# CASESTUDY





Backburn with technology expert at their farm in North Eton, QLD

## Chris, Madonna, Lee, Angela, David, Diane, Phil & Sue Blackburn

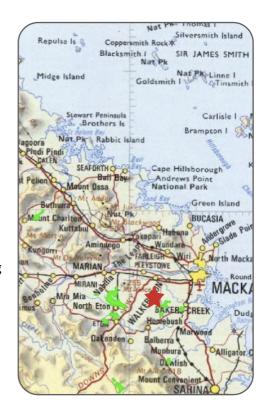
The Blackburn families are third generation farmers that have lived and worked in the North Eton district for most of their working lives.

Lee and Chris and David and Philip are actively involved in their farming activities, associated harvesting contract business and local industry trials.

Lee is an active member of CANEGROWERS Mackay and is also a board member following in his father Neville's footsteps.

Lee and Chris in partnership with their cousins David and Philip run a very successful harvesting contract that at times can cut 100,000 tonnes.

They recognised the need for change as the rising costs associated with harvesting are realised.



## Trial: Double Skip Row with Legume crop precision agriculture

They have seen the cost benefits from changing to the new farming system and matching the row spacing to the implements being used. They are heavily involved in growing peanuts and corn and soybean as a break crop in a sugar farming enterprise, and have seen the direct benefits both in cash flow and increased crop vigour and yield in the cane crop.

Lee , Chris, David and Philip have all been able to utilise the new technology in their farming system with GPS guidance on both main tractors and harvesting equipment. They are currently utilising controlled rate nutrient application technology in their nutrient applications.

### **Description:**

The Blackburns are using a range of available technology to enhance their farming techniques. This includes water conservation with centre pivots and lateral move irrigators to the reduction in chemical and nutrient applications across their farms.

#### Issue being addressed:

One of the big issues being addressed by implementing their new farming system was the loss in yield caused by the monoculture of sugar cane impacting on soil health. There are still major cost's involved in planting and managing a crop of cane In the new farming system and the Blackburns were interested to start to reduce these input cost. Solutions being tested: With regards to their farming system, the latest new technique they are trying is dual row, skip row sugar cane. This means 2 x 1.8 metre

rows of sugar cane planted and then a gap of 3.6 metres planted with a different crop. The crop that has initially been trialled is peanuts. The initial trial showed up the inadequacies of having a crop that has high water requirements (peanuts) in conjunction with a crop that has medium water requirements. The reasoning behind this is the 3.6 metre gap suits the machinery they have on their farms to manage alternate crops. If they can successfully go with duel row skip row method, the duel row matches the machinery and harvester. This means that sugar and alternate crops, such as peanuts, can be harvested from the same block in the same year. The sugar cane will handle the gap exceedingly well. The challenge is to identify other suitable crops that will be beneficial, both economically and environmentally, to this farming system.

#### Immediate results:

The immediate results were that we could grow cane successfully and peanuts successfully and work within the row spacing. The peanut yield was poor and was not harvested crop establishment was fine but differences in water requirements make this combination hard to sustain. Sugar had a slightly reduced return but the efficiencies in harvesting the sugar cane and less compaction have shown that this concept has merit just needs to be explored further.

Future plans is looking at other crops that can go into duel row spacing and the inherent problems that could be created.

"Project Catalyst has allowed us to broaden into new technologies, which will hopefully allow the next generation of farmers to be able to farm in a sustainable manner."

Lee Blackburn

Right: Father, Neville Blackburn with sons Lee and Chris at their farm in North Eton, QLD



