cows in the tested herds. The average PTA values of the sires of the cows can be summarized for each herd, each county and on a statewide basis.

We have calculated such fig-

ures since 1976. Changes in sire evaluation procedures and in estimating the genetic base caused some problems but for the interval from 1976 to 1991 we can look at three time periods. The average yearly change in the Predicted Difference (PD) values of the sires from 1976 through 1983 for cows on DHI test was 53 pounds of milk per year. Remember, PD values were used to express sire merit from 1974 until 1989 when they were replaced by PTA values.

In 1984, a new genetic base was established that set the average sire to a PD of zero. The average gain per year from 1984 until 1989 was 78 pounds. In 1989, the Animal Improvement Programs Lab (AIPL) of USDA switched to the Animal Model procedure for cow and sire evaluation. Another genetic base change occurred and for the period from 1989 to 1991 the

average gain per year in sire PTA values was 150 pounds. It looks as if genetic progress is increasing at an accelerating rate over time.

Why has this happened? What has caused it? First of all, older cows with lower sire PTA values leave the herds and are replaced with younger cows whose sires have higher PTA values. Secondly, sires with the higher PTA values are being used more frequently by dairymen who are aware that such bulls sire a higher percentage of better milking daughters than do bulls with average or below average PTA values. Thirdly, AI units run more effective progeny test programs now than in the past. This provides the chance to increase selection pressure and put only the very best bulls back in regular service. Your odds of finding a truly superior sire are much better if you test ten bulls than if you test only five. That example

illustrates what has happened in the past 15 years. If better bulls are available for dairymen to use, then better replacement heifers will be produced.

Pennsylvania dairy cattle have

made much genetic progress thanks to strong progeny testing programs, good identification of the cows within herds and a good production record collection system - better known to all as DHIA.

Board Action Summary

The Pennsylvania DHIA Board met in July and October 1991 and took the following actions of interest to members and others in the dairy industry:

1. A decision was made to support an independent study, in cooperation with Northeast DHIA, Wisconsin DHIC and National DHIA, of the value of DHIA records to the rest of the industry.

In related but separate action, a resolution was adopted at the October meeting to temporarily suspend the target date of Jan. 1, 1992 to begin charging other organizations for DHIA records pending the outcome of the Value of Records Committee's deliberations.

2. An operating budget for fiscal year 1992 was approved with a margin of -\$196,000. Overall member service rates will remain the same in fiscal '92 as they were in fiscal '91. These decisions were made because of the problems members are experiencing due to low milk prices.

3. A new policy regarding credit and payment terms was approved establishing the policy of payment due at the time service is provided for direct members. Payments made after 30 days will be charged 1.5 percent penalty and members behind payment to two tests will not be provided service until their accounts are made current.

4. A policy was adopted to accept no liability for improper or irresponsible use of DHIA records by non-NCDHIP organizations or individuals.

5. The decision was made to collect and report calving ease information for AI organizations at a cost to those organizations of \$.04 per record.

6. The policy regarding actions to be taken when an AM-PM timer is inoperable on test day was modified. The change provides an opportunity for members to repair their timers before having to switch to a non-timer program.

7. Board meeting dates for 1992

were set as follows: January 8-9, April 1-2, July 1-2 and October 7-8.

8. A new service known as optional printed reports was released for use by members at a price of \$.75 per page for members in merged counties. The rate in non-merged counties is the same plus a \$1.00 base fee per run to cover billing costs.

9. Sending reports back to members by FAX was released for use at a rate of \$1.50 per page for members in merged counties, and \$3.00 for members in non-merged counties plus a \$5.00 minimum to cover extra billing expenses.

10. The policy regarding flagging records where changes in an animal's permanent identification have occurred after the second test was modified. The change excludes employee errors from the definition of changes and when that occurs the record will not need to be flagged. Also, members may appeal the flagging of an individual record to PA DHIA management.

11. A new policy was adopted indicating conditions on a member's farm under which a technician or supervisor may refuse to provide service. Such conditions involve unsafe or unsanitary situations and the employee is required to report a refusal to provide service under this policy to the region manager for resolution of the problem.

12. A modification to the Herd Management Awards program was made in the average days to peak milk category. The ranges were increased by about 18 days to reflect a more realistic set of ranges.

13. A motion was made and adopted that as of October 1, 1992, PA DHIA will provide services to direct members only. Individual dairymen in unmerged counties may apply for direct membership and DHIA supervisors employed by unmerged counties may apply to become direct employees of Pennsylvania DHIA.

