

LIMITATIONS TO GENETIC IMPROVEMENT OF DAIRY CATTLE
AT THE INDIVIDUAL ANIMAL LEVEL

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Why bother with better cows? Better cows mean more product to sell and even the dullest of us can understand that this means more money.

You can get more milk with better and more feed, which is much easier and quicker in the short term than being concerned with the breeding of better cows and Mr. Average dairyman leaves that up to the stud man Let him spend the time and the money on trying to get better cows because if he succeeds I can benefit by using cheap A.I. bulls. (It doesn't matter whether they are proven or not, as long as they are cheap. He doesn't seem to understand that spending a small amount extra on a proven bull can make the difference in five years time, on a profit or a loss).

So one of the biggest limitations is that only a very small percentage of dairymen are concerned, and seriously trying to improve their cattle - (although this percentage is growing).

Hence, there are a lot fewer bulls being proven through A.I. than there could be if more people would identify their cattle properly, herd record and be in bull proving. So when we come to select a bull for an individual cow, the choice is very limited. Can I hear a geneticist or some Department academic say, "What choice do you need? We give you a production proven bull each year, just use him and you will make massive improvements. That is all you need to know and do."

As a dairy farmer with 30 years of experience, first as a boy on a grade dairy, then 16 years developing my own herd, with limited finance and a dream to own my own farm, I say RUBBISH with no apologies to anyone.

There is more to breeding dairy cows than breeding any other livestock.

1. For a dairy cow to be really profitable she must have at least eight years of productive life, much . . . more than all the meat industry animals.
2. During each year she is subjected to many times the stress of those other animals and all these stresses are trying to eliminate her from her home, e.g., firstly we force her through ever more selection for more and more milk and supply her with the best of feed for her to produce it. This alone stresses her udder far beyond its original capacity of rearing one calf a year. This in turn creates injuries and great opportunities for infection. Have you ever seen a cow whose

udder can't comfortably hold 25 litres of milk? The torn ligaments and bruised tissue, plus the poor animal trying to walk around with her grossly distended udder is not a pretty sight, not to mention the frustration of the dairyman trying to wash, milk and heal the wounds that go with this kind of udder. It is one of the factors for unhappy workers and so many dairymen becoming disgruntled and leaving the industry.

3. Other structural parts of the dairy cow which are important are constitution, good hard feet and a placid temperament.

That is why when I look for a bull to mate "Bessie" to, I need to know much more than just which bulls' daughters gave more milk than their contemporaries in their first lactation. I need to know:-

1. Does he increase milk production significantly? (I won't use a bull which doesn't, except in rare circumstances).
2. Does he increase butterfat test percentage? Test is one of the biggest problems facing today's dairyman, although he doesn't talk much about it, but ask the tanker driver how often he is accused of not taking the sample correctly, and every farmer will tell you the factory is cheating on his test. Besides, it is one of the best and cheapest ways of increasing the milk cheque.
3. Do his daughters have good udders? WHAT Yes, when you milk a large number of cows every day, udders are important. Teats that are easy to put the cups on and are not sore or covered with muck certainly make the dairymaid's lot easier. For example, it is quicker, cleaner, less kicks and "Bessie" lasts longer if her udder is correctly made.
4. So we found the bull to do the above. Can his daughters walk and get enough cheap feed in their gut, and have they the constitution to do all the above things year after year as their iron grannies, who are now entering their twelfth lactation do, with great, great granddaughters for herd mates?

Ah Ha!!! you say, if we are making genetic progress, we don't need granny. I say the length of generation gap and the number of cows which leave our herds through infertility, injury and illness, mastitis, sore feet, and the cost of rearing heifers, plus the fact that a number of replacements, even those just bred for production, never live up to their forbears and the geneticist's promises mean we do need granny !!!!

One of the most worrying problems likely to limit genetic gain that is facing dairymen today is the latest brainwave of using grade bulls in bull proving. It is a great waste of money and smart dairymen learnt years ago that using a bull out of a grade cow even though she may be his neighbour's best herd recorded cow, is a recipe for disaster. Why do we need them? We are not even sampling a quarter of the best registered cows' sons and three or four generations of guaranteed parentage is very important because unless I can see where "Super Bull" got his ability from, I won't use him. Like does beget like: You have your doubts? Try dairying for 20 years or more and you will soon learn that the best cows keep coming from the same families generation after generation.

There are very many outstanding grade cows around. I have had the good fortune to own some of them, but I soon learnt that their descendants do not breed as true as I would have liked. The reason - they were the result of Heterosis and lots of luck. Before we breed bulls we need to know who their grandparents really were and the best way to be sure of that is with registered cattle, even if Mr. grade dairyman says her grandma was by "old Plusproven", you can't be sure. Grade dairymen just don't take the same care with records as the registered man. I know I was one, and I meet and talk to a great many of them. What about the crooks in stud breeding? Well, at least we have protection from them. In our Association every five hundredth calf is blood tested for parentage. You certainly don't have that sort of protection with grades. That is what I mean by guaranteed parentage It is important if we want to improve the odds in our favour in the young bull's stakes. The most amazing thing about the whole grade bull bit is that it has been thought up and is being pushed by men who would consider themselves educated and technically minded, and yet these same men who like to use records, graphs and associated data, want to throw it all away for a method which was proven foolish years ago.

