The new BiG M 450 CR with conditioning rolls creates 3 equal-sized windrows for faster dry down.
The Test

Objective

Compare Dry Down, Mowing Capacity and Fuel Efficiency between the Krone Big M 450 CR Self-Propelled Mower Conditioner and similarly equipped Self-Propelled Windrowers.

Performance Test Overview

Date: July 2, 2019
Location: Coronado Dairy, Cochise County, Wilcox, Arizona

Participants

- Equipment drivers: Provided by Crane Harvesting
- Test was observed by Arizona State Cooperative Extension Service
- Equipment settings: Krone Sales and Marketing professionals

Equipment/Settings

- BiG M 450 CR Self-Propelled Mower Conditioner with rotary discs and steel M roll conditioning rollers
- Self-Propelled Windrower (competitive model) with rotary discs and steel conditioning rollers
- Both mowers were set to the manufacturers’ recommended settings for maximum conditioning.

Crop Details

- Irrigated alfalfa (14-16” height)
- 120-acre fields under center pivot irrigation
- All fields had uniform growth, and were at early (10%) flower growth stage
- Stubble height was set at 4 ½” for both mowers

Testing Procedures

- Both mowers began mowing at 6:55 a.m.
- 3 samples were taken at 1, 5 and 9 hours after cutting began
- All samples came from the same area of the field for the respective mower
- Specimens were taken from 5 random areas of the field and mixed to achieve a fair and averaged sample

The Results

Dry Down Comparison

<table>
<thead>
<tr>
<th>Moisture (%)</th>
<th>1 hour</th>
<th>5 hours</th>
<th>9 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BiG M 450 CR</td>
<td>72%</td>
<td>56%</td>
<td>45%</td>
</tr>
<tr>
<td>SP Mower Conditioner</td>
<td>75%</td>
<td>61%</td>
<td>51%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dry Matter (%)</th>
<th>1 hour</th>
<th>5 hours</th>
<th>9 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BiG M 450 SPMC</td>
<td>28%</td>
<td>44%</td>
<td>55%</td>
</tr>
<tr>
<td>SP Mower Conditioner</td>
<td>25%</td>
<td>39%</td>
<td>49%</td>
</tr>
</tbody>
</table>

What that means: 6% difference equates to 12% faster dry down with the BiG M 450 CR

Mowing Capacity Comparison

<table>
<thead>
<tr>
<th>Mowing Capacity</th>
<th>Acres per Hour*</th>
</tr>
</thead>
<tbody>
<tr>
<td>BiG M 450 CR</td>
<td>36.78</td>
</tr>
<tr>
<td>SP Mower Conditioner</td>
<td>16.93</td>
</tr>
</tbody>
</table>

What that means: The Big M 450 CR proved it can mow more than twice the number of acres than what two SP Mower Conditioners can mow. That’s 3 more acres per hour equaling 30 more acres mowed over a 10-hour day.

Fuel Efficiency

<table>
<thead>
<tr>
<th>Cylinders</th>
<th>Emission Standard</th>
<th>Displacement</th>
<th>Rated Horsepower</th>
</tr>
</thead>
<tbody>
<tr>
<td>BiG M 450 CR</td>
<td>6</td>
<td>Tier IV Final</td>
<td>12 L</td>
</tr>
<tr>
<td>SP Mower Conditioner</td>
<td>6</td>
<td>Tier IV Final</td>
<td>6.7 L</td>
</tr>
</tbody>
</table>

Big M 450 CR: .6 gallon per acre
SP Mower Conditioners: .64 gallons per acre
What that means: There was not statistically significant difference with fuel usage per acre mowed.

Overall Test Results

When compared to what two (2) SP Mower Conditioners can do, the Krone BiG M 450 will deliver:

- Faster Dry Down
  - Balers/choppers get to work sooner
  - Best opportunity for harvesting the highest quality forage
- Greater Mowing Capacity
  - 30 more acres moved over a 10-hour period
  - Mowing more acres faster increases profitability
- Greatly Reduced Labor Costs
  - Cost-saving calculations (one operator vs. two)
    - Labor Cost of $20/hour
    - $200 labor cost savings per 10-hour day
    - $1,200 labor cost savings per 6-day week

Bottom Line: Krone Big M 450 can deliver greater Return on Investment.