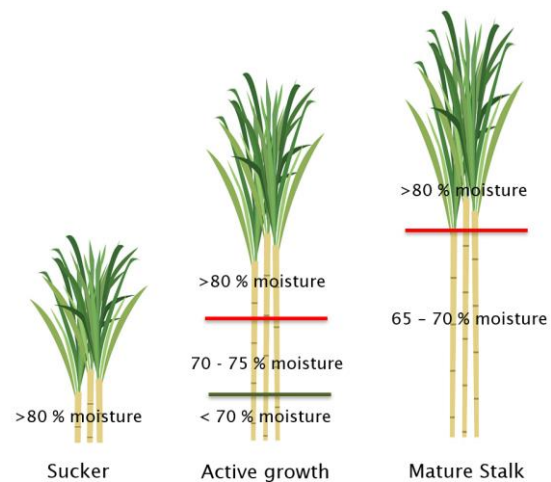


SRA CENTRAL DISTRICT - CROP RIPENER DEMONSTRATIONS

What did we do:

- Selected two sites which had actively growing cane.
- Measured the cane to confirm that the average moisture in the stalk was above 70% (see the photo). This confirms that the cane is still actively growing.
- Applied Potus (250 g/L Trinexapac-ethyl) in May and harvested in June.
- Potus has the same active as Moddus.
- The aim was to artificially increase the maturity of the cane. We expected to see an increase in CCS and possibly a small reduction in cane yield at harvest.



What did we find:

- On average CCS in the Potus treated crop increased by around **0.8 to 0.9 units**
- On average yield of cane reduced by around 1 to 2 tonnes.
- The results were variable within each paddock, and the differences seen were not statistically significant.
- On average, the ripener acted as expected but variability within paddocks affected the results.
- On average the increase in sugar per hectare was greater than the cost of application.
- In the two trials it was in the range of **\$312 to \$440/ha** benefit to the grower after the application and chemical costs were deducted.

What are the learnings:

- There appears to be a potential benefit from the use of this crop ripener, but the specific selection of which crops to treat is an important consideration.
- Identify which crops are likely to benefit from the application of a ripener by testing moisture in the stalk. They must be actively growing and be harvested in 5 to 8 weeks after application.

Trial design:

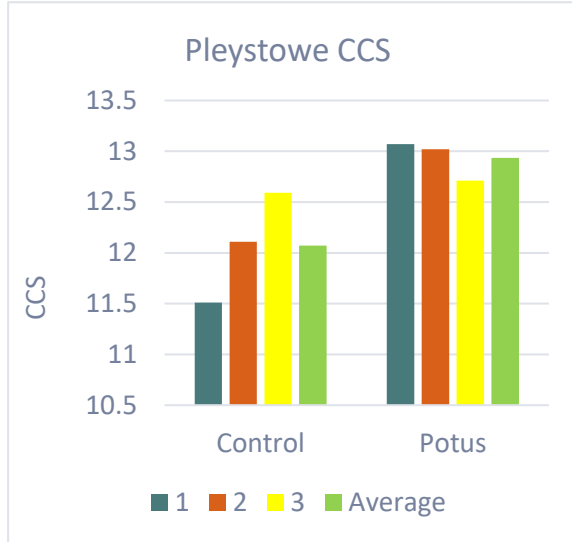
- The two demonstration sites were established in May, with harvest completed in the first 10% harvest round of the crushing season.
- Both demonstration sites prior to the treatment had an average moisture content of the stalk was >70% (measured with the SRA maturity trailer). That means both sites still had actively growing cane and would respond to Potus.
- Both demonstrations consisted of a control treatment and a Potus treatment (250 g/L Trinexapac-ethyl). Replicated strips were randomised across the paddock.
- Potus was applied as per label recommendation of 800 mL/ha and within the recommended window to harvest (5 to 8 weeks).
- The cost of product at time of application was \$48 per ha, plus application cost.
- The treatments were applied through a drone due to the small, randomised treatments. In a commercial application, local helicopter contractors would offer a lower application cost ~\$80/ha, for gross margin calculations, \$130/ha for treatment (product + application).

