Using Soybean Harvest Aids

Key Points

- Soybean harvest aids are used to desiccate weeds and physiologically mature soybean plants.
- Applying harvest aids may result in earlier harvest, higher quality grain, and increased harvest efficiency.
- Always read the herbicide product label for application timing, adjuvant to be added, pre-harvest interval, and other requirements as there are differences among harvest aid products.

Herbicide harvest aids applied to soybean fields are used to control or desiccate weeds and the green tissue (pods, leaves, and stems) on physiologically mature soybean plants. Using harvest aids may result in earlier harvest, higher quality grain, and increased harvest efficiency.

Considerations When Using Harvest Aids

Applying a harvest aid may be an option when soybean plants have green leaves and stems but pods are mature and ready for harvest. Full maturity growth stage (R8) is defined as when 95% of the pods have reached their mature pod color (Figure 1). Generally 5 to 10 days of drying weather are required after reaching R8 growth stage before soybean seed contain less than 15% moisture content. Also, harvest aids can be used to desiccate high populations of weeds, in place of waiting for a “killing frost”. If a harvest aid is used, consider the following:

- Weeds that are drought stressed may not be effectively desiccated.
- Harvest aids such as paraquat do not remove excessive moisture from seeds. Adding sodium chlorate to a desiccant may help remove excessive moisture from green soybean tissue and/or seed, as well as weed vegetation.
- If possible, do not apply a harvest aid herbicide just before a rain.
- Using a pre-harvest desiccant may not result in a yield increase.

Application Timing

Check the herbicide product label for application timing as there are differences among harvest aid products. Also, some products may vary in application timing depending on whether the soybean product is a determinate or indeterminate type soybean (Table 1). Consider randomly collecting pods from plants throughout the field and examine pod and seeds to determine if the field meets the criteria for an application specified by the product label. Herbicide product application prior to label guidelines may reduce yield potential and seed quality.

Using Harvest Aid Products

Each potential herbicide harvest aid has unique properties and label requirements (Table 1). Products may differ in desiccation dry-down time, required adjuvant(s) to be added to the spray tank, pre-harvest time interval, minimum gallons of spray solution applied per acre and other use requirements. Please check the product label prior to use for specific requirements and precautions.

Adequate spray coverage is essential for successful use of contact herbicides, which only injure the plant material the spray solution contacts. Gramoxone® SL, a contact herbicide, may provide the quickest desiccation of soybean plants and for ground application should be applied in at least 20 gallons of water/acre for good coverage. Translocated, also referred to as systemic, herbicides such as Roundup WeatherMAX®, Clarity®, or Sharpen® are taken up and move through the plant requiring more time for more complete activity. Tank mixtures may be needed to provide the best combination of crop desiccation and weed management. When using tank mixtures, always follow the most restrictive pre-harvest interval and other requirements.
## Table 1. Recommendations for the use of some harvest aid products for soybean.  

<table>
<thead>
<tr>
<th>Product</th>
<th>Timing</th>
<th>Rate/acre</th>
<th>Pre-harvest Interval</th>
<th>Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roundup WeatherMAX®</td>
<td>Genuity® Roundup Ready 2 Yield® Soybean After pods have set and lost all green color.</td>
<td>22 fl oz/acre</td>
<td>14 days</td>
<td>See label for grazing, hay or fodder preharvest interval.</td>
</tr>
<tr>
<td>Roundup WeatherMAX®</td>
<td>Non-glyphosate resistant soybean. After pods have set and lost all green color.</td>
<td>Aerial (max rate) 44 fl oz/acre Ground (max rate) 3.3 qt/acre</td>
<td>7 days</td>
<td>See label for grazing, hay or fodder preharvest interval.</td>
</tr>
<tr>
<td>Gramoxone® SL</td>
<td>Indeterminate Seed Products - at least 65% of pods are a mature brown color or when seed moisture is 30% or less. <strong>Determinate Seed Products</strong> - beans are fully developed, 1/2 of the leaves have dropped and the remaining leaves are yellowing. Immature soybeans will be injured.</td>
<td>8 - 16 fl oz/acre</td>
<td>15 days</td>
<td>Do not graze or harvest for forage or hay.</td>
</tr>
<tr>
<td><em>Sharpen® (powered by Kixor® Herbicide)</em></td>
<td><strong>Indeterminate Seed Products</strong> - greater than 65% brown pods and greater then 70% leaf drop or when seed moisture is 30% or less. <strong>Determinate Seed Products</strong> - beans are fully developed, greater than 60% leaf drop and remaining leaves are yellowing.</td>
<td>1 - 2 fl oz/acre</td>
<td>3 days</td>
<td>Do not graze or feed hay or straw to livestock. Do not apply on soybean grown for seed production.</td>
</tr>
<tr>
<td><em>Aim® EC</em></td>
<td>Crop is mature and grain has begun to dry down. Applied to defoliate and/or desiccate troublesome broadleaf weeds e.g. morningglories, pigweeds, and velvetleaf that may be present at harvest.</td>
<td>1.0 - 1.5 fl oz/acre</td>
<td>3 days</td>
<td>Do not feed treated soybean forage or soybean hay to livestock.</td>
</tr>
<tr>
<td><em>Clarity®</em></td>
<td>Pods have reached mature brown color; at least 75% leaf drop has occurred.</td>
<td>8 - 32 fl oz/acre</td>
<td>7 days</td>
<td>Do not feed soybean fodder or hay following application.</td>
</tr>
</tbody>
</table>

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**Work with your Channel Seedsman for managing the weed populations in your field.**

*Do not use for pre-harvest in California.*

**Sources:**


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