

Conserving water

Water can be regarded as the most important food for animals. This is clear if one considers that 50 to 90% of an animal's body is composed of water. The water content of an animal's body decreases with increasing age, from about 75% at birth to about 50 to 60% in adulthood.

The variation for a given age is primarily dependent on the nutritional status of an animal, as it is reflected in the amount of stored fat. The bodies of fat animals have a lower water percentage than that of lean animals.

Function of water in the animal's body:

- It functions as a solvent in which nutrients are transported in the body
- It serves as a medium through which wastes are expelled
- A large number of reactions that are brought about by enzymes occur in watery medium
- Because of the high specific heat of water, great changes in heat production can occur in the body with only a small change in body temperature
- Water serves as a lubricant of the joints
- It serves as a water cushion in absorbing shocks
- In the ear it conducts sound and in the eye it is involved in sight
- The embryo is surrounded by water that protects the embryo against shocks.

These functions indicate the importance of water in the animal body. An animal can survive for a few weeks without food, but if water is withheld for only a few days such an animal will die. Therefore, clean drinking water must always be available to animals.

Water is needed not only for vital body functions, such as regulation of the body temperature, digestion, metabolism and excretion, it also affects total milk production. Scientific studies have shown that a 40% reduction of a cow's normal water intake can result in a 25% decrease in milk yield. Therefore, free access to fresh water is essential.

Water needs of a dairy cow

- **Water of high quality:** cows are more sensitive to poor quality water than humans.
- **Free access:** a high yielding cow drinks up to 130l a day. When feeding, water requirements can reach up to 20l/min. This places requirements on both the size of the water system and the number of drinking places.
- **Temperature:** the optimum water temperature is 17°C. Very low water temperatures will result in a drop in milk yield. High temperatures will also negatively affect milk yield, although to a lesser extent.
- **Larger drinking surfaces:** a cow will drink most naturally from a large, calm surface, such as a pool.



Water

An animal will die within a few days without water. Always provide clean drinking water.

Functions: Transports nutrients; digestion; waste excretion; regulates body temperature; lubricates joints; absorbs shocks in the body; is important for hearing and eye-sight; protects the embryo against shocks; is important for milk production.

Bowls: Use in tied-up stalls; easy to clean, small.

Troughs: Use in big stalls; more cows can drink at the same time; difficult to clean.

Water

Sonder water sal 'n dier binne 'n paar dae vrek. Maak seker dat daar altyd skoon drinkwater is.

Wat water doen: vervoer voedingstowwe; help met spysvertering en afvaluitskeiding; beheer liggaamstemperatuur; smeer gewrigte; absorbeer skokke in die liggaam; is belangrik vir gehoor en sig; beskerm die embrio teen skokke; is belangrik vir melkproduksie.

Bakke: gebruik in geslote stalle, maklik om skoon te maak, klein.

Trôe: gebruik in groot stalle, meer koeie kan tegelyk drink, moeilik om skoon te maak.

Amanzi

Isilwane sizofa ezinsukwini ezimbalwa uma singatholi amanzi. Njalo yenza kube namanzi ahlanzekile okuphuza.

Imisebenzi: Ahambisa imisoco; ukugaya ukudla; ukukhipha ukungcola; alawula izinga lokushisa lomzimba; athambisa amalunga; enza amalunga omzimba angashayisani kabuhlungu; ukuzwa; ukubona; avikela umbungu ukuba ungashayeki; ukukhiqizwa kobisi.

Obheseni: Basebenzise ezibayeni ezincane, kulula ukubahlanza, bancane.

Izikhongozelo ezivulekile (troughs): Zisebenzise ezibayeni ezinkulu, kungaphuza izinkomo eziningi ngesikhathi esisodwa, kunzima ukuzihlanza.

Amanzi

Isilwanyana siza kufa ngeentsuku ezimbalwa xa singafumani manzi. Yiba soloko ubonelela ngamanzi acocekileyo okusela.

Imisebenzi: Ahambisa izakha-mzimba; ukwetyisa; ukugutyula okungafunekiyo emzimbeni; alawula iqondo lobushushu bomzimba; athambisa amalungu; adambisa umothuko emzimbeni; ukuva; ukubona; akhusela ithole elingekazalwa kumothuko; ukuvelisa ubisi.

Izitya (bowls): Zisebenzise kwizitali ezincinci, kulula ukuzihlamba, zincinci.

Imikhombe (troughs): Yisebenzise kwizitali ezikhulu, iinkomo ezininzi zingasela ngexesha elinye, kunzima ukuyihlamba.



Metsi

Phoofolo e ka shwa matsatsing a mmalwa ha e sa fumane metsi. Ka mehla di fe metsi a hlwekileng.

Mesebetsi: E tsamaisa phepo e ntle; thuiso; ho ntsha metsi; e laola themperetjhara ya mmele; e tlotsa manonyeletso; e monya letshoho mmeleng; ho utlwa; pono; e sireletsa pelwana (embryo) kgahlanong le letshoho; tlhahiso ya lebese.

Merifi: Sebedisa ditolong tse tlanngweng, ho bonolo ho hlwekisa, di nyenyane.

Dijelo: Sebedisa ditolong tse kgolo, kgomo tse ngata di ka kgona ho nwa ka nako e le nngwe, ho boima ho hlwekisa. [LJM](#)