

THE PERFECT COW

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There is no such thing as the perfect cow, but we all want a cow that is perfect for our conditions. My role, as a Traits Other than Production (TOP) Inspector has led me onto many farms and into many herds both in New Zealand (NZ) and overseas. The main objective of most of us is to make a profit and one of the leading factors in making a profit is to lower your costs and one of the most logical ways of doing this is to increase the herd life of your cows. To do this, your cow must have the functional traits that will enhance her lifetime ie: traits that will not break down under the stress of production, walking long distances, getting in calf, calving and being able to turn large quantities of grass into milk.

I will endeavour to convey to you my conception of the ideal cow (physiological terms) for NZ conditions: what to look for when purchasing a cow/herd to help eliminate some problems from the start; and help make culling decisions.

Generally most operations work on a 25% replacement rate but I wonder if they have ever looked at the financial consequence of a lower replacement rate? To have a lower replacement rate the cows must last longer and to do this she must have good functional traits as well as being a satisfactory producer. If you rear the same number of replacements, that leaves animals for sale, export etc.

Notes:



Figure 1. The ideal cow

The features of a cow that lead to a longer lifetime in the herd ie; Functional Traits, include:

Capacity: Capacity starts right at the front: good width of muzzle, the width of muzzle and strength of jaw can tell you a lot of things about a cow; width of chest and depth of body displays the ability of the cow to process grass, and their general health; narrowness through the chest and lack of depth in the body indicates a general weakness in the whole animal. In statistics taken from TOP results have several times confirmed a high correlation between the capacity score and a cow's production. In other words, the more capacious cows in general, produce more.



Figure 2. Cow showing weakness



Figure 3. Good capacious cow

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Rump Angle: This is the trait that I believe that needs the most improvement in New Zealand across all breeds. While levelness from the hip to the pin is acceptable it is important that we endeavour to have a slope from hip to the pin in our younger animals.



Figure 4. High rump angle



Figure 5. Good rump angles

It is a fact that all animals in the wild have a prominent slope in the rump.

This is evolution and a necessary for survival. Of course, the obvious reasons are the ease of calving and the cleaning after calving, therefore improving the chance of getting back in calf. This is an area that I am endeavouring to put more emphasis on at the moment.

Notes:



Figure 6. Water buffalo rump angle

Rump Width: This trait is of course related to pelvic area and it is important that the cow has a good rump width in relation to her overall size, although I believe that to have high pins and a wide rump is no better than having good rump slope and a narrow rump width.



Figure 7. Good rump width



Figure 8. Narrow rump width

Legs and Feet: Without getting too technical, I want to show you that the setting of the thurl joint between the hips and pins can have a major bearing on the angle of the legs and therefore the

locomotion of the cow. While we all see some cows with extreme curvature often leading to long and curled toes with little depth of heel, it is important that we do not go to the other extreme with straight or posty legs that can result in jarring as the feet are placed on the ground.



Figure 9. Sickled legs



Figure 10. Long toe



Figure 11. Straighter legs

Udder: The part we see the most, and have to deal with most often. Udder support or the suspensory ligament, the strength of which mostly determines the shape and height of the udder. The stronger this ligament, the longer the udder life, however, the stronger the ligament with poor rear teat placement can lead to one of our more frustrating problems at the moment ie: close rear teats. Many of the close rear teat problems arise from the teats being on the inside of the quarter, and as more milk is made the outside of the quarter rolls around and the teats touch or cross.

Notes:

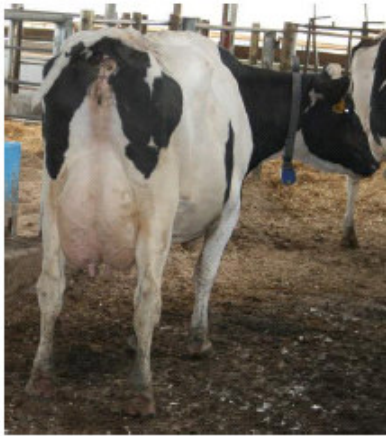


Figure 12. Strong ligament



Figure 13. Poor ligament, short teats, low rear attachments

The fore udder should be snugly attached to the body of the cow to minimise movement and to reduce the chance of it dropping. On any cow the attachment of the fore udder is more snug on the left side than the right due to the abomasum being on the left giving greater area for attaching. The rear udder is scored on both width and height with a high wide rear udder being the most ideal for longevity. Front teats are ideally placed in from the edge of the udder and hanging perpendicular.



