

# Breeding by numbers

*Graeme Podbury explains how they think it through*

At Lilliput we are looking to breed animals that are functional and perform in the paddock and are competitive in the show ring. Our intention is to produce top quality cows and bulls. We are always looking to produce senior champions and as a result our juniors, whilst competitive, are a little immature.

We have found that many of the junior champions mature early and do not have that second and very important growth spurt around 15 months. They end up small and over muscled. The senior champions grow into their bodies and in the end are longer, with more volume and better muscle patterns.

To produce these animals we follow a number of simple steps. When you do not have a lot of experience to fall back on and when you have a mathematical background it is best to follow a formula.

The first and most important thing is to find a quality cow or heifer from a successful maternal line. Look at results from the big shows, where lots of the recognised studs are competing. You will see certain cows showing up in the pedigrees of the champions. Of the 26 grand champions at Melbourne Show nine have Trangie J251 in their pedigree and six have Brackengrae Joy in their pedigree.

You need a cow that continues to produce champions through her progeny and their progeny. The cow you choose does not have to be a champion but it does need to possess many of the qualities of her line. Avoid those lines that have one off champions and be careful if a cow only produces to one bull.

Secondly look to see if you can get any other information. Is there any in herd breed plan figures available. We like to see high milk, low birth weight and positive figures for 400 days. Gene star tests for tenderness can be considered but feed efficiency and marbling will only be considered when there is statistical evidence to support them.

Thirdly you need to decide which of the qualities of the cow you want to keep and which areas of the cow need improving. This is where it is useful to seek independent advice as you will have no problems seeing the good traits. It is the problem areas the cow has that most people do not want to see and acknowledge.

Weaknesses in the cow are what you need to improve so it is vital that you know what they are. This is the time when we learn the most about a cow.

Now comes the tricky part. We need to look for a bull that will compliment the good qualities that your cow possesses and improve the problem areas. Once again be prepared to seek advice. The bull must have good feet and be able to walk well. We all know that the biggest problem Lowlines had originally, were their feet and legs. The improvement in the last few years has been considerable so it is vital this continues.

If there are any breed plan figures available, use them to help pick a bull that will compliment your cow's strengths.

We want every calf the cow produces to have these good qualities and hopefully less of the problems. The cow in the picture is Lilliput Lady Jane a grand daughter of Brackengrae Joy. She is the dam of last years' grand champion cow at Melbourne Show, Lilliput Lady Bionce.

Jane was a nice heifer and won her class at Melbourne. As a cow, she had great volume, walked well, milked and calved easily. Her low tail set and her uneven udder went against her.

When we went looking for a bull the first one we chose was Allambie Ziggy, a small bull with an excellent tail set, great length of body and an excellent muscle pattern. As it turns out he produces great udders in his cows as well. This proved to be an excellent combination so we flushed Jane to Ziggy and now have plenty of embryos.

The challenge is to try to produce an even better combination so this time we have flushed her to Lilliput Lord Alkaloid (in the picture). We know he has excellent milk and birth weight figures and that his half sisters have excellent udders. He has the volume and muscle to compliment the cow.

We have our fingers crossed, but unfortunately there are no guarantees. We can only improve the odds of success.

