

# Glossary

**acidosis (or grain poisoning)** This occurs when rumen pH falls too low through overproduction of lactic acid (the end product of grain digestion) which reduces feed digestion and sometimes causes death.

***ad lib* or *ad libitum*** Fed to appetite (freely available to the cow).

**age at first calving (AFC)** A good indicator of heifer management in year-round calving herds. In seasonal-calving herds it is usually predetermined at about 24 months of age.

**agonistic behaviour** A form of social interaction that is associated with aggression, and that also includes threatening and submissive behaviour.

**baulking** Occurs when an animal flinches and ceases movement, often in response to something unfamiliar.

**bar biting** This is a stereotype behaviour when stock clamp their jaws around a bar of their stall and move their head back and forth while chewing on the bar for a minute or more.

**best management practice (BMP)** A description of the most suitable procedures for undertaking a set of tasks to develop a checklist for planning various activities on the farm. Basically it is 'saying what you do, doing what you say, then recording what you have done'.

**biosecurity** A strategy of management practices to prevent introduction of disease and pathogens to the operation and to control spread within the operation.

**blind spot** The area behind the cow which she cannot see. Sudden movement in this area will cause her to startle.

**body condition** A subjective estimate of the amount of subcutaneous fat between the pin bones and the tail head, over the hip and covering the lumbar vertebrae.

**calving interval** The average time period between consecutive calvings in a dairy herd. The target is 12 months, although this is rarely achieved.

**cattle talkers** Lengths of leather strips attached to cane to encourage cattle to move along the laneways; also known as 'cattle flappers'.

**claw** One of the two digits of a cow's foot.

**close-up group** Non-lactating pregnant milking cows due to calve within 3 weeks.

**comfort zone** The range of air temperature when there is no measurable fluctuation in physiological processes of cattle.

**colostrum** The milk produced by cows for the first two milkings post-calving which contains high levels of nutrients and immunoglobulins for

transferring immunity into newborn calves.

**conception rate** The proportion of the total number of services or inseminations that result in pregnancy.

**conception to calving interval** The time period between when a cow has a calf and she next becomes pregnant.

**contract heifer rearing** The term used when dairy producers develop formal agreements with other graziers to grow out their heifers, usually at a predetermined growth rate, until point of calving.

**cope** To have control of mental and bodily stability or maintain control of mental and bodily stability in the face of a challenge.

**cowpersonship** The term could be defined as knowing the individual behaviour of every animal in one's charge and having the ability to recognise small changes in the behaviour of any animal or all the animals collectively.

**cow trainers** These are electric wires located above free and tie stalls to train cows not to contaminate their stalls with faeces and urine.

**crude protein** A crude measure of the total protein in a feed, calculated as the total nitrogen content multiplied by 6.25. It includes true protein, which provides the amino acids for animal use, and also non-protein nitrogen, such as urea.

**cubicle** A place for a single cow to stand or lie, which is separated from other cubicles by walls or dividers. The cows are not tied in the cubicle and can enter and leave at will. It is also called a stall.

**dry matter (DM)** The proportion of a feed remaining after being dried at 80 to 100°C for 24 hours or until a constant dry weight is achieved. The nutritive value and the livestock requirements of feeds are usually expressed on a dry matter, rather than a fresh weight basis.

***E. coli*** Bacteria causing scours in calves.

**euthanise** Slaughter of animal because of health issue rather than because it has reached its planned slaughter live weight.

**farm blindness** Thinking that what you see every day around the farm is normal.

**far-off group** Pregnant milking cows that have just been dried off and are at least 3 weeks from calving.

**fibre** The cell wall, or structural material, in a plant made up of (among other things) cellulose, hemicellulose, and lignin.

**fitness** describes physical welfare, e.g. freedom from disease, injury and incapacity.

**flehman response** This is found in mating bulls (and cows mating other cows on heat) where the head is directed upwards with the mouth ajar, the tongue flat and the upper lips curled back.

**flight distance or zone** The 'personal' space around animals where they will attempt to move away from people.

**foul-in-the-foot** A term used to describe a disease syndrome in cows' feet resulting from wet feet and dirty floors.

**grooming** The cleaning of the body surface or rearrangement of hair on

the coat by licking, nibbling, picking, rubbing or scratching. Grooming may be performed by the animal itself or by a social companion.

**hierarchy** An ordered sequence of individuals or groups of individuals in a social system which is based upon some ability or characteristic, most often to act aggressively towards or displace group members or to have priority of access to some areas of the cowshed.