Figure 14. Ideal teat placement

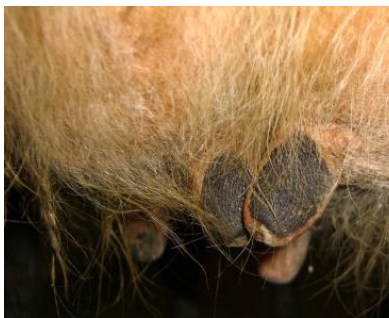


Figure 15. A mission to milk!



Figure 16. Poor teat placement

Over recent years there has been a steady decline in the level of stockmanship on our dairy farms. We have some of the best grass growers and pasture managers in the world but many struggle with the basic skills in animal husbandry. I have come across people that will tell you a

cow is lame but are not sure what foot is the problem, or have one cow that is light in condition, and tell you that she has been like that all her life without recognising she has an undershot jaw.



Figure 17. Undershot jaw



Figure 18. Ideal jaw

Body Condition Scoring (BCS): No matter how much is discussed about BCS it is still a contentious issue and the cause of many disputes. If the industry wants to keep the 1-9 level as standard then people should be using it. How often do you see animals quoted in fractions eg: 4.75 or 3.9 when you never hear of 7, 8 or 2 quoted. Why not be using the scale and only be breaking it down in 0.5 units. Incidentally the majority of the world uses 1 to 5 and many overseas visitors think we are the same because they don't see anything quoted over 5.

When purchasing cows always make sure you see them on short pasture or in the yard so that foot problems are evident. It is not a silly idea to observe them being milked so that many of the factors I have discussed can be identified.

Many people do not understand the TOP chart on a SIRE catalogue, and I will briefly discuss this with you.

Notes:

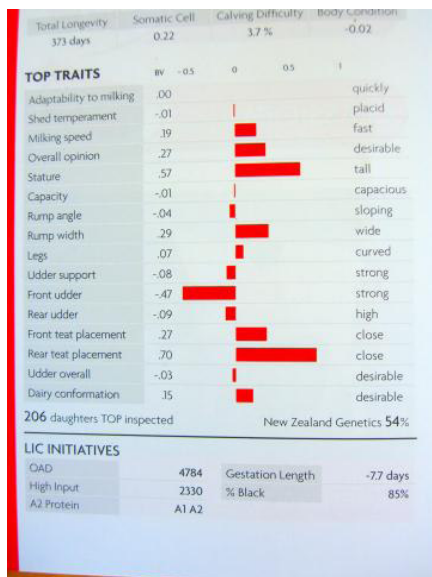


Figure 19. TOP chart

The important thing to note here, is that zero in the centre is NOT average.

I am now going to display using this piece of string that represents the length of a cow's head.

For a perfect Friesian cow this will be the:

- length x 2 from the top of her head to the chine (shoulder);
- length between her hip bones;
- length across the outside of her pin bones;
- length from her hip to her pin bones;
- length from her hock to her dew claw; and
- total length of her udder.

Fold the piece of string in half, and this will be the:

- length between her eyes;
- length of the width of her rear udder;
- length between front and rear teats; and
- ideal width between the front legs.

Fold the piece of string again (quarter), and this will be the:

- length of the eyesocket;
- width of the hock; and
- width of the muzzle.

Fold the piece of string again, it is the ideal length of the front teats, which incidentally is the length of a males thumb.

While I normally work with a live animal, I hope that you all have learnt something from my presentation

Remember that each extra lactation you get from a cow contributes to the bottom line.

Notes: