



KOONAC Goat Farm

Horns



Picture 1: Terry, one of our older Boer goat bucks

When God created the goats, *He* gave them horns. *He* must have had good reasons!

In wild goats (as in all other, naturally horned species), horns serve as weapon against predators. This function is less important in farmed animals. However, horns also have important *intra-specific* functions, for example, to defend and protect their own genes against the genes of other goats. Does sometimes use their horns to defend their offspring against other does (i.e. other gene lines). And bucks fight over does with ferocious head butting. In our goat herd, where the meat bucks have horns, but most of the dairy bucks have no horns, we observe that the does, in general, are more attracted to the horned males than to the bucks without horns.

Furthermore, horns are of utmost importance in the social interactions within a goat herd. Goats joust ("head-but") frequently to establish and verify their social rank, no matter if they have horns or not. In our mixed herd, the animals without horns are all at the bottom of the pecking order, regardless of their size, age, or social experience.

Horns sometimes feel hot, and sometimes cold, indicating that they serve as thermoregulatory organs. It has been suggested that they are regulating the temperature of the blood supply to the brain (Robert L. Johnson, International Dairy Goat Registry) and natural mechanisms to dissipate body heat in hot weather.

And, last but not least, goats use their horns for scratching themselves, and also as tools for a wide variety of tasks (not always to the joy of the goat farmer, e.g. opening gates or feed bins, create and enlarge holes in fences, making “music” on a wire, etc.).

And yet, despite all these obvious advantages of horns, the current Breed Standard for all dairy goat breeds in Australia requires dairy goats to be “*polled or neatly disbudded*” to match the breed’s ideal. Horns are considered as “*Differing from ideal*” (Regulations of the Dairy Goat Society of Australia). A horned buck in the show ring receives a penalty of 20 points, and does with horns are not even admitted to the show ring (Breed Standard Manual of the DGSA). In the USA, all dairy goats with horns are disqualified from participation in goat shows which are sanctioned by the ADGA (American Dairy Goat Association).

These Regulations are the main reason why almost all dairy goats in Australia are dehorned (see Picture 2, below). The same most likely also applies to the USA. Often the future of the kid is not yet known at the early age when disbudding needs to be done (i.e. at few days of age), but, to be on the safe side, the dairy goat breeder decides to disbud the kid anyway, not knowing whether or not dehorning will be required/appropriate. As a result, many dairy goats are dehorned unnecessarily.

This clearly represent a violation of the "Australian Industry Welfare Standards and Guidelines for Goats (July 2016). Regarding horns, the Objective of this Standard is that "Disbudding and Dehorning is only done when necessary", and the relevant Guideline G6.1 is "Castration, disbudding and dehorning should only be done where there are no alternatives".



Picture 2: This picture is from the webpage of the Victorian Branch of the Dairy Goat Society of Australia (DGSA). It shows a girl with a goat kid that has been recently disbudded. Notice the big scars on the forehead of the goat kid!

I was honestly shocked when I first saw this picture. How can anybody with a normal and healthy perception about goat welfare find it cute and/or suitable to promote the DGSA?

The main argument against horns is always “Safety”. The Australian Breed Standard Manual states that horns “...may be a hazard to other goats and to the caretaker” (page 40). However, if this is actually the case, why should it only apply to dairy goats? The Australian Breed Standard for Boer goats, for example, requires goats to have horns: The Boer Goat must have “*An ennobled appearance, especially with a strong head and rounded horns*”. Boer goats without horns do not comply with the Boer goat breed standard, cannot be registered, and are not allowed to shows.

Molly Nolte (www.fiascofarm.com) plainly states that “...horns are *VERY DANGEROUS*, to you, your family, and other goats”.

I don’t want to deny that horns potentially *can* be dangerous. However, my personal experience with over 1200 goats, which we have raised during our years of goat farming, is that with appropriate equipment and husbandry, the risk related to horns can be minimised to a very low and acceptable level.

Probably the most important measure we take to mitigate the danger horns can represent to humans and other goats, which is also recommended by Guideline G6.22 of the Australian

Industry Welfare Standards and Guidelines for Goats (July 2016), is to clip the tip of the horns. The horns remain blunt for the rest of the goat's life (see Picture 3). They can still cause bruises, but bad open wounds are prevented.



