Environmental & Cultural Considerations For PGR Applications

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INTERNODE LENGTH

- Length of 4th Internode from terminal *(Fig. 1 and Fig. 2 on back)*

VARIETY

- Determinate vs Indeterminate

SOIL MOISTURE

- Avoid applications in deficit situations
- Plant height can be a good indicator

WEATHER FORECAST

- Avoid applications under hot and dry conditions in the next 5 to 7 weather forecast

FIELD PRODUCTIVITY

- Fertility, irrigation capacity, and soil type
- Know field history regarding yield and height potential
- Plant height can be a good indicator (current height vs historical height)

FRUIT LOAD

- Lower rates may be needed if retention and fruit load is high
- Higher rates may be needed if significant shed has occurred
- Node Above White Flower (NAWF) should be 7 to 10 during early to peak bloom (Fig 1.)

PEST PRESSURE

- Insects, weeds, nematodes, and diseases can affect growth rate

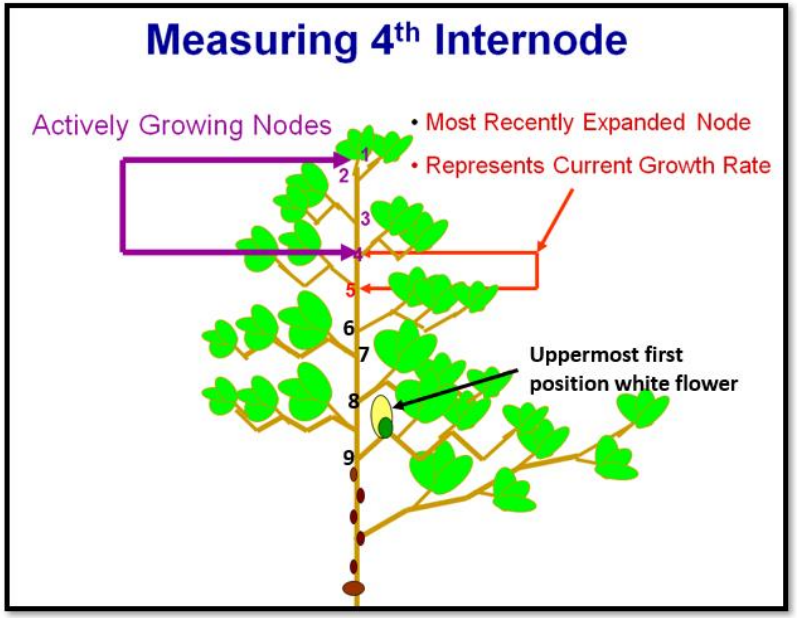

Fig. 1. Plant in diagram shows the location of Internode 4 and NAWF 9.

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Target Growth Rate for PGR Applications

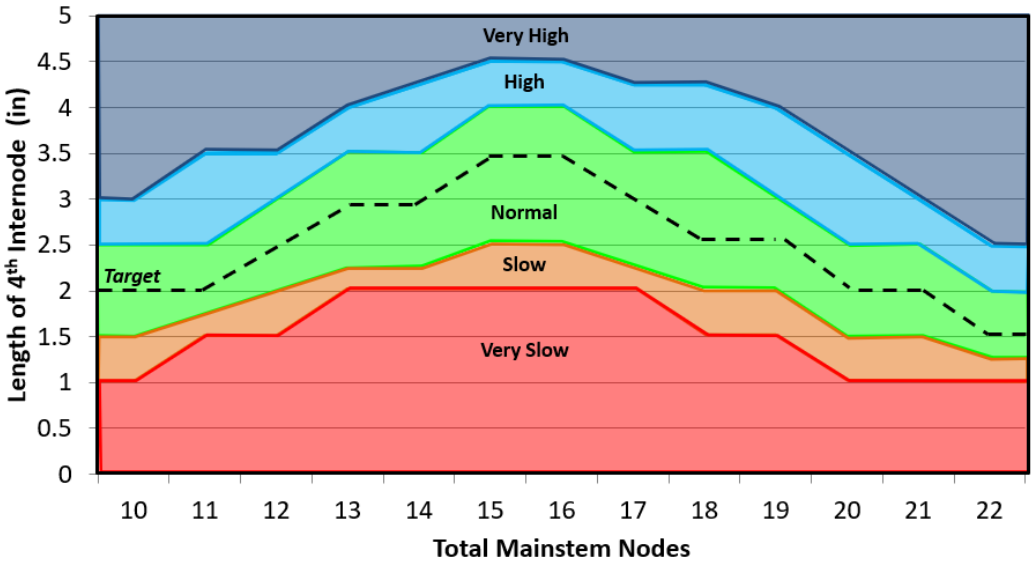

Fig.2. Target growth rate as determined by length of 4th internode at various total mainstem node stages

Determine mainstem nodes by counting from cotyledonary node (count as zero), up to the terminal leaf node (unfurled, about size of a quarter). Measure 4th internode length (Fig 1.). If 4th internode length is within normal, slow, or very slow range, consider not applying mepiquat chloride. If 4th internode length is high or very high, consider applying mepiquat chloride.

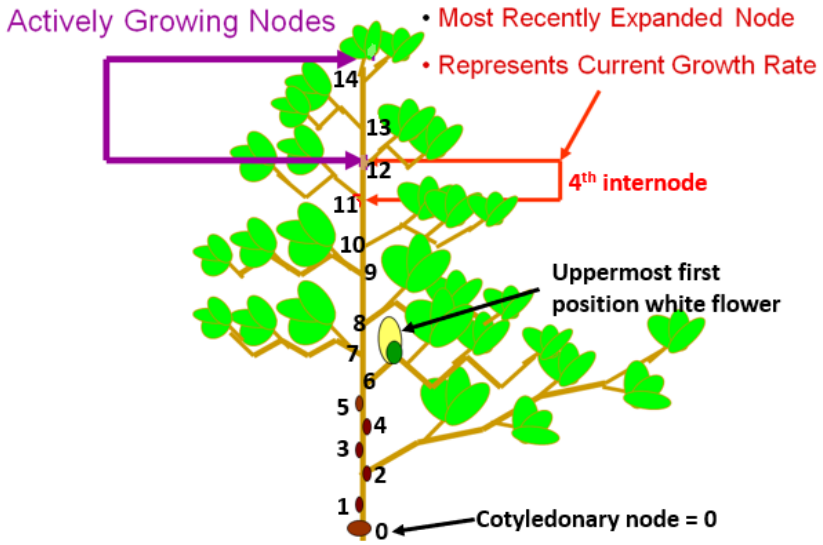

Fig.3. Diagram shows 14 mainstem nodes.

If after examining the field and considering all the environmental and cultural factors, it is difficult to decide if a PGR application is warranted, wait 5 to 7 days and monitor the field and the conditions.