

Animal welfare

Animal welfare has a major impact on the health and production capacity of cattle. This is one reason why dairy farmers and advisors (e.g. veterinarians) work on improving animal welfare. Also, standards and norms on animal welfare are continuously changing. Customers who consume dairy products, processors and retailers are raising standards and aim to improve animal welfare.

How high the standards for animal welfare in the market are, depends very much on regional norms.

Best practices

On this worksheet you will find so-called best practices that contribute to the improvement of animal welfare on dairy farms. Only best practices with a positive or neutral impact on the profitability of the farm have been included in the suggestions below.

How to apply best practices

All best practices on this worksheet are used in different parts of the world. But it is not always easy to apply them in an effective and profitable way. In many cases this will require training,

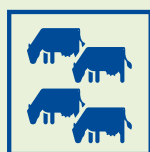
demonstrations on regional farms, experience on individual farms and perhaps incentives from the dairy processor and/or government authorities.

Stockmanship



A better understanding of cattle behaviour, and experience with animal handling is key in working with cattle. It diminishes stress of the animals and creates a safer environment for staff. Knowledge of existing legislation on animal welfare, pain management and internal farm standards on handling cattle can also help to improve animal welfare.

Stocking density



Room to move around, to lay down and to eat and drink is an important condition for health and longevity in cows. The most important action to achieve this is providing more room to the animals. It allows them to express their natural behaviour.

Best Practice	Impact on	
	Welfare	€
Organise training on stockmanship for farm staff	+++	++
Introduce and maintain standards for working with animals	++	+

Best Practice	Impact on	
	Welfare	€
Avoid overstocking: no more than one cow per stall	+++	+
Provide 70 cm feed bunk space per cow (for dry cows 85 cm)	+++	++
Provide 10 m ² per cow (for lying) excluding feed alley	+++	+
Provide pasture access for grazing	+++	○
Push up feed frequently (at least 4 times a day)	+	+

○ No impact + Low ++ Average +++ High

Recording and monitoring essential to timely intervention

Workers on a dairy farm have an important role in observing abnormalities in animal behaviour. This is important to identify cows that are sick, wounded or stressed. Recording systems to monitor animal welfare and health of the animals can also be used. In many parts of the world one or more of the recording systems mentioned here, are available to support farm staff.

Feet and legs	Locomotion score: by observation
	Lying time recording: by sensor measuring
	Foot and leg disorder prevalence: by recording after observation and during hoof trimming
Mastitis	Somatic cell count: by laboratory testing
	Teat end scores: by observation
Heat stress	Temperature measurement in buildings
General	Activity recording: by pedometers
	Body condition score: by observation
	Disease prevalence: by recording after observation
	Treatments: by recording after treatment

Animal welfare - Best practices

Feet and legs



Certain housing systems and high production levels, may put pressure on the locomotive system of cows, resulting in lameness. Preventative measures and timely treatment of cows with feet and leg problems are the main solutions.

Best Practice	Impact on	
	Welfare	€
Trim hoofs on a regular basis (also prevention)	+++	+++
Provide soft and dry bedding material in stalls and pens	+++	+
Use rubber flooring in alleys	+++	+
Implement free access to exercise area	+++	○
Use foot baths against claw infections	++	++

Mastitis



Mastitis infections are contagious, painful for the cow, costly and a hassle for the farmer. All kinds of prevention measures, early detection of infected teats and appropriate treatment are important.

Best Practice	Impact on	
	Welfare	€
Provide hygienic housing conditions (clean stalls, alleys, feed and water troughs)	+++	+++
Implement protocol for detection, diagnosis and treatment of mastitis	+++	+++
Feed according to body condition and transition management standards	+++	+++
Implement protocol for dry cow therapy	++	+++
Implement well-defined milking protocol	++	++
Application of hygiene measures by milker (desinfected hands, gloves)	++	++
Select sires for good udder conformation	+	++

Heat stress



Heat stress in cows results from a combination of uncomfortable temperatures and humidity levels. The higher both are, the bigger the risk of heat stress. Heat stress can already develop when temperatures rise above 20 degrees Celsius, combined with a relative humidity above 75%. Ventilation and cooling are the main preventative actions.

Best Practice	Impact on	
	Welfare	€
Install active cooling systems (fans, sprinklers and showers)	+++	+++
Provide shadow in exercise area and pasture	+++	++
Isolate roof of building	++	++
Adjust feed ration in times of heat stress	++	++
Provide 10 cm water through space per cow or one drinker per 10 cows	++	+
Adapt breed of cows and breeding goal to climate	++	○

Mutilations



Mutilations usually hinder natural behaviour. Lowering stocking density can pave the way for reducing mutilations. Handling cows in a way which causes minimal pain, is also part of the best practices in this group.

Best Practice	Impact on	
	Welfare	€
Apply disbudding of calves before age of 8 weeks	+++	++
Stop mutilations (dehorning adult cows and tail docking)	+++	+
Use anesthetics and pain killers when disbudding	+++	+
Shift to polled sires and/or breeds	+++	○
Train workers on how to treat cows and how to apply medications	+	++

Raising young stock



All of the above best practices also apply to calves, with the exception of the ones relating to mastitis. Housing of calves deserves extra attention because it often differs from dairy cow housing.

Best Practice	Impact on	
	Welfare	€
Provide soft and dry bedding material in stalls and pens	+++	+++
Provide group housing for calves within two weeks after birth	+++	++