Picture 3: “Tiffany” with blunted horns

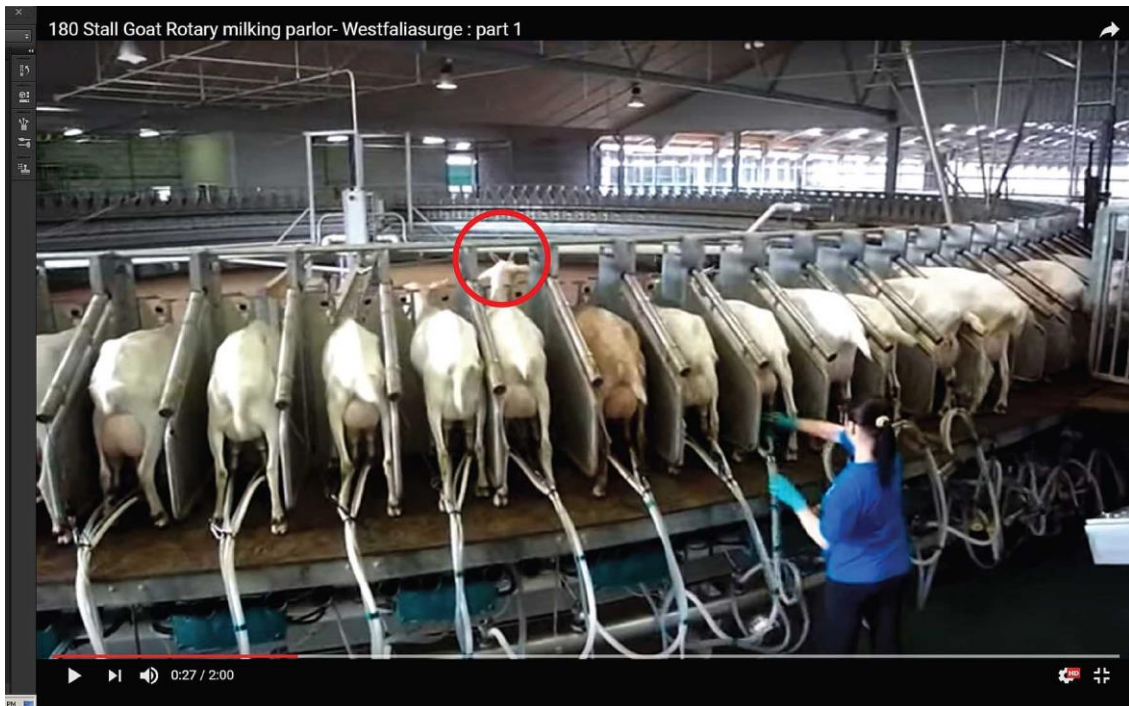
For several reasons, safety issues with horns are more pronounced with bucks than with does. One reason can be that goat farmers, which have only a small herd of goats, often cannot afford to have more than one buck. But bucks, probably even more than female goats, need companions, to play with, and to “burn off” their masculine energy. If they are lonely, they will try to compensate for the missing companion by seeking stronger interactions with the goat keeper. If the buck is challenging the existing hierarchy, this behaviour may contain elements of aggression and can actually be dangerous for the goat keeper. For this reason, it is important, in particular with bucks, to select for animals with docile characters. An aggressive temperament becomes visible already at the age of few months. We send such goat kids inevitably to the abattoir, regardless of other qualities they might have. Animals with a tendency to aggression have no place on our farm!

Another, often used argument against horns is that goats notoriously get stuck in fences and can get strangled. Molly Nolte reports that she “..knew a goat that got their horns caught in a low

basketball net for an entire night” (www.fiascofarm.com). How about removing the basketball net from the goat paddock, instead of removing the horns from the goat?

My experience is that fences, feeders, etc. are safe for goats if one simple rule is followed: The horizontal distance between vertical structures (e.g. pickets in pre-fabricated mesh fence, rods in feeders or hay mangers, etc.) has to be either less than 100mm, or more than 250mm.

