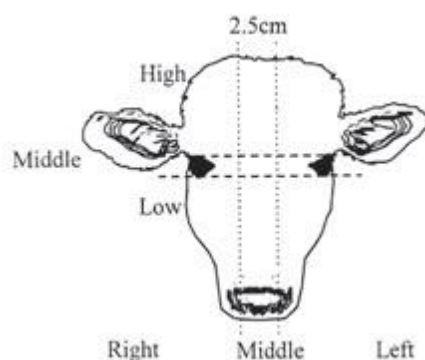


COWLICKS: AN INDICATOR OF ATTITUDE?

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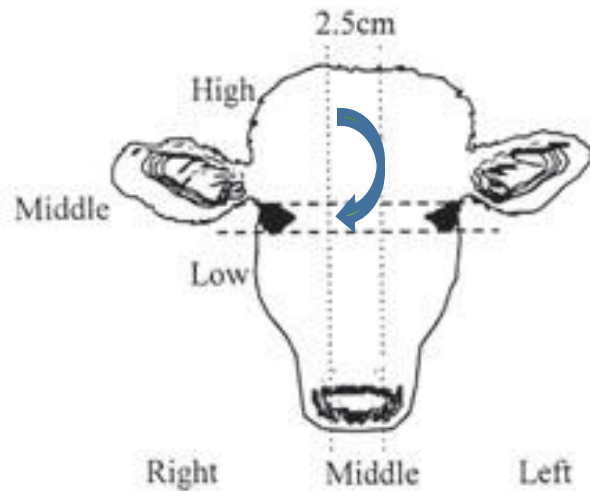
Wouldn't it be nice to be able to look at a calf and predict how it will fit into your herd in the future or how easily it might be trained to lead as a 4-H show heifer? Looking at the facial hair whorl, technically known as a trichoglyph, may be an easy visual indicator of cow temperament, reaction to novel environments, and even breeding soundness. It's hypothesized that facial hair whorl pattern and temperament are connected because hair follicles and skin develop from the same epithelium, or layer of cells, as the nervous system. The brain is the control center of the nervous system, so it is crucial for it to develop properly to allow the animal to function and behave normally. So is a normal facial whorl indicative of a well-developed brain?

Several studies have used facial hair whorls as a tool to evaluate temperament. Location on the face, shape, and direction of the whorl are important features to observe. Hair whorls are considered to be high if they are located above the eyes or low if they are below the eye line. You can note where the whorl is located laterally but it seems that its vertical location is the most useful. The ideal whorl to look for is one with a round epicenter that is centrally located between the eyes

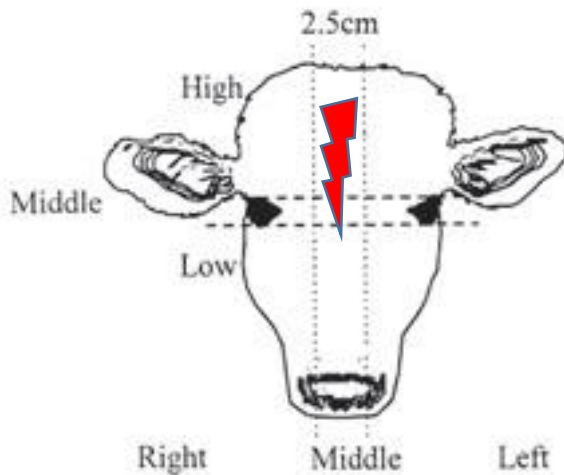


These cattle are the most likely to be calm, reasonable to manage and adapt well to novel environments. If a whorl is found higher on the face or is abnormally shaped, such as a lightning bolt shape, there is a greater chance the animal will be more excitable, nervous and harder to manage than cattle with whorls between the eyes or below. The direction in which the swirl turns is typically clockwise, counter

clockwise, or radial. Swirl direction has been associated with handedness in other species, like horses, but not cattle.



Betty is one of Miner Institute's most easy-going cows. Note the counterclockwise whorl right between her eyes!



Gump, another cow in Miner Institute's herd, is a more aggressive animal and has a zig-zag whorl.

An animal that lacks facial hair whorls entirely tend to be more aggressive and easily agitated than those with whorls. In addition to temperament, research is exploring what other predictions can be made using facial hair whorls. Research has shown that hair whorl patterns could also be a predictor of fertility and

growth rate. It was found that bulls with a round whorl between his eyes were more likely to have high quality sperm. This is due to testicular development occurring around the same time as hair follicle development of a fetus. Studies have also suggested that young cattle with higher whorls tend to grow faster. Heifers with high whorls have been shown to be significantly heavier than those with medial and low whorls after 360 days in age. While hair whorls are only one of many factors that may affect temperament, fertility, and growth, it is safe to say that this easily identifiable trait may provide important information when making culling decisions. Evaluating hair whorls can be done at any stage of life because hair patterns never change...and they are free of charge!

* References available on request.

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