

### Culling animals earlier - Economic

The availability of scientific research has provided TBL with a strategy for the scientific influence. Installed lysimeters in their scientific lab has enabled them to make a good estimate on how much they are leaching. This science enables TBL to deal with nitrate leaching in the soil. TBL analysed that younger animals made \$22 more profit than older animals per nitrate leached, figures showed that young animals made \$66 per kilo of nitrate leached of profit compared to older animals making \$44 per kilo of nitrate leached. This is because younger animals were more efficient at digesting and absorbing the nitrates within the grass, compared to older animals who were inefficient at digesting the nitrates within the grass and excretion to be inevitably absorbed into the water table. An economic strategy to deal with this helpful scientific influence was TBL initiating the culling of animals when they were aged 14-20 months at 350 kg weight to the hectare. This enabled TBL to have animals who were younger and most efficient at absorbing nitrogen and excreting less into the water table compared to older animals. This positively affected their business plan and enabled TBL to earn \$22 more profit per animal. ①

### Specific Breed and Sex - Environmental

The environmental influence of the nitrate cap has meant TBL has had to use science to their advantage, which has enabled them to research which breed urinates the most and which breeds urinate the least; as well as which breed grows more efficiently in the 14 - 20 month period. It has enabled TBL to discover that males are more efficient at spreading urine than female cows, these variables have been considered in their business plan so they can maximize the efficiency of their farm. From research they were able to identify that the Angus Charolais Cross was the most efficient breed at gaining mass within the 14 - 20 months without the assistance of growth hormones or steroids. Not only this, but TBL was able to identify that male cows leach less nitrate than female cows. This was because male cows generally seemed to walk and excrete - spreading the urine, the urine being spread out meant less nitrates would be leached into the soil. Whereas, female cows generally stood in one spot and urinated creating a higher concentration of urination in a single spot, inevitably leading to more nitrates leaching into the water table. The science equipped TBL to evaluate specific breed growth times as well as the urination patterns of female and male cows, satisfying the environmental influence of the nitrogen cap, as they implemented this strategy to decrease the overall nitrate leached. ②

The environmental influence of having restricted cow numbers to compensate for the nitrogen cap means local farmers income and revenue takes a huge hit. As farmers, TBL is also hit by the nitrogen cap but they are forced to deal with the strict farming requirements which involves avoiding genetically engineered chemicals used to increase profit margins and decrease growth times and mass. These take a large toll on TBL farmers revenue, having 48% more expenses than normal, so how do they deal with this? TBL has come up with a social strategy to advertise their product as a "clean green" product which is protecting

the Lake for future generations. As well as primary research on TBLs behalf, statistics also show that consumers are willing to pay extra - a premium, because they know some consumers are prepared to pay more for environmentally friendly and non-chemical products.

The regional council has assisted in acknowledging the efforts of catchment farmers and has designed an environmental 'tick' for beef farmers in the catchment. TBL believe that consumers are willing to pay a premium for their product as they own the rights to advertise their efforts in ensuring excellent water quality. Due to research showing that charging a premium is very possible TBL then started charging a premium for their product to food outlets such as Moore Wilsons. Other food outlets who recognize this social influence have also started to take these premium meats on board.

Chef's Choice Rump \$23.90 p/kg

Chefs Choice Scotch Fillet \$39.90

TBL Rump \$28.50 p/kg

TBL Fillet \$49.50

Chef's Choice Sirloin \$33.50 p/kg

Chef's Choice Eye Fillet \$59.90 p/kg

TBL Beef \$43.50 p/kg

TBL Beef Eye Fillet \$67.50 p/kg

These prices are representative of the type of premium prices TBL is charging, TBL reported that the product sold at these premium prices to local outlets saw sales of TBL's over the other meat grow to 4:1. This is because people were purchasing TBL meat due to the social influence of knowing the meat was grown while protecting the environment.

I believe that TBL's best, and most viable future proofing strategy is the charging of premium prices. The environmental influence of the nitrogen cap on local farmers is non-negotiable - and the only way beef farmers in the catchment can thrive under these regulations is to charge premium prices for their meat. They are eligible to charge this premium thanks to the precautions they have to take ensuring high water quality, protecting the lake, making their product non-chemically and as green as possible. The future proofing strategies of culling animals earlier as well as specific breeds and sex is not as substantial as charging a premium. This is because the premium pricing is essential for TBL to continue operating into the foreseeable future. TBL's business model will not be sustainably viable without premium pricing in place as the 48% extra costs from the nitrate leaching requirements would be too much if TBL were to sell their meat at normal / general meat prices. This is a more sustainable and future viable strategy as it has a more predominant effect on TBLs business plan and profits.