



Changes in USDA-DHIA Genetic Evaluations (January 1991)

P.M. VanRaden and G.R. Wiggins

Animal Improvement Programs Laboratory, USDA-ARS, Beltsville, MD 20705-2350

Records in Progress

New procedures for records in progress were introduced with these evaluations. Genetic variation of projected records was increased to equal that of completed records by expanding the deviations of projected records around the management group mean. These expanded records received less weight in the evaluations. Average yields reported with the evaluations were computed from records before expansion. Thus, no new interpretation is needed except that PTA's for animals evaluated primarily from first-lactation records in progress are now more accurate.

Sampling Codes

The NAAB sampling code system has been extended to more bulls and now is available on the bull evaluation distribution tape (format 380A1). The sampling code is in position 104 and the sampling controller in positions 202-205. Updated versions of the format and reference notes describing these changes were sent to recipients of the 380 tape on October 23, 1990. Changes and updates to individual bulls may result in sampling information on the Active AI List superseding that provided on tape.

Genetic Trend

Table 1 shows the improvement in PTA for the last complete year of data. Genetic trend is twice these values because production depends on all a cow's genes, not just the half transmitted to progeny. Table 2 extends the trend observed in recent years to predict the genetic merit of calves resulting from current breedings. The sire average indicates the superiority of sires. These tables may help remind producers to update their selection standards to keep current with the population and to take advantage of superior genetic material that becomes available each year.

TABLE 1. Superiority of cows born in 1987 over those born in 1986.

Breed	PTA _{milk}	PTA _{fat}	PTA _{protein}	MFP\$
Ayrshire	57	2	2	8
Brown Swiss	104	5	4	10
Guernsey	81	3	2	10
Holstein/Red and White	134	4	4	16
Jersey	93	6	4	17
Milking Shorthorn	54	1	1	5

TABLE 2. Expected average PTA of calves born in 1992 and weighted average PTA of their sires.

Breed	PTA _{milk}		PTA _{fat}		PTA _{protein}		MFP\$	
	Calves	Sires	Calves	Sires	Calves	Sires	Calves	Sires
Ayrshire	445	586	19	27	14	18	61	82
Brown Swiss	812	1143	32	47	24	31	106	148
Guernsey	783	1162	28	39	25	34	102	144
Holstein/Red and White	1289	1857	43	64	33	49	152	224
Jersey	754	1167	29	63	28	44	106	186
Milking Shorthorn	630	636	19	15	15	14	71	65