Welcome New Members

Lowell C Kurtz, Harvey J. Kenely, Donald Hostetter, David Brubecker, Leonard M Nolt, David S. Fisher Jr, Willis R. Hoover, Peter Z Nolt, Amos H Leinbach, Jacob S King, Flowing Spring Farm, John G Stoltzfus, Stanely & Sharon Horning, David G Kromer, Kevin Drake, Stains Dairy Farm, Ray & Kevin Grubb, Samuel N Martin, Jody & Candice Devine, Maple Grove Dairy, John G McGuire, Gloria Black, Ed Stoltzfoos, Jonas E. Beiler, Levi S King, Jr., Aaron M Zimmerman,

Cletus Emeigh, Paul Z Weaver, Dave Noble, Edward Ginger Pflugh, Larry Beach, Danny & Ann Kemp, John Feusner, Mervin Gerber, Delmar & Susan Weaver, Robert + Marlys Grace, Thomas A Spicher, Michael W Beaver, Aaron K Beiler, Steven K Esh, Henry S Stoltzfus Jr, John S Fisher, John I Stoltzfus, Paula Dell Holsteins, Donald White, Richard + Louise Reed, Ver Ann Farm, Dale Melissa Andrus, Tonia Williams, Kenard Henley, John King, Terraced Acres Farm, Bruce + Brenda Hemsarth, Lloyd & Brenda Harvison, Paul + Nadean Cashell, Jason Krause, Dennis L Weaver, Donald + Ardell Bausher, Noah L Zook, Eric Stevens, Benjamin K Lapp, Debra Zaktansky, Ivan Weaver, Joe Caola, Allen H Hoover, How-

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Western Style Banquet

This is the first time ever that our corporate annual meeting will be held outside of State College. The plans are to have you enjoy two days at the Hershey Lodge & Convention Center, in Hershey on March 6 and 7, 1992.

We hope it will be exciting, enjoyable, and educational. Our expositions will intrigue and interest you. We'll communicate hope and excitement on the associations future, the benefits of being a centralized association and what that means to you as a member.

Our banquet will be a Texas style Bar-B-Que and end with other western entertainment. So don't miss out on the fun and excitement. More information should be arriving in your mail. Please plan on attending the Pennsylvania Dairy Herd Improvement Association Western Style Round-Up in March.

Young Cooperative Leaders

Each summer the Pennsylvania Association of Farmer Cooperatives conducts a training program for young cooperative leaders. This year PA DHIA selected as our "Young Cooperative Leader Couple", Mr. & Mrs. Ron Ruffaner, Armstrong County, Worthington, Pennsylvania.

The PCC Young Cooperative

Leaders conference program was held at Days Inn Penn State, State College, on July 8-10, 1991. The objective is to increase young cooperative leader understanding of cooperative issues and affairs. Also to develop leadership attitudes and skills of young cooperative members. To recognize and effectively use both spouses in farm, cooperative, and community affairs. Exchanging ideas and experiences in a social and educational environment is part of the forum that's provided.

The Ruffaners, Beth and Ron, have always had their herd on a DHIA testing program. Ron grew up on the farm and has gradually taken over a 30 milking cow operation. Ron and Beth have 3 children and stay very active with a variety of Agricultural groups in the Armstrong County area. Ron has served as President of the Regional Young Farmers Association, Secretary of PA DHIA local association, and also serves on the board of Farmers Home Administration in his district. Ron and Beth indicated they really appreciated the opportunity to spend time with other young couples from other cooperatives in Pennsylvania this past summer.



Ron and Beth Ruffaner.

Operations Comparisons

	1987	1988	1989	1990	Thru Oct. 1991	Change
Herds Enrolled	6,062	5,947	5,989	6,102	6,034	-6
Prime Herds	12	22	111	206	267	61
% AM-PM Herds	27	29	42	46	47	35
ARIS Users	0	65	129	167	202	1
% Herds on SCC	69	74	82	83	84	1
Heifer Option Herds	0	0	0	0	196	196
% Untestable Samples	0.55	0.45	0.11	0.12	0.08	-0.04
Turnaround (Days)	4.9	4.1	4.3	3.5	3.7	0.2

Enrollment decreased over the summer months by more than 100 herds and 11,000 cows. This trend reversed in September as milk prices began to go up. Cow enrollment climbed by 4,400 cows in September and October, or 1.3%.
The percentage of herds on all types of AM-PM programs reached an all-time high of 47.3% in October. The fastest growing programs on a percentage basis are AM-PM, Prime and DHIR.