**indicator animals** These belong to certain groups of stock on the farm that are at greater risk than others, so they are often the first to send out signals indicating something is wrong.

**indicator (risk) locations** These are risk locations on the farm where stock are more likely to be injured, such as a long rough track where small stones can injure hooves, or the calf shed where sudden changes in weather can upset calf wellbeing.

**Key Performance Indicator (KPI)** A numerical descriptor of some aspect of herd management or farm performance that can be used as a realistic target for future improved farm management programs.

**lactation anoestrus** This occurs when high genetic merit cows utilise excess levels of their body reserves to maintain milk yields. This means they will rapidly lose weight and upset the hormonal balances that allow them to regain their normal oestrus cycle soon after calving.

**metabolisable energy (ME)** The amount of energy provided by a feed after deducting energy lost to faeces,

urine, heat, and gas production; it is the energy available to be used by the animal for its metabolic activities.

**MJ ME/kg DM** Megajoules of metabolisable energy per kilogram of dry matter.

**OIE** The abbreviation for the French version of World Association for Animal Health which is one of the key international agencies responsible for animal welfare.

**pH** A measure of acidity or alkalinity on a scale from 1 (extremely acid) to 14 (extremely alkaline).

**pheromone** Chemicals produced by cows to indicate particular emotions, such as fear or being ready for mating, which trigger specific behavioural responses.

**point of balance** The position within the flight zone of the cow (near the shoulder) where she will either move forwards or backwards depending on the cow handler's movements.

**quality** In relation to feeds, it is an indication of the level of energy and digestibility. In relation to milk, it refers to the level of various contaminants in milk, such as bacterial, chemical or any other adulterations that can be detected.

**quality assurance (QA)** A structured set of best management practices.

**risk locations** These are locations on the farm where stock are more likely to be injured.

**SE** South-east.

**service providers** The farmer's network of people who provide services, equipment and 'good ideas' to improve their farm performance, profits and hence long-term sustainability.

**SHD** Small holder dairy.

**slatted floor** A combination of solid parts (slats), which would support the lower surface of the claw of the cow, and gaps (slots) which would allow manure and other liquids to pass through (also called slotted floor).

**solid floor** A continuous flat surface which might be made of various materials and which allows full contact with and support to the lower surface of the claw of the cow.

**social dominance groups** Herd have a clear social hierarchy which is made up of groups of cows with a similar social status within the herd.

### **Standard Operating Procedures**

**(SOP)** A set of instructions for any activity or set of tasks undertaken on the farm.

**stereotype behaviour** Repeated sequences of a behaviour that has no apparent purpose or benefit and is caused by the frustration of natural behaviour patterns or repeated attempts to deal with some problem. Tongue rolling and bar biting are two such examples in intensively housed cattle.

**stress** An environmental effect on an individual that overtaxes its control systems and reduces its performance and survivability or has the potential to do so.

**supplement** A feed or product added to the animal's diet to increase the intake of some dietary component, such as energy, protein, fibre, vitamins or minerals.

### **Temperature Humidity Index**

**(THI)** A system for quantifying heat stress based on temperature and

humidity. The higher the index, the greater the discomfort, and this occurs at lower temperatures for higher humidities.

**thermoneutral zone** The temperature range within which metabolic heat production and energy expenditure are minimal, most productive processes are at their most efficient level and an animal is thermally comfortable without the need to change heat production. The zone is limited by the lower critical temperature (LCT) and the upper critical temperature (UCT); above and below there are energy costs of thermoregulation.

**tongue rolling** This is a stereotype behaviour in which animals extrude and move their tongue by curling and uncurling it inside or outside their mouth. After that, partial swallowing of the tongue and gulping of the air can take place.

### **unclassified notable observations**

**(UNO)** (or 'you know')

Observations of cow behaviour or cow signals that do not always have a logical explanation. At first glance, these may appear to be insignificant, but on reflection and further consideration, they can become important.

**vomeronasal organ** This is a smell (olfactory) sensitive organ located in cattle on the roof of their mouth. The reception of odours by this organ is used for the reinforcement and maintenance of sexual interest.

**wastage rate** A measure of losses in replacement heifers between birth and second calving.

**water lapping** This occurs when some cows lick the water with their tongue instead of putting their mouth in contact with the water and syphoning it into their mouth.

**white line disease** A term used to describe a disease condition of cows' feet where there is a break in the

continuity between the white (or pink) line and the wall of the sole.

**withholding period** The number of days following drug administration before milk or meat can be sold from treated animals.

**zoonoses** Cattle diseases that can be passed onto humans.

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