

TERMS AND DEFINITIONS

Accuracy – A measure of the reliability of an EPD. Accuracy values are reported as decimal numbers between zero and one. Values closer to one indicate larger amounts of available information and greater certainty that an animal's EPD will not change significantly, as more progeny information becomes available.

Adjusted weaning weight – A calf's weight taken at or near weaning adjusted to 205 days of age and adjusted for age of dam.

Adjusted yearling weight -- A calf's weight taken at or near yearling adjusted to 365 days of age.

ADG (Average Daily Gain) – The gain in weight over a period of time (usually birth to weaning or weaning to yearling) divided by the time span in days.

Birth Weight EPD – An animal's expected progeny difference for mature dam equivalent birth weight of calf reported in pounds.

Breeder – The owner of a female at the time of conception is the breeder of the resulting calf.

Breeders herd – A show class in which the entry consists of a group of four (4) animals bred by one owner. Both sexes must be represented.

British breeds – Livestock imported into Canada at the turn of the century and originating in the British Isles.

Calf – An animal born in the current year.

Calving ease EPD – An animal's expected progeny difference for the ease with which its offspring would be born. A higher positive EPD predicts a higher percentage of unassisted calving. A lower or negative EPD predicts a lower percentage of unassisted calving.

Capacity – Overall volume of an animal having a direct relationship to weight.

Commercial cattle – Non-registered cattle.

Completeness – Refers to the animal that has fewer faults than the other animals that it is competing with.

Condition – Refers to the amount of fat cover on an individual animal. An overall conditioned animal is fat.

Cow & Calf – A female over two years of age, with a calf at side.

Crossbred – An animal which is produced from two or more breeds.

Cryptorchidism – A testicular abnormality in which either one or both of the testes fail to descend into the scrotum. It is thought to be determined by an autosomal recessive allele. Although the environment may play a role.

Cut ability – The amount of lean meat in a carcass expressed as a percent of carcass weight. The warm weight of the carcass over the live weight of the animal gives you the dressing percentage.

Dam – The mother of an animal.

DNA (Deoxyribonucleic acid) – DAN is the most basic level of genetic information that gives an individual their characteristics.

Double muscling (inherited muscular hypertrophy) – A genetic defect. Animals are extremely heavily muscled. The trait is associated with lower fertility in both sexes, increased difficulties in calving and increased susceptibility to stress. The heterozygote may be favored in some breeding programs because of the emphasis on muscular development and leanness in slaughter cattle. It is inherited as a simple recessive trait.

Dwarfism (snorter, long headed, buffalo) – A genetic defect. Dwarf calves are usually thick and blocky at birth. The difference between dwarfs and normal calves becomes more noticeable with age. They have deformed bone growth and the nasal passages, which cause difficulty in breathing, hence the name snorter. Inherited as a semi-lethal.

Exotic breeds – Livestock imported from European countries in the last few decades.

Expected Progeny Difference (EPD) – The expected difference in performance of an animal's progeny when those progeny are compared to progeny of an animal with an EPD of zero for the trait in question. EPD values are expressed in trait units; usually lbs. EPD values are relative. They do not indicate absolute levels of performance. Rather, they can be used to compare expected progeny performance of different animals.

Femininity – Refers to the refinement and sharpness of a female's structure and make-up.

Fitting or fitted – Preparing livestock for a show, both in feeding and conditioning, and outer appearance, which generally relates to hair (clipping and dressing).

Frame – Overall height and size of an individual.

Frame score – A score (from one to ten) used to describe relative frame size by relating the height of the animal to its age, in months. The height measurement is taken at the front shoulder or at the hip.

Fullblood – Relating to exotic breeds where both the sire and the dam are imports or direct descendants of imports.

Futurity – Competitions in which owners nominate their animals before the competition, with usually a higher fee. This fee is pooled back into the competition for the top placing animals.

Genetics – The study of the genetic variation and the mechanics of heredity. The term is also used to refer to the genetic composition of an animal or group of animals.

Genetic base – The standard or “zero” EPD for any trait. The base may be defined in different ways. Eg: The average genetic value for all animals born in the three previous years – a rolling base, or the average genetic value for all animals born in a particular year – a fixed base.

Genetic correlation – Correlations between two traits that arise because the same genes affect both traits. Weaning gain and yearling gain are two traits that are positively correlated. Birth weight and calving ease are two traits that are negatively correlated.

Genetic evaluation – A set of complex calculations (called Best Linear Unbiased Prediction – BLUP) designed to estimate the portion of variation in performance of animals which is due to genetics rather than environmental conditions. The results of these calculations are expected progeny difference for a variety of traits on each animal in the database.

Genetic trend – The average EPD for animals born in successive years illustrate changes in the breed’s genetic merit for each trait over time.

Get of sire – A show class in which the entry consists of a group of animals (three or four) sired by the same bull. Both sexes must be represented.

