

**Reliability.** The measure of accuracy or degree of confidence in a PTA is called reliability (REL), which is defined as the squared correlation between an animal's true transmitting ability and PTA. Often, in practice, this value is approximated rather than calculated directly. Essentially, REL for PTA of a trait is a function of the heritability of that trait and the amount of information available. That information may come from the animal's own performance, from the performance of offspring, or from information for parents. As heritability and amount of information increase, REL also increases. Thus, an animal has a higher REL for milk yield than for reproductive efficiency (even if the same number of records are available from the animal and its relatives) because milk yield is under greater genetic control. Also, a bull with many daughters has a more reliable PTA for any given trait than a bull with few daughters.