



The Southern Region Group has identified improving harvest efficiency as a priority for improving production.

Southern Region Group working together to drive productivity

The Southern Region Group was formed to bring together stakeholders to drive productivity improvements, and has so far focussed on the key issues of optimising harvesting efficiency and improving production on marginal soils. By James Ogden-Brown

The Southern Region Group was formed three years ago, with stakeholders from across all three mill areas in the region: Bundaberg, Isis and Maryborough.

It consists of SRA delegates, growers, millers, productivity services, harvesting contractors, DAF and SRA with the primary aim of addressing agronomic issues that are affecting production in the region.

The group's primary focus is to increase production in a profitable and sustainable way. The two issues that the group first identified were harvest losses and increasing production on marginal soils.

Work conducted by SRA over a number of years showed that losses from mechanical harvesting were taking place.

However, these losses needed to be identified commercially so that we can see what is actually happening in the field.

Adoption Officer Phil Patane from SRA has been very active across industry as well as in the Southern Region working closely with harvest contractors, millers, growers and researchers demonstrating that commercial losses exist.

The work is showing that losses can be very high if harvest set-up is not correct, if excessive speeds are used in harvesting a crop, and if presentation in the form of hill profile is not correct.

These losses can be as high as 20 percent, and in most cases they sit around 5 to 15 percent.

So, knowing that it is very difficult to recover losses below 4 percent, this would indicate recoverable losses are around 10 percent, on average.

Let's put this another way: the Southern Region produces around 4 million tonnes of cane and we are leaving 400,000 tonnes behind at \$47/tonne = \$18.8 million of crop thrown away.

This is the value we are trying to recapture.

Marginal soils is where expansion in the cane industry for the region will take place. There is a lot of pressure from tree and small crops for the better class soils. I am referring to grey forest type soils (sodic duplex).

What are the issues with these marginal soils?

They have a high silt content and low organic matter, which creates crusting issues, they are sodic by nature with low cation exchange capacity which can lock up nutrients, they have low pH at depth and high toxic levels of aluminium and other elements where the plants roots will not grow. In other words, they are poor soils (I have heard other terms used).

The group had several discussions with SRA researchers Barry Salter and John Panitz and DAF researcher Neil Halpin based on the work that has been done in Maryborough by the Cronau brothers and Andrew Dougall from MSF Sugar. By applying compost at depth, the Cronau Brothers found that there was a yield response of 10 percent.

SRA funded a joint project with DAF to conduct research into this work to see if the results are consistent and if the economics stake up. Trial sites have been set up in the Central as well as the Southern region.

As the group is an active group Terry Cunningham (who has just retired) from Bundaberg Sugar also set up an observation trial by applying mill mud ash, cow manure and chicken manure at depth. Bundaberg Sugar noted that 20t/ha of cow manure as well as the mill mud/ash increased their yields by 20TCH.

What else has the group identified as important issues?

A concern for those growers that it affects is soldier fly as it has a significant effect on ratooning of crop where the insect is found.

There are a number of questions that need to be addressed. What does the insect do that affects the crop ratooning? How do we effectively manage the insect? Are there varieties that are tolerant to the effects of soldier fly?

SRA Biosecurity Leader, Andrew Ward, and his team at SRA are assessing methods of controlling the pest including new insecticide chemistry. The regional productivity services are assessing varieties along with SRA plant breeding to see if there is varietal tolerance.

The SRA Board has also recently approved new investment in research to understand the fundamentals of the impacts of soldier fly.

Another concern is that in the market place there is only one effective insecticide to control cane grubs and that is imidacloprid (suSCon Maxi, Confidor Guard, etc). If we continue to use just this one group, we will end up with resistance to it. Again, Andrew Ward and his team are conducting trials to assess new groups of insecticides and control measures for the future.

What's next?

This question was put to the group at the last meeting and the decision was to focus on farming systems and all aspects of it, which include:

- Matching row spacing to the heavy gear
- Soil health and amelioration
- Legume rotation
- Reduced tillage
- Efficient and effective irrigation systems

Yes, it will be a holistic approach by including all the above. Our end objective is increase production in a profitable and sustainable way.

It is not a closed group and anyone in the Southern Region who would like to attend the meeting is welcome.

For more information

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Below left: Mill mud being placed at depth, as part of research into improving production from marginal soils.

Below right: Roots growing into the mill mud zone.

