GLENN'S UDDERINGS

By
Glenn A. Shirk

Lancaster Extension
Dairy Agent

Herd Genetic Profile

Improvements in dairy herd performance can be attributed to genetics and herd management. The challenge dairy producers face is to breed good genetics into the herd and then manage the herd in a manner that will enable cows to perform to their genetic potential, and to do so profitably.

Your DHIA records can provide a clue to the genetic progress of your herd. Table 1 is a section of Raleigh's DHIA Herd Summary Report. It shows the genetic profile of the herds on official test in Lancaster County. A similar genetic profile can be found on the Pa. DHIA Herd Summary Report II.

HERD PTA $ OPTION	GENETIC PROFILE OF SERVICE SIRES		
	PROVEN A.I. SIRES	A.I. YOUNG SIRES	ALL OTHER SIRES
% OF HERD BRED TO	65	22	13
NUMBER OF BULLS USED	12	7	4
AVERAGE PTA $ OR PA $	+233	+219	+61
AVERAGE PERCENTILE RANK			

Using the county average in Table 1 as an example, 65% of the services were to A.I. proven sires, 22% were to A.I. young sires, and "other" sires accounted for the remaining 13%. The PTA$ for the proven sires was +233 compared to +219 for the young sires — not much difference. The PTA$ of these service sires is an estimate of how profitable the future daughters of these sires will be compared to herdmates sired by bulls with PTA$ of zero. The PTA$ in Table 1 is blank, but producers can choose 1 of 3 options: PTA$ MFP (milk, fat and protein), PTA$ MF (milk and fat) or PTA$ CY (cheese yield).

It is interesting to note that the PTA$ of the randomly used young sires is almost equal to those of the more selectively used proven sires. Both of these far exceeded the PTA$ of "other" bulls, many of which in these official herds probably were "clean-up" bills and "heifer settlers."

The PTA$ for "other" bulls used in unofficial herds (not shown) was +141 compared to the +61 in Table 1. These "other" bulls probably farm bulls, accounted for 50% of all the services in the unofficial herds. The unofficial herds probably made more of an effort to select farm bulls out of genetically superior cows, but in spite of these efforts their PTA$ were still about 100 less than for the two groups of A.I. sires in Table 1.

Table 2

SERVICE OR HEAT INTERVALS		SERVICES FOR PAST 12 MONTHS			
INTERVAL LENGTH	NUMBER INTERVALS	SERVICE NUMBER	NUMBER SERVICES	% SUCCESSFUL	SERVICE SIRE PTA $
		1ST	52	48	221
18-24	11	2ND	25	51	218
36-48	7	3RD +	22	49	210
OTHER	20	TOTAL	101	48	216

Not shown for the county average in Table 1 are the percentile rankings of sires used. These should appear on herd summary reports for individual herds. A good goal is to choose sires in the 80 percentile group or higher.

Table 2 also contains some information on service sire PTA$. The average PTA$ of sires used for 1st services was 221, compared to 210 for 3rd and greater services. In other words, there was a slight tendency to not waste expensive semen and good genetics on problem breeders. The average PTA$ for all sires used was 218.

So far, we have been talking about service sires. Table 3 shows the AIPL PTA$ of the cows and their sires. These estimates are calculated by AIPL (Animal Improvement Programs Laboratory at USDA in Beltsville, Md.) using the Animal Model method. AIPL PTA$ can be calculated on registered or grade cows, living or dead, if the cows have at least one usable official record and their sires are identified. At least 25% of the herd must have sires with PTA$ values reported for average PTA$ of sires to be calculated.

Are You Making Genetic Progress?

If the AIPL PTA$ of the 1st lactation cows and their sires is grea-

(Turn to Page A34)

Table 3

	DRY COW PROFILE					AVERAGE BODY WEIGHT	AIPL PTA $		IDENTIFICATION SUMMARY			
	NUMBER DRY PERIODS	AV DAYS DRY	NUMBER DRY FEWER THAN 40 DAYS	NUMBER DRY 40-70 DAYS	NUMBER DRY OVER 70 DAYS		COWS	SIRES	% SIRE ID	% DAM ID	% USABLE BY AIPL	% ID CHG
1ST LACT						1180	+101	177	83	87	83	
2ND LACT.	15	58	2	11	2	1290	+91	159	81	91	81	
3 + LACTS	23	67	1	14	7	1320	+56	114	84	94	84	
ALL LACTATIONS	38	64	3	25	9	1270	+74	146	83	91	83	