

NORTH COAST

EXTENSION MATTERS

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Welcome to the latest edition of the **North Coast Extension Matters** newsletter. Let me start by introducing myself. My name is Tracey Campbell, and I recently joined the North Coast SASRI team as your Extension Specialist. I relocated from the Lowveld, where I worked for a producer and exporter of subtropical fruit, focusing primarily on avocado production. I am genuinely excited to delve into the world of sugarcane, understand your unique challenges, and provide the best support on this journey.

Please do not hesitate to contact me at any time - you will find my contact details above. Please note that I will be attending the Senior Certificate Sugarcane Course from 5 February to 8 March. Should you need assistance during this time, I will be happy to arrange for someone to visit you.

We've given the newsletter a fresh new look, and we hope it brings you value. Lastly, I take this opportunity to wish each of you a happy and successful 2024!

Early-season sugarcane ripening on the KwaZulu-Natal North Coast

Rainfall along the KwaZulu-Natal North Coast during December 2023 was excellent with various weather stations recording rainfall of between 45 to 71% above the long-term mean for December. Similarly, rainfall during the first 10 days of January 2024 was good, with some weather stations already recording more than half of the long-term mean values for the month.



If the favourable rainfall persists, crop growth will remain very vigorous, especially in the seasonal crops. Prolonged good growing conditions will lead to poor cane quality (low juice purity and RV%) in early-season crops if not treated with chemical ripeners. This particularly applies to seasonal crops, but certain unplanned carry-over crops, unaffected by major growth-limiting factors, could also face similar challenges.

Recommendations for ripening of seasonal and unplanned carry-over rainfed crops:

Seasonal rainfed crops:

- Eldana-infested (> 5e/100) seasonal crops should not be ripened, as the chemical effects on the plant are known to intensify infestation. Growers are encouraged to start scouting carry-over fields for eldana from early January.
- Lodged seasonal crops, that have not yet re-established an upward-facing leaf canopy, should not be ripened. The leaf canopy must efficiently intercept chemical spray droplets.
- In seasonal crops not suffering from any of the above, suitability for ripening and chemical choice is determined through visual inspection of crop growth vigour, along with estimating whole-stalk juice purity with a refractometer and the PurEst® smartphone application.

- Good ripening suitability indicators are abundant mature green leaves (ideally more than 8) and whole stalk juice purities of less than 85%.
- Ethephon should only be applied to very immature crops, with whole-stalk juice purities ideally below 75% at the time of spraying. In crops with juice purities above 75% the best ripener chemicals to use will be products containing the active ingredients fluazifop-p-butyl (e.g. Volley®, Orca® or Fusilade Forte®) or trinexapac-ethyl (Moddus® or Tripac®).
- The recommended ripener treatments per variety can be found in the variety response table inside PurEst®. Ensure that you have downloaded the latest version of PurEst® (version 3.01.01, August 2023) from the application store on your smartphone.
- When planning the ripening and harvesting programme, keep the SASRI spray-to-harvest interval guidelines in mind. Spray date guidelines can be obtained in SASRI Information Sheets 4.8 – 4.10 and with the spray date guide calculator in PurEst®. A too short interval between spraying and harvesting will result in missed opportunities because of insufficient time for ripening, while a too long interval can lead to excessive cane yield loss under good growing conditions.
- Optimal spray-to-harvest intervals can easily vary between seasons and varieties. For precision cane quality management, the completeness of the chemical ripening process can be tracked through refractometer testing between spraying and the planned harvest date.



Unplanned carry-over rainfed crops:

- The same conditions as for seasonal crops apply but there are certain additional points to consider. Great care must be taken not to apply chemical ripeners to crops infested with eldana.
- Flowering carry-over crops should also not be ripened due to the general poor growing state of these crops (very few green leaves), profuse side-shooting, high risk of eldana infestation and pith formation that will curtail the ripening process.
- Many rainfed carry-over crops will maintain whole-stalk juice purities above 85%, despite immaturity (low Brix% values) in the upper third, or more, of the stalk. If this immaturity level is high enough, spraying with selected ripener chemicals can still be financially rewarding. The PurEst® smartphone application will automatically inform the user when testing of crops in this category takes place.
- Whole-stalk juice purities in carry-over crops will in most cases be too high to warrant the use of Ethephon. The use of Ethephon in carry-over crops must be avoided because of detrimental consequences including loss of maturity and intensification of eldana infestation. Products with the active ingredient fluazifop-p-butyl or trinexapac-ethyl are suitable for use in carry-over crops in need of ripening.
- Chemical ripening is not the only intervention that can be considered to manage cane quality in carry-over crops. If immaturity (lower Brix% values) only affects a few internodes below the apical meristem a downward adjustment of topping-height could be a better solution to manage cane quality, especially in carry-over crops that were not suitable for treatment on the required spray date.

Newsflash: Minikin 250EC (active ingredient trinexapac-ethyl) is a new ripener / growth regulator that has been registered for sugarcane. Please contact your local chemical agent for further information.



For further details on this matter or any additional information, please don't hesitate to reach out to me (details above).