

# KOMATIPOORT EXTENSION MATTERS



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## Ripener recommendations for the irrigated varieties

Based on the latest ripener research results, here are the latest recommendations for ripener application on Irrigated Varieties.

Variety	Ethephon	Fusilade Forte	Combination	Moddus	Combination	Interim recommendation (Only for varieties with no or limited trial data currently)
	(and other trade names)	(and other trade names)	Ethephon + Fusilade (and other trade names)	(and other trade names)	Moddus + Fusilade (and other trade names)	
	Juice purity below 75%	Juice purity below 85%**	Juice purity below 75%	Juice purity below 85%**	Juice purity below 80%	
N14	Not recommended	Recommended	Not recommended	Unknown	Unknown	-
N19	Recommended	Recommended	Highly recommended	Unknown	Unknown	-
N23	Recommended	Recommended	Recommended	Not recommended	Currently in testing	-
N25	Recommended	Recommended	Highly recommended	Recommended	Currently in testing	-
N36	Recommended	Recommended	Highly recommended	Recommended	Currently in testing	-
N40	Recommended	Recommended	Recommended	Unknown	Unknown	-
N41	Recommended	Recommended	Highly recommended	Recommended	Unknown	-
N43	Recommended	Recommended	Not recommended	Recommended	Currently in testing	-
N46	Not recommended	Recommended	Not recommended	Recommended	Currently in testing	-
N49	Recommended	Recommended	Not recommended	Recommended	Currently in testing	-
N53	Recommended	Recommended	Not recommended	Recommended *	Currently in testing	-
N57	Recommended	Recommended	Highly recommended	Recommended	Currently in testing	-
N70	Currently in testing	Currently in testing	Currently in testing	Currently in testing	Currently in testing	Fusilade Forte
N71	Currently in testing	Currently in testing	Currently in testing	Currently in testing	Currently in testing	Fusilade Forte
N73	Currently in testing	Currently in testing	Currently in testing	Currently in testing	Currently in testing	Fusilade Forte

\* **N53:** Under marginal growing conditions (e.g., shallow soils, drought/restricted irrigation water supply) cane yield in variety N53 may be excessively reduced despite a good RV% response

\*\* The use of this treatment could be considered if refractometer measurements reveal sufficient immaturity in the top third of stalks despite estimated whole-stalk juice purities being above 85%. The PurEst<sup>®</sup> application automatically informs users of this.

## Important information on the use of chemical ripeners on sugarcane:

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- Refer to SASRI Information Sheets 12.1, 12.2, 12.3, 12.4 and 12.5 for detailed information
- Take note of the RCL ripener subsidy rules and orders to be done through the InfoPack Ripener App module.
- Only use registered ripener products. Apply according to the recommendations on the label and according to the applicable legislation. Do not exceed registered application rates or reduce the application water volume of 30 L/ha.
- Adhere to the SASRI guidelines for spray-to-harvest-intervals, with not more than one week reduction in the spray-to-harvest-interval being accepted, except where it can be proved there were factors beyond the Grower's control (e.g., accidental fire).
- Only ripen vigorous growing cane with 8 or more healthy, green leaves and with sufficient soil moisture to maintain active photosynthesis after application of ripeners
- Do not ripen cane with juice purity above 85%, unless the PurEst<sup>®</sup> app indicates otherwise (see table footnote above).
- Cane age should not exceed 12 months at time of application. If there are exceptional circumstances where the cane appears to be suitable for ripening, the growers must:
  - ⇒ Do refractometer readings for the PurEst<sup>®</sup> app to generate a recommendation;
  - ⇒ Request an eldana inspection to be done by the LLPD&VCC inspection team; and
  - ⇒ Contact RCL Cane Supply Department to discuss potential deviations from this age limit based on the above PurEst<sup>®</sup> and eldana inspections results.
- Do not ripen cane infected with diseases, with high insect damage or with more than 20% flowers.
- Do not ripen cane suffering from water stress (too dry or too wet).
- Ensure there is a sufficient buffer between the field and any human activities, water bodies, sensitive crops, obstructions, or natural areas.



## Principles underlying chemical ripening and late-season quality maintenance:

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Ripeners can be used for **chemical ripening**, to improve low cane quality caused by prolonged periods of vigorous growth OR for **late-season quality maintenance** to maintain high quality when vigorous growth resumes after winter.