If you are interested in using a crop ripener on your farm, please give us a call:

- Dylan Wedel, District Manager – Central, 0490 029 387, dwedel@sugarresearch.com.au
- Stephanie Duncan, District Delivery Officer, 0459 863 298, sduncan@sugarresearch.com.au

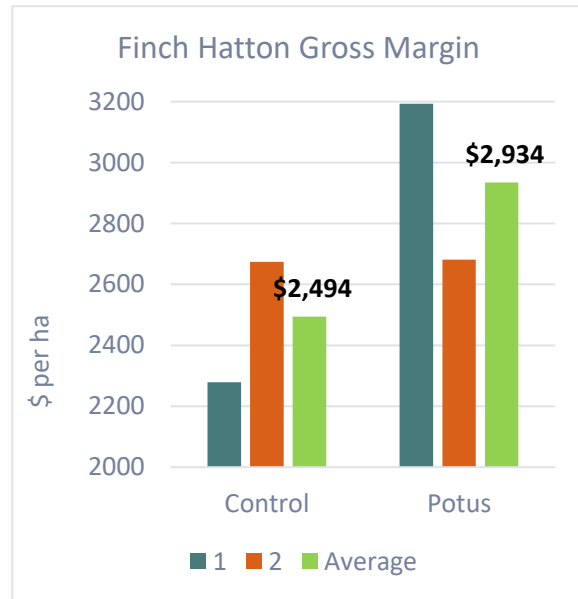
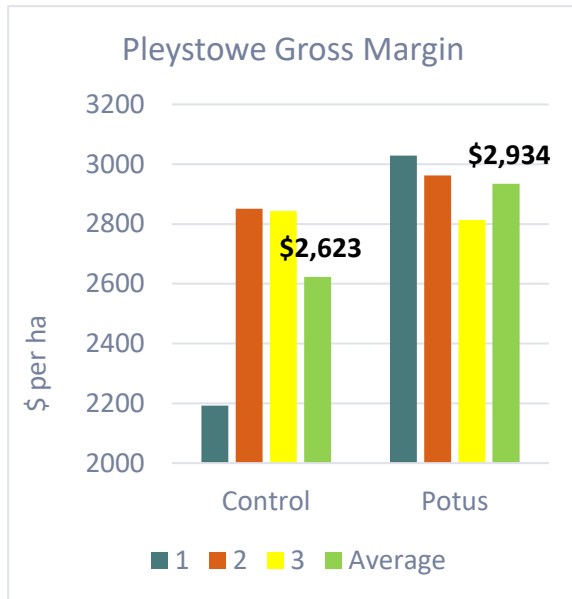
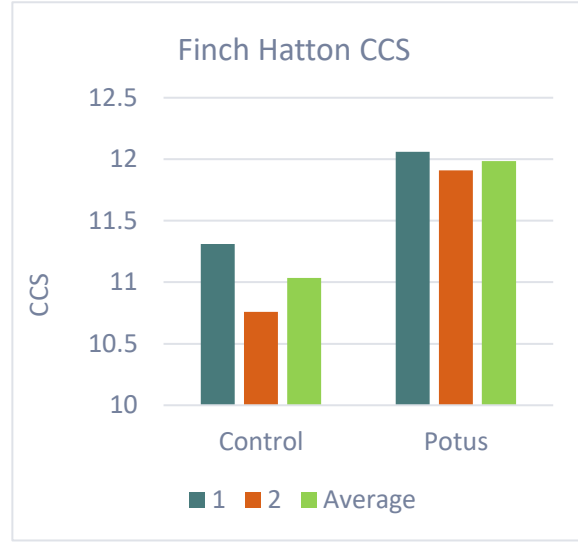
Pleystowe

Application Date: 5th May 2022
Crop Moisture at Time of Application: 75.21%
Harvest Date: 23rd June 2022
Variety: Q208
Area per Treatment: 0.8ha, **Total area:** 4.8ha
3 replicated strips of control and treatment
7 weeks from application to harvest



Finch Hatton

Application Date: 27th May 2022
Crop Moisture at Time of Application: 73.15%
Harvest Date: 30th June 2022
Variety: Q183 Plant
Area per Treatment: 0.45ha, **Total area:** 1.82 ha
2 replicated strips of control and treatment
5 weeks from application to harvest



| Average Results | CCS | t/ha | TSH |
|-----------------|--------|-------|-------|
| Control | 12.07a | 88.6a | 10.7a |
| Potus | 12.93a | 86.7a | 11.2a |

| Average Results | CCS | t/ha | TSH |
|-----------------|--------|--------|-------|
| Control | 11.04a | 101.1a | 11.2a |
| Potus | 11.99a | 100.0a | 12.0a |

Gross Margin Equation: $((\$550/t * 0.009 * (CCS - 4) + 1.12) * t/ha) - t/ha * \$10/t(\text{harvesting}) - \$130/ha(\text{treatment})$

Values followed by the same letter are not statistically different (P>0.05)