Moddus on Sugarcane –
A Reliable Plant Growth Regulator
Moddus on Sugarcane –
Boosting Yields, Enhancing Efficiency

The latest Syngenta product for sugarcane management, Moddus™ is a foliar absorbed plant growth regulator (PGR) that has been shown to increase sugar yields. The active ingredient, trinexapac-ethyl, can extend the window between application and harvest (28 to 60 days), giving growers greater harvest flexibility under adverse weather. Moddus also improves harvest efficiency by reducing lodging of the sugarcane crop and in Brazilian trials, Moddus demonstrated root growth stimulation, resulting in better water and nutrient use efficiency.

Moddus can be used for two different purposes in sugarcane: harvest management to increase sugar yield and shortening of internodes for seed piece production. The features and benefits Moddus offers growers set the stage for a successful season.

Moddus Features and Benefits

- Boosts sugar yield without reducing cane yield, increasing grower profits
- Accelerates natural ripening process, allowing growers control over maturity
- Inhibits gibberellic acid (GA), a plant hormone responsible for cell elongation
- Allows growers to extend window between application and harvest up to 60 days

- Exhibits no residual effect (no delayed emergence) on ratoon crop following application
- Helps with lodging, improving harvest efficiency
- Good crop tolerance
- Stimulates root growth (Brazilian observations)
The Moddus Advantage

In field trials, sugarcane treated with Moddus clearly has the advantage over untreated sugarcane. As seen in the following data, Moddus-treated sugarcane increases sugar yield without reducing cane yield per acre. In addition, with the excellent growth regulation activity, Moddus helps reduce lodging and improve harvest efficiency.

Increased Sugar Yield

Moddus increases sugar yield per ton without reducing cane yield per acre.

![Graph showing sugar yield change from untreated check.]

- **Average gain:** 19.3 lb/ton
- **Range:** 6.0 to 36.8 lb/ton
- **Median:** 18.6 lb/ton

86% of trials with sugar yield above 10 lb/ton, n=36 data points. All trials in LA. Use rate: 11–19 fl oz/ac.

Harvest Efficiency

Moddus simultaneously reduces crop height, mitigates lodging and improves harvest efficiency.

![Graph showing seed piece production and harvest efficiency.]

- **Seed Piece Production:**
  - Check: 89
  - Moddus 4.6 oz: 88
  - Moddus 9.5 oz: 85

- **Lodging:**
  - 67% for Check
  - 8% for Moddus 4.6 oz
  - 1% for Moddus 9.5 oz

- **Harvest Efficiency:**
  - Check: 8
  - Moddus 4.6 oz: 8
  - Moddus 9.5 oz: 10

*Ease of Harvest: 1–10 with 10 best

USSA0P104/2009/TX/Krupala. Variety: 3388. Applied 6 nodes (6/12/09) and 12 nodes (7/7/09).
Use Recommendations to Manage Growth and Sugar Yields

<table>
<thead>
<tr>
<th>Crop</th>
<th>Use Rate (fl oz/A)</th>
<th>Use Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugarcane</td>
<td>11–19</td>
<td>Apply Moddus 28–60 days prior to harvest to increase sugar yield and/or extend harvest window.</td>
</tr>
</tbody>
</table>

**Specific Use Restrictions**

1. When applied as a ripener, Moddus may be applied until 28 days prior to harvest (28 day PHI).

2. Do not apply more than 19 fl. oz. Moddus per acre per crop season.

3. Do not apply to cane under stress from lack of water, poor fertilization, abnormal temperatures or disease.

4. Results may vary according to the variety.

5. Crop tolerance: Moddus has been shown to be safe at the rates, timings, and varieties tested. Some varieties may be more sensitive and exhibit symptoms such as stunting. Under normal agricultural conditions, the affected plant will resume growth.

**Use Recommendation for Seed Piece Production (internode shortening)**

<table>
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</tr>
</thead>
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<tr>
<td>Sugarcane</td>
<td>4–12</td>
<td>Make a minimum of two split applications of Moddus. Make first application of 4–12 fl. oz./A when six fully developed full size leaves have appeared. Note the bottom leaf should be feeding internodes above the soil surface. Make second application of 4–12 fl. oz./A when six additional fully developed full-size leaves have appeared. The total amount applied per acre per crop season should not exceed 19 fl. oz./A.</td>
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