For ripening or quality maintenance to be successful it is critical that:

- There are sufficient open, healthy, green leaves to produce sucrose. Crop with less than seven leaves become unsuitable and below four leaves no sucrose accumulation will happen.
- There must be sufficient leaf canopy to absorb the ripener chemical. Ripening of lodged cane will therefore be less successful
- Sufficient moisture is required for the leaves to function optimally. Excessive drying-off will be detrimental.
- Any form of stress (limited water, waterlogged conditions, diseases, pests, etc.) will limit the success of ripening.
- There is no need to guess about ripening. With the use of refractometer readings and results from the PurEst<sup>®</sup> app, ripening can be done accurately, thereby optimising sucrose yield and limiting potential losses.

# Ripener recommendations

## 1. Early-season Volley (or other trade names) only treatment programme for ripening:

- Apply on cane with juice purity below 85%. Where juice purity exceeds 85% only apply ripener based on refractometer readings and PurEst<sup>®</sup> results.
- Spray-to-harvest intervals range between 6 – 10 weeks, depending on harvest month. Consult SASRI Information Sheet 12.4 or PurEst<sup>®</sup> for spray date guides.
- Registered aerial application rates are 330 ml/ha for the 125 g/L formulation (Volley, Orca, etc.) or 225 to 275 ml/ha for the 150 g/L formulation (Fusilade Forte), in 30 litre water per hectare.
- Suitable for application from January to the end of the second week of May.
- From the start of the 3rd week in May to the end of July only apply ripener based on refractometer readings and the PurEst<sup>®</sup> results, done 1 to 2 weeks before planned application. For ripener subsidy during this time, submit results via the Ripener App to Cane Supply.

## 2. Early-season Moddus (or other trade names) only treatment programme for ripening:

- Apply on cane with juice purity below 85%. Where juice purity exceeds 85% only apply based on refractometer readings and PurEst<sup>®</sup> results.
- Spray-to-harvest intervals range between 7 – 10 weeks depending on harvest month. Consult SASRI Information Sheet 12.5 or PurEst<sup>®</sup> for spray date guides.
- Registered aerial application rates are 1 litre/ha in 30 litre water per hectare.
- Application from December to the end of the second week of May.
- From the start of the 3rd week in May to the end of July only apply ripener based on refractometer readings and the PurEst<sup>®</sup> results, done 1 to 2 weeks before planned application.

## 3. Early-season Ethephon and Volley (or other trade names) combination treatment programme for ripening:

- Only apply Ethephon on cane with juice purity below 75%. Ethephon treatment on cane with juice purity above 75% can have serious negative effects.
- Registered aerial application rates are Ethephon 1.5 litre/ha, 12 weeks before harvest followed by Volley at 330ml/ha five to six weeks later.
- Apply Ethephon only up to the end of April. Do not use combination treatment in late season
- Do not ripen cane older than 10 months (at application) with Ethephon.
- See variety responses to combination treatment.

## 4. Early-season Moddus and Volley (or other trade names) Combination treatment programme for ripening:

- Apply Modus-Volley combination treatment only on cane with juice purity below 80%.
- Registered aerial application rates are Moddus 0.8 litre/ha, 10 weeks before harvest followed by Volley at 330ml/ha 4 weeks later.

## 5. Late-season quality maintenance programme:

- To maintain high cane quality following natural ripening during winter, Volley or Moddus (or other trade names) can be applied in August to October. This will maintain the high RV% during late spring and early summer by preventing the crop to resume vigorous growth.
- The crop will most likely be slow growing and at peak maturity (high juice purity) at time of product application.
- Decisions to spray these crops must be done on merit and a field-by-field basis.
- At spraying the leaf canopy must be in a good vegetative state (7 or more open, healthy, green leaves) and there must be adequate soil moisture (irrigation) reserves to prevent moisture stress for 6 weeks.
- Registered aerial application rate for Volley is 330 ml/ha at six to eight weeks before harvest and for Moddus 1 L/ha seven to ten weeks before harvest. Consult SASRI Information Sheets 12.4 & 12.5 or PurEst<sup>®</sup> for spray date guides.

Feel free to contact me with any questions or for specific advice.