

The value of Linear Evaluation for dairy cows



The modern dairy cow needs to have the capacity to consume large amounts of high quality roughage and the will to make large amounts of high quality milk without losing too much body condition. Moreover, she needs to have the strength to stay healthy and mobile. We will go over some of the most important traits that we evaluate all over the world in the same way, to collect the data nationally for calculating comparisons and eventually breeding values. With these we can select the right bulls for your breeding goal and are able to make corrective individual matings.

A quality udder, also called the mammary system, has the ability to put out high amounts of milk and is less susceptible to injury or disease and correlates highly to herd-life. We evaluate the attachment of the fore udder to the abdominal wall. A high and wide rear udder creates the capacity to store large amounts of milk between milkings. Strong fore attachments and high and wide rear udders are essential for the longevity of the udder since this prevents it from becoming deeper at a faster rate than normal over later lactations. The median suspensory is the fundamental structure for the attachment of the udder to the pelvis. We prefer strong and visible cleft in both the bottom as the rear of the udder. At last we evaluate the placement and length of the fore teats, as well as the placement of the rear teats. It is important for proper attachment of milking equipment and complete milking out of the quarters to have the teats positioned in the center of the quarters.

Profitable and functional cows must walk comfortably and get up and lie down with relative ease. She must walk or stand most of the time during the day, and straight tracking cows with optimum flexibility and set to the legs can freely walk and are more resistant to disease and breakdown. We evaluate the foot angle as we want a cow to have a correct shape and angle of the hoof, so when walking she puts equal pressure on the whole foot. Evaluating legs from the rear, she needs to track straight so that she will put equal pressure on both hoofs of each leg. When locomotion of the cow is correct, she will put her rear leg straight forward and places her foot in the footprint of the just lifted foreleg with relative ease and comfort.

When looking at the frame of the cow, we evaluate both dairyness and strength. A modern dairy-cow should have the will to milk by having open and well sprung ribs pointing backwards, a wide enough chest with sufficient space for the vital organs to operate (heart and lungs). When evaluating young 2 year old cows, we like to see intermediate chest width and depth of the ribs and appreciate late maturity as this correlates positive to herd life. We also measure the height of the cow in Stature. The ideal young cow should be intermediate for stature, as too large can be restrictive in some facilities and too small in combination with a deeper udder might influence longevity in a negative way. Young cows should be slightly lower in front-end than in the rear, also correlating to higher to herd-life .

The reproductive efficiency of cows is impacted by the rump structure. **And cows have to reproduce in order to produce!** So, it is essential to have a correct and functional rump structure. Ideal rumps are well sloped from hips to pins, with an adequate width and strong loins. Weak loins push the reproductive tract down. And adequate width in the rump creates space for a high and wide rear udder.

Huib Peek, tel. +31 6 26 098 998, huub@peek-vdkroon.nl, <https://www.peek-vdkroon.nl>

Independent Breeding Consultant, Founder of M84U mating solutions.