

Leucaena Provides Choice **Peter and Colleen McLucas** **Quincan Springs, Peeramon**



With exceptionally fertile soil and an ongoing commitment to maximize outputs from their enterprise, Peter and Colleen McLucas had to consider whether the potential benefits of participating in the MLA Producer Innovation Fast-Track program 'Redlands for Regions' with The Leucaena Network would improve their bottom line.

Redlands, the new psyllid tolerant leucaena variety, was officially launched in May 2019 with Peter and Colleen being one of six graziers undertaking establishment trials prior to its release.

Peter and Colleen run a beef finishing enterprise on 'Quincan Springs' at Peeramon on the Atherton Tablelands on their 375 hectare property.

Peter and Colleen improved 'Quincan Springs' original grasses of setaria and brachiaria (signal grass) with rhodes grass, green panic and legumes including clover and glycine. Runners of pinto peanut were also planted. Prior to commencing with the Redlands trial, these improved pastures achieved weight gains of up to 250kg/hd per annum so Peter and Colleen were doubtful if adding leucaena to their grazing system would result in significant enough improvement to warrant the establishment costs.

"We purchased 'Quincan Springs' in 2005 and since that time have improved our pastures with the implementation of rotational grazing" Colleen said.

"This area provides exceptional pasture growth with improved pastures and legumes so we needed to seriously assess what the benefits of adding leucaena into our mix would be prior to committing to the trial."

The McLucas family proceeded as part of the 'Redlands for Regions' trials and were able to demonstrate exceptional establishment of the 32 hectare trial and a greatly reduced timeframe from planting to the first graze.

The Redlands trial commenced with planting on 'Quincan Springs' on 30th January 2018 in single rows with 15 metres between each row. The planting rate was 1.3kg/ha. There was good soil moisture at planting with 224mm received in the last week of January 2018 and 8mm rain in the first few days after planting.

Early establishment of 75% was observed at 6 days after planting.

The successful establishment was not without some issues.

The very high grass and legume biomass and ground cover, normally of great benefit to a grazing operation, required extensive cultivation to prepare the paddock for planting, resulting in significantly higher site preparation costs. This issue will be addressed in future plantings with site preparation being undertaken much earlier to enable the grass stubble and root mass to break down prior to planting.

Heavy rain in early February 2018 resulted in some erosion in small areas of the site. Replanting of this area was undertaken on 14th February 2018 at the same planting rate. Once again establishment of 75% was achieved.

Weed pressure on the leucaena seedlings was a significant issue, particularly signal grass and pinto peanut. This required herbicide use as well as mechanical control. Peter and Colleen were determined to capitalize on the initial successful establishment and even undertook hand weeding in some areas.



Peter and Colleen were able to undertake an initial light graze with 276 steers for five days only on the trial site in July 2018 at only six months since planting. This graze was to encourage the leucaena to establish lateral branches and to address the minor psyllid load. Although psyllids were detected on the new growth, there were no detrimental effects and the psyllid presence declined in December 2018.

Throughout the second half of 2018, the leucaena trial contributed to 'Quincan Springs' ability to continue their finishing operation despite dry conditions. The paddock was spelled throughout January 2019 with Peter and Colleen commencing their own live weight gain trial in February 2019.

Leucaena has proven to be a viable addition to Quincan Springs' grazing system with weight gains averaging 1 kg per day achieved.

Peter and Colleen plan to expand their leucaena plantings with an additional 30 hectares in January 2020 however they will be increasing the Leucaena/Grass ratio by reducing their row spacing from 15 to 7 metres.

“Whilst our increased weight gains are not as dramatic as those in a lower rainfall and less fertile soil environment, leucaena allows us to increase our carrying capacity to 2.5 A/E to the hectare,” Colleen said.

“It provides us with the ability to continue to meet our market commitments during unseasonal dry spells – basically leucaena provides us with the opportunity to ride out weather and market fluctuations and take greater control of when we sell.”