Hairlessness (Hypotrichosis) – A genetic defect. Partial to almost complete lack of hair. Hair develops and is lost so an affected animal will vary somewhat in expression from month to month. Inherited as a simple recessive.

Heifer – A female who has not produced a calf because of her youth.

Herdsmen – A person(s) responsible for the care and presentation of the livestock at the exhibition. The owners of the animals shown employ these persons.

Heritability – The proportion of variation in a trait that is due to heredity and is transmitted to offspring. Inheritability varies from zero to one. The higher the heritability of a trait, the more rapid should be the response to selection.

Heterochromia Irides (white eye) – A genetic defect. Symptoms of Heterochromia Irides are as follows: 1) deviation of normal coat coloring from black to diluted dark yellow to a rich, dark brown, 2) and change in the iris of the eye from normal dark black to blue-gray, giving the iris a double-ringed appearance when closely viewed, From a distance, the eyes appear white, 3) Nose or muzzle is a pale gray to brown, 4) The underlying skin under the hair coat is gray not black, 5) The obvious coat coloring abnormality of these cattle gets even lighter with age, 6) The above symptoms must be in combination with the unusual eye condition.

Hydrocephalous (water on the brain) – Excess fluid is present in the brain. Calves are usually born dead or die shortly after birth. Environmental factors can cause the disease as well as being inherited as a simple recessive.

Index (ratio) – An index number used to illustrate how the performance of one animal compared to the average of the group he was managed with. $\text{Index} = \frac{\text{individual performance}}{\text{group average performance}} \times 100$.

Interim EPD – An EPD which is derived from parental EPDs and the individual’s own within herd performance record rather than a national evaluation of all information in the database. An interim EPD will be replaced with a national EPD when the next national evaluation is conducted.

Junior – An exhibitor or owner who is under the age of 21 years or as specified by breed rules.

Length – Refers to the overall length of an animal measured from the point of the shoulder to the pin bones, adjacent to the tail head.

Length of quarter – Or the length of hip refers to the length between the hock (hip) bone and the pin bones (see length).

Management group – A grouping of animals of similar age (within 90 days) which have been defined by the breeder as having had an equal opportunity to perform.

Maternal milk EPD – An animal’s expected progeny difference for its daughter’s maternal ability. It is expressed as pounds of weaning weight of the daughter’s calves, which is due to the daughter’s maternal ability, particularly milk production.

Osteopetrosis (Marble Bone Disease) – May be caused by genetic defect. The calves are usually born dead, two or four weeks early. Bones are solid and do not contain marrow, making them very brittle and easily broken. The genetic form is inherited as a simple recessive.

Pedigree – A record of ancestry for a purebred animal.

Pedigree estimate – An EPD that is based on pedigree information alone. (ie. The sire and dam EPDs⁰. There is no information available on either the individual’s performance or progeny performance.

Performance – Actual measurements (usually weights) used to evaluate growth traits.

Performance test – An organized and standardized procedure for measuring traits which can then be used to fairly compare animals for those traits. (e.g. weighing animals to evaluate their growth traits).

Polled – An animal that has no horns.

Premier breeder – An award presented to the exhibitor who has bred the highest placing animals in the show. Points per placing in each show calculate this award.

Premier exhibitor – An award presented to the exhibitor who is most successful in the show. This award is calculated by a series of points per class placing.

Presentation – The dressing and fitting of an animal as to hair coat, eye appeal, and general presence.

Progeny – The offspring of an animal.

Prospect calf – A young steer that will be grown to show in a steer competition.

Proven sire – A sire that has sufficient progeny information in the national database to result in EPDs with accuracy’s that meet the minimum level for proven sire status.

Purebred – An animal of which the sire and the dam are both of the same breed or species.

Ringman – An individual who assists the show judge and the show persons in conducting the show.

Scale – The size or dimension of an animal.

Scrotal Circumference – The size of a bull's scrotum, measured in centimeters, which has a direct correlation with fertility.

Showmanship – The manner in which the livestock are presented and exhibited while being shown before the judge.

Sire – The male parent of an animal.

Smoothness – A term used to describe the general appearance of an animal.

Soundness – Refers to the structure and make-up of the individual animal. Feet and legs are usually the factor where this term would be used.

Steer – Castrated males of the cattle species.

Style – Alertness and general sharp appearances are generally a factor in competition.

Thickness or muscle – Judged from behind, an animal with thickness would be wide through the stifle area.

Trait leader – A sire that has been identified as an elite sire for a particular trait, based on his EPD and a minimum accuracy.

Travel – Slang word for how an animal walks.

Two year old – A two-year old female is shown with her first calf at side.

WDA or WPDA (weight per day of age) – A comparative ratio of an animal's weight relative to its age. This is calculated by dividing the weight by the number of days of age.

Weaning gain EPD – An animal's expected progeny difference for weight gain from birth to weaning reported in pounds.

Yearling – An animal over one year of age and having not yet reached the age of two years.

Yearling gain EPD – An animal's expected progeny difference for weight gain from birth to one year of age reported in pounds.