During the first 9 years of goat farming, we lost a total of 82 animals. Only two of these casualties were related to horns. In both cases we had to shoot the goat because of a broken leg that got caught between the horns of another goat. This is a horn-related mortality of less than 0.2%. How does this compare to the mortality as a result of disbudding? Unfortunately, no data on mortality caused by de-horning or disbudding are available for goats. However, it seems fair to assume that the situation is similar to calves, where “...producers loose more than 2% of the calf-drop due to complications after dehorning (such as infection), MLA “Feedback” January/February 2014, page 11).



Picture 4: Screenshot from youtube video (<https://www.youtube.com/watch?v=Bda12r1zOpg>) showing that even very big, commercial milking parlors can handle goats with horns, (even if most of the goats have been dehorned for other reasons).

Yet another, frequently used argument to justify de-horning of goats is that modern, commercial goat milking parlors are not suitable for horned goats. However, this is not necessarily the case, as numerous youtube videos show (e.g. <https://www.youtube.com/watch?v=l2Sasf83eF0>). Even very big, modern milking parlors like the 180 Stall Goat Rotary milking parlor from GEA can handle goats with horns (see Picture 4).

To prevent goats from growing horns, the germinal horn tissue on the forehead needs to be destroyed at a very early age (usually at about one week of age). This process, which is called disbudding, is most often done by burning off the tissue with a red-hot iron. If prolonged or excessive pressure with the hot disbudding iron is applied, heat necrosis to bone, meninges, or brain can result, leading to nervous dysfunction, and often to death, sometimes within hours, but often several days or even week after disbudding (“Diseases of the Goat”, by John Matthews, 3rd edition, 2009). However, disbudding is difficult, in particular in male kids, and often done incompletely. As a result... *“Deformed horns, or scurs, are often seen in older goats as a result of incomplete removal of germinal horn tissue at the time of disbudding”* (“Goat Medicine”, by Mary C Smith & David M. Sherman, 2nd Edition, page 17). Such scurs are not only ugly; they also represent a constant potential health hazard, as the following example may illustrate.

In January 2014 we got a very nice little dairy buck. He was about 3.5 months old and apparently from a very good milker line. We liked him a lot, named him "Pete", and intended to use him with some of our Saanen does. Like almost all dairy bucks, “Pete” has been disbudded “by default”. But as often with disbudded bucklings, if the disbudding has not been carried out by a licenced veterinarian, Pete grew some scurs. They were straight, almost like "normal" horns, not curved, and finally reached a length of approximately 20 cm. However, because they were not supported by a solid bone centre, they were weak, and finally both of them half broke off, probably during playing or jousting with his mates (Picture 5). There was quite some bleeding, and the wounds attracted flies and started to rot.



Picture 5: “Pete” with half broken off scurs (the dark pink colour of the wound results from the disinfectant and fly-repellent CETRIGEN we administered).

To avoid complications, we tried to completely remove the two loose scurs. This must have been very painful for the buckling, because he was crying and fighting, and tried to pull his head out of the head-bail. We were successful with the scur on the right side, but could not control the bleeding on the other side (Picture 6). It was obvious that proper surgery with anaesthesia, carried out by a professional veterinarian was required.



Picture 6: We could remove the scur on the right side, but failed on the other side because we could not control the bleeding

Conclusions

An earlier version of this text was published in *The Australian Goat World* (Volume 66, No. 6, December 2014, pages 7-8). It provoked some replies from other dairy goat farmers which, not surprisingly, all were defending de-horning. There was, however, a consensus that the decision to disbud or not should be a choice that every goat farmer can make on his/her own.

Unfortunately, the reality is different. Almost all dairy goats are made hornless (if they are not polled), because breeders feel that the Breed Standard doesn't give them another choice than disbudding the kid.

The current breed standard of the DGSA reflects an outdated social mentality, which is based on the intention to "streamline" all livestock animals to make them as convenient as possible for humans.

To be in line with modern's society's understanding of animal welfare and humane animal treatment, the principles of the "Australian Industry Welfare Standards and Guidelines for Goats

(July 2016) should be followed. These goals can only be achieved, if the Regulations of the DGSA are changed in such a way that goats with horns are accepted as ideal, and that goats (does and bucks) with horns have the same chance in the show ring as goats without horns, whereas goats with scurs are disqualified. Furthermore, the legislation should be changed to restrict the right to disbud or de-horn goats to licensed veterinarians.