We as a breed do think that those superior grade cow's genes are worth developing and that is why we have a grading up scheme called appendix and, if after four generations the goodness in the first cow has been passed on, then that is the time to get the bull calf into a proving scheme and not before.

My family has been milking cows for four generations and I don't want the sixth generation's cows going back to the quality of my great granddad's cows just because some people who don't make a living milking cows, stuffed the system with a "good idea".

All the facts I have spoken about so far point out what the Holstein/Friesian Association is about. We want to produce total performance cows. Nuclear energy without controls is a failure, and so is dairy cow breeding. They both take a long time to develop properly, and there will be many disappointments and knockers.

There really is a need for an understanding of the modern ideal cow within the departments concerned with the breeding of A.I. bulls. Surely a department working closely with a progressive breed society is likely to achieve more than one that likes to "poo hoo" stud breeding as being for rich fanciers, as may be the case in other stud book associations, but do you know any Holstein/Friesian breeders like that? The ones I know are just very commercial farmers who happen to register their cows and any money they may have has come out the end of cows' tits.

As I said before, we need to involve many many more farmers in herd recording, bull proving and registering. There are many reasons why they should use these tools and they need to be pushed towards them at every turn. The reasons often put to me when I ask - "Why don't you record?" are "It costs too much. My cows aren't good enough yet. I don't feed like you do. I want to get rid of all the unsound cows first. It is too much trouble."

If only we could convince all farmers that it doesn't cost - it pays and that if he doesn't, his cows will never get better. There is no competition or prize to be won. It is for his good, not mine. All the other services, e.g. somatic cell counts and herd health programs offered by the Department will help him with his unsound cows. Just imagine how many more bulls we could prove each year and how much easier I could find a mate for "Bessie" with the production and test. Working together, we could achieve much better farmer participation.

So much for criticising the Department, we also need continued access to the outstanding genes all over the world on a regular basis. The Friesian breed was a joke in Australia when I was a small boy and I can remember the fun the dairymen in our district got from talking about old Clyde with the magpies and their swinging water bags. He must be mad they would say !! but then the N.S.W. Department, plus an astute dairyman, Mr. Joe Calcraft, imported some bulls. The Department went to Canada and bought FRASEA LORD JEWEL, SNIDERS FOND HOPE KING and TRAILYND ROYAL BEAU, and Mr. Calcraft obtained FINTDAVE REUNION from the United Kingdom. Oh and how the black and whites went ahead. Then the embargo went on North America and the United Kingdom and for the years that followed, we still made progress, but not as fast as perhaps we could have without the embargo. Then just when we were looking hard for the next bulls, the great LINMACK and GRIFFLAND arrived through frozen semen, and our percentage tests jumped like we had only dreamed of before, but wouldn't you know, more restrictions again, and no more semen from overseas for some more years. The great gains made by the Friesian breed in Australia have been made by a lot of co-operation and not by just selecting for one trait.

I don't suggest using all overseas bulls is the answer, but why not use the best we can from wherever. Health reasons alone are not the only reasons for embargos - politics and personalities are involved. It even happens between States. One place I feel we could benefit from is the United States with their high production, but they have developed a problem as has Israel, with too much emphasis on milk alone, and they are now aware of a low national butterfat test which we certainly don't want to go back to, but how I admire that milk.

There is another practice which we should all regard as worse than sin and it happens in registered herds just as much as in bull studs. It is not being able to admit we were wrong when we get the results of all that testing. So many times Mr. Studman keeps that low production cow just because her Mum won a ribbon at the Royal - what a recipe for disaster. She should be culled as soon as possible, just like the bull whose daughters have high lactations but the farmers say, have bad udders. Surely he shouldn't sire the next crop of bulls.

The shortening of the generation gap is something which could help individual animal improvement. Heifers which freshen at two years tell us much sooner if our decision was right, or if that "bull proving" bull is any good. In addition, she is making us money. But a number of things are trying to lengthen that gap. Very few farmers feed and grow their heifers to the heifer's potential (and I am guilty of this), but it seems to make sense to use hill pasture on its own rather than supplement them with grain. Most farmers haven't the resources to supply good cultivation feed to heifers, although we know we are losing money and genetic gain by not getting them on line sooner.

I am very much in favour of shows, but it does encourage older calving, as the larger animal usually starts with an advantage. Although this in my opinion is a bad thing, I feel we should be very conscious of size in our cattle. I am looking for a medium-to-large cow, not a giant, nor do I want a small cow. I know a small cow can give as much milk as the big cow, but if she is naturally large, it costs less to get her to calving size and a large motor doesn't have to work as hard to carry the same load as a compact model. I haven't always thought this way, but experience has taught me. One more reason why we need as much information as possible when we pick bulls.

I hear the criticism that top breeders won't give A.I. Centres their best cows. They will you know, if the bull used is good enough. Let me pose this thought. The vast majority of these top cows are not the result of a "contract mating" producing a heifer, nor are they the result of the philosophy of breeding for one characteristic. They got the "goods" from careful breeding and not from selecting for just one trait. The farmer doesn't want his top cow having a heifer by a bull who has only high production and in just the same way, he doesn't want a ballerina who can't work.

The breeder who can't or won't see inferior animals and take the necessary action is not long for commercial dairying and in the same vein, the A.I. Centre which won't admit their favourite bull isn't what the dairyman wants, is just hiding their head in the sand. We must all be critical of our own animals and work much closer together in our quest for individual animal improvements.