

# Queensland Communities in transition

## Queensland Gidgee Brothers Giving hardwood a second life

Queensland Gidgee Brothers in Central Western Queensland converts hardwood that would otherwise be burnt in piles, into good quality natural charcoal. The company arose from the need to find alternative income for the family owned property during the drought. After operating for 12 months they have gone from strength to strength, sending products all around Queensland and into Northern New South Wales.

The Gidgee wood is sourced from the Central Western Queensland area on properties that have thinned trees for activities such as grazing. The current common practice for cleared hardwood is to pile it up on site and burn it. QGB now collects this hardwood and turns it into charcoal. The charcoal is quickly gaining recognition in the BBQ and Smokers communities as one of the hottest and longest burning lump charcoal on the market.

### HIGHLIGHTS

- Converts Gidgee hardwood into charcoal
- Slow controlled pyrolysis process
- Using wood that would have been piled up and burnt on properties
- Each load converts approximately 1200kg of timber into 40-50% weight



*"This business has opened up a whole new world for us and we have both started adventures into BBQing and smoking with natural charcoal. The best part is that the BBQ/Smoker community have been massively supportive of our product, are super friendly and some of the nicest people we have had the pleasure of meeting."*

**James Egerton, Owner**





**QGB harvest the wood themselves and cut it into packable lengths before loading and firing the kiln. Once the pyrolysis process has been completed the charcoal is unloaded, screened and bagged.**

QGB use a network of family, friends and local transport companies to move the charcoal products to stores in regional Queensland who tend not to have access to large hardware companies.



Their main market is natural charcoal for BBQ, Smokers and restaurants. Within the first 12 months of operation they have sold, provided samples and donated (events and competitions) over 1000 bags of charcoal.

QGB are already working on how they can expand their business by researching other markets such as biochar for use in both the horticulture and agriculture sectors.

They are also investigating new feedstock streams such as local biomass (from Local Councils etc) and aspire to tackle other problematic waste streams such as tyres and plastics, which are particularly challenging for regional councils. Converting these waste streams into usable products, while generating local jobs, helps to develop the circular economy in regional Queensland.





Slow pyrolysis is the process of heating wood over a 10-12 hour period in the absence of oxygen to give charcoal as the main product. This burns out the water vapour and other components within the wood feedstock leaving the carbon.



QGB have chosen to run the pyrolysis process in a kiln rather than the more traditional method of pit burning. QGB constructed the kiln themselves with a bit of research, experimentation and many hours of trial and error.

The kiln gives them more control over the process and allows them to capture combustion gases which are used to further fuel the burning. This reduces the amount of greenhouse gases produced in the process.

Due to the density of the Gidgee tree this produces a denser and hotter burning lump of charcoal compared with softer woods.

"At our core we wish to be a transparent, competitive and approachable business, to the point we have helped others build their own charcoal retort/kiln."

**James Egerton, owner.**



This case study is part of a series of case studies that have been developed as part of the Queensland Communities in Transition Program. Prepared by The Ecoefficiency Group as part of Clean Growth Choices Consortium with funding from Queensland Department of Environment and Science, 2019 For further information, visit [www.cleangrowthchoices.org](http://www.cleangrowthchoices.org)

