

Lion Landcare Grants 2016/2017

Project Case Study

Recipient:	J.R. Jones and Partners
Project Name:	Reducing carbon emissions through better feed utilisation
Location:	Hamilton, Tasmania
Funding Amount:	\$11,000
Main Objective:	To reduce energy usage, carbon emissions and methane emissions

Background



David Jones and his partner's southern Tasmanian dairy farm is home to 450 spring calves and cows. On top of their pasture diet, the cattle are fed a 50/50 mix of wheat and corn during early lactation to maximise milk quality and volume.

Talking about the feed supplement and timing, David said "The girls do really well on it in early lactation." Developing both this diet and time of year to feed was based on his research and trial and error. It is this research and having a go attitude that led the Jones family to explore ways they could improve the operation's sustainability and productivity.

Despite the benefits, the grain diet came at a cost because they not only had to buy in the grain but also had to process (crush it) so that the cattle could digest it.

Their grain supplier charged \$20 per ton to process the grain, which added up to \$20,000 over the year. With the narrow margins in dairy, this overhead was a significant cost that had to be looked at to improve the sustainability of the operation.

The Jones decided they would process the grain themselves by installing a mill that forced the grain through the rollers set one millimetre apart. While this set-up had some success, the mill accounted for one third of the operation's electricity costs.

The mill also had difficulties, with small grain passing straight through the rollers, and some large grains jamming the rollers. The outcome was that the poorly processed grain wasn't entirely digested by the cattle.

Lion Dairy Pride Landcare Grants

After hearing about the Lion Dairy Pride Landcare Grants through his Lion representative, David decided he would apply to upgrade to a disc mill. David researched mill systems to find the one that would best suit the operation and improve its productivity and sustainability.

“The application process was a good way for me to review the different mill systems available and the benefit to the farm.”

“As a result, we decided we’d upgrade the mill whether we our grant application was successful or not because we could see it would benefit us in the long-term.” David said.

The disc mill would process all the grain optimally so that it would be fully digested by the cattle with no wastage.

Outcome

Since installation the disc mill has been able to handle the grain effectively, and the cattle have been able to fully utilise the feed. The disc mill is also faster in processing the grain when compared to the old system, and David estimates that it processes the grain in roughly half the time.

“The rollers would process two tons of grain per hour, while the new system process three and a half to four tons.” David said.

With the new mill, the Jones have cut costs by buying in unprocessed grain and reducing electricity bills as the new mill runs less than the older roller mill. With these cost savings the family is able to look at further improvements and investments to improve sustainability on the farm.



New mill and switchboard