CASE STUDY
FOOD AND BEVERAGE
BEARD AND BRAU

An independent brewery at Tamborine in South East Queensland, with the mantra “from the farm, back to the farm”, Beard and Brau are passionate about good beer brewed sustainably.

A CLEAN, GREEN BREW

Beard and Brau’s recent initiatives have been to increase the yield of each batch, which in turn increases their production efficiency and in turn their energy and water productivity.

The brewery has increased its yield by 10% with only a small increase in ingredients and is targeting a further 5% improvement.

KEEPING LOCAL

Beard and Brau like to use their local resources as much as possible. They grow some of their own botanicals on site such as nettle, elderflower and lemon myrtle. Most other ingredients such as malt, grains, hops even cocoa and vanilla are from Queensland producers, with only the yeast and some hops imported. Beard and Brau support local suppliers for packaging, design and printing.

MAKING LIQUID-GOLD EFFICIENTLY

Beard and Brau are always looking for opportunities to save energy, and some of their initiatives include:

- Insulating the shed to keep air conditioning costs to a minimum
- Keeping refrigeration compressor systems indoors to protect from heat and dust
- Internal heat expelled via fans and strategically placed vents
- Use of heat exchangers to recover process heat for cleaning water or preheat vessels for the next batch
- A single glycol system to cool all batches
- Closely monitoring power factor to maintain a power factor of 1.
- Using a new non-caustic cleaning chemicals allowing less water use, and at a much lower temperature.

Having made a number of energy saving changes, they decided to install a solar system to ensure that some of their power comes from renewable sources.

Recently, a new keg washer was installed and is likely to show reductions in LPG use and Beard and Brau are considering installing a small steam system to further save energy and water in keg washing.

BEARD AND BRAU

Independent brewery in South East Queensland passionate about sustainable brewing.

ACTION PLAN HIGHLIGHTS

- Insulation and monitoring and understanding heating and cooling processes within the brewery
- Installation of a solar system to ensure some of their power use is generated by renewable sources
- New keg washer to reduce LPG use Water sourced on site
- A water treatment system that provides clean irrigation water for the farm
- Biodegradable cleaning chemicals to eliminate phosphoric and sodium load in wastewater.

SAVINGS

- 28% ENERGY SAVINGS
- 100% RAINWATER USE
- ENERGY COSTS FROM $700 TO $480/KL BEER
- $4,000 ANNUAL EFFICIENCY SAVINGS
A BREW FROM THE CLOUDS

The only water used in the brewery falls from the sky at Tamborine. It’s a precious resource at Beard and Brau and they are always looking at ways to conserve it:

- A water treatment system provides clean irrigation water for the farm
- A new keg washer has cut the water use in keg washing by 50%
- Development of non-dangerous, biodegradable cleaning regime has reduce cleaning water consumption by 30%.

TOO GOOD TO WASTE

Beard and Brau send a very small amount of waste to landfill – in fact, it fits in their household wheelie bin!

- All production waste is used for stock feed
- Pallet wraps are returned to the suppliers
- All packaged product is made from recycled materials that are also recyclable or re-used
- Biodegradable cleaning chemicals eliminate phosphoric and sodium load in waste water.

ECOBIZ CHAMPIONS

Beard and Brau are recognised through the CCIQ ecoBiz program as three-star champions for their commitment and efforts to reducing their energy, water and waste!