

B is for Bulls, Breeding and Budgets

In the next few months, late July to early September, a large number of bulls will be sold in the New England. A lot of money will change hands and your breeding plans for the next twelve months will be locked in. Crunch time is here and in the next few weeks you will need to decide how to spend your money. The comments and back of the envelope calculations below may help you.

Bulls do two things for your business. They get your cows pregnant and they contribute half of the genes to every calf. The genes that a calf inherits from its parents determines a lot of its attributes.

Some bulls are more efficient than others at getting cows pregnant. Some bulls look better than others. Some have attributes that EBVs (Estimated Breeding Values) and \$indices do not allow for. I do not know how to identify these and so cannot advise you how to select for them. However we can identify what genes a bull is likely to pass on to its offspring and we can estimate the economic value of these genes. This helps us to identify the more profitable bulls and estimate the relative values of bulls.

The genetic comparison is made using EBVs. The economic comparison is made using \$indices. My own opinion is that if you are running a business you should concentrate on profits - keeping income up and costs down. A very good way to start on this is to try and increase the \$index value of the animals in your herd - but not at any cost.

If the CAAB/Long fed index of bull A is higher than that of bull B by \$20 then we expect that on average the calves of A will have a Long Fed index value which is \$10 greater than that of bull B. (Only half the genes are inherited.) Another way of saying the same thing is that A's calves are worth \$10 more than B's calves. A third way of saying the same thing is that every time A rather than B gets a cow pregnant you get an extra \$10.

How many pregnancies can you get from a bull? I am going to use an estimate of 100 - 2.5 years of work (which seems to be the average working life of a bull in our district) at 40 pregnancies per year. So if you owned A rather than B you would be \$1000 (\$10/calf x 100 calves) better off. If you could buy B for \$5000 how much should you pay for A? I would suggest that \$6000 would be the very maximum.

When you are next at a Helmsman auction if there are currently bids on A at \$6000 and on B at \$4000 what should you do? A costs \$2000 more than B but only produces \$1000 more in value of calves than B. I do not see the sense in paying \$2000 to get \$1000 so I would make a bid on B at \$4250. If B keeps going to \$5500 then I would shift back to A at \$6250. The magic of the Helmsman system is that you can do these calculations throughout the sale and go backwards and forwards between lots to get the bulls best suited to your needs. If you were in a normal auction you do not have the chance to do this - let alone have time to think about things.

A slight variation on this way of thinking about bulls is to ask what the difference in the cost of calves from bull A and bull B is? Say that the prices of A and B are \$6000 and \$5000 respectively. If each bull is expected to get 100 pregnancies then the cost per pregnancy for A is \$60 and for B is \$50. Pregnancies from A cost \$10 more than from B.

What we were discussing earlier was how to make sure we did not let the cost of calves get too high by paying too much for a particular bull.

Is it possible to increase the number of pregnancies you get from a bull? If you have to join all of your cows on the same day then it probably is not. If you join your heifers two cycles before the cows and use your curve bender bulls (being aware of birth weight and calving ease) on them and then on the cows my estimate is that you could reduce the cost per pregnancy by somewhere around 30 to 50%.

Bulls do not have a monopoly on getting cows pregnant. An AI technician with a CIDR and a straw of semen can do the job too. The technology and costs are reasonably well known. If the top of the range bull that you want to use on your cows costs \$7000 (\$70 per pregnancy) what price would you be willing to pay for semen from him? I estimate that you would just about break even if you paid \$15 per straw.

Why are prices for bulls of breed A on average \$3000 higher than for the other breed H? If A calves sell at a 10c/kilo premium and weigh 300 kilos then each A calf is worth an extra \$30. If each bull gets 100 calves then breed A bulls are worth \$3000 (\$30/calf x 100 calves) more than breed H bulls.

B is also for Beef, Black and Beautiful