Preemergence Applications for Winter Wheat in Idaho, Montana, Oregon, and Washington

Zidua® Herbicide Crop Safety When Applied Preemergence:

- Zidua herbicide applications can cause wheat injury
- The likelihood of injury increases under the following conditions:
  - Improper and uneven seeding depth
  - Heavy rainfall after application prior to wheat emergence
  - Open or cracked seed furrows
  - Deep seed furrows that allow Zidua herbicide concentration after a rain event
- Wheat response to Zidua herbicide is most often visible as stunting and/or discoloration of leaf tissue (e.g., chlorosis), but in severe cases can result in stand loss and yield reduction

Best Management Practices for Preemergence Applications in Winter Wheat:

- Plant wheat between 1 and 1.5 inches deep
  - If planted into loose powdery soil, crop injury may occur if soil settles and reduces planting depth
- The seed furrow must be completely closed
- Apply only to a uniform clod free seedbed
- Do not apply preemergence if 0.5" or more of rain is expected before germination
- Avoid application if a long period of rain is anticipated before wheat emergence
Steps to Determine Application Timing

1. Step on Furrow to Ensure Firm Seedbed
2. Measure Seed Depth

3. Choose your application timing based on seed depth

<table>
<thead>
<tr>
<th>Seed Depth</th>
<th>Application Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 1” and 1.5”</td>
<td>Preemergence</td>
</tr>
<tr>
<td>Less than 1” or over 1.5”</td>
<td>Delayed Preemergence*</td>
</tr>
</tbody>
</table>

*Defined as when 80% of the wheat seedlings have a shoot length of at least 0.5”.

Best Use Recommendations

- Select the rate based on soil type (see table)
- Preemergence surface: apply after planting but before wheat spiking
- Zidua® herbicide may be applied in a sequential application program where preemerge application is followed by an early postemergence application

Restrictions and Limitations:
Reference Zidua herbicide supplemental label

Grass Weeds Controlled or Suppressed:
- Italian ryegrass-control
- Rattail fescue-control
- Annual Bluegrass-control
- Downy brome-suppression
- Japanese brome-suppression

Application Rate

Apply Zidua herbicide alone, in tank mix, or sequentially in winter wheat at the residual rates in the table following.

<table>
<thead>
<tr>
<th>Application Timing</th>
<th>Coarse</th>
<th>Medium</th>
<th>Fine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preemergence</td>
<td>DO NOT USE</td>
<td>1.0 to 1.5</td>
<td>1.25 to 1.75</td>
</tr>
</tbody>
</table>

1 Refer to Zidua herbicide container label for definition of soil-texture groups.

Italian Ryegrass Control – Moscow, ID

Untreated | Zidua Herbicide 1.5 oz