An innovative pre-emergent herbicide that offers a high level of residual control of annual ryegrass including biotypes resistant to existing herbicide mode of action groups including Group K.
Luximo® Herbicide will set a new standard for consistent pre-emergent control of annual ryegrass populations, including those with developed resistance to other herbicides, under varying autumn soil moisture conditions.

Luximo has been developed for use in Australian wheat (not durum wheat) and is expected to be registered in time for use in the 2020 crop. Once registered, Australian growers will become the first farmers in the world with the chance to utilise its advantages in wheat over other products.

**Product formulation**

Luximo® Herbicide is the active ingredient powering this new pre-emergent herbicide which will be available in an emulsifiable concentrate (EC) formulation with a high active loading. This high loading will make Luximo effective at low application rates.

**Mode of action**

Luximo is the only herbicide in a class of chemistry known as the cineoles. Its novel mode of action is based on inhibition of fatty acid thioesterase (FAT), which irreversibly disrupts cell membranes and damages emerging plant tissue. In pre-emergence treatments, seedlings quickly become unable to survive and grow.

This unique mode of action means the molecule has no known cross-resistance and will play an integral role in maintaining the effectiveness of integrated weed control programs. For resistance management purposes, Luximo is currently classified as a Group Z.

**Activation**

Luximo should be incorporated by sowing (IBS) using knife points and press wheels within 3 days of application. To ensure necessary separation of the seed from the herbicide treated band, sowing depth should be a minimum of 2.5cm. Sufficient rainfall is then required within 10 days of application for reliable activation.

**Residual control**

Trials have shown that Luximo provides up to 12 weeks’ residual control of annual ryegrass, which matches the benchmark set by the current leading pre-emergent products.

**Consistency across varying conditions**

Recent experience has shown that herbicide solubility plays an important role in the effective incorporation and activation of pre-emergent herbicides. Luximo has a good balance of solubility and soil binding, and
in development trials has achieved more consistent results across different autumn conditions when compared to some other pre-emergent cereal herbicides.

**Plantbacks**

Luximo has limited persistence in the soil compared to other pre-emergent herbicides, so it has favourable plantbacks that provide plenty of flexibility in managing crop rotations. Application-to-sowing intervals are typically 9 months for winter crops and 3 months for summer crops.

**Stubble and weed cover management**

As with other pre-emergent herbicides, applying Luximo where the stubble coverage or ground cover from weeds is over 50% could adversely affect weed control.

**Integrated Weed Management (IWM)**

While Luximo will control annual ryegrass that has developed resistance to herbicides from Group K and other mode of action groups, it should always be used as part of an integrated weed management (IWM) strategy. Such strategies will include non-chemical methods as well as herbicides with different modes of action.

**Luximo delivers strong and consistent pre-emergent control of annual ryegrass**

![Untreated](image1) ![Luximo active ingredient by BASF](image2) ![Prosulfocarb + S-metalochor](image3) ![Pyroxasulfone](image4)

**Key Benefits**

- Controls ARG resistant to other herbicides
- Up to 12 weeks residual control of ARG
- More consistent results each season
- Excellent crop rotation flexibility
- Strengthens existing IWM strategies
- Helps to reduce the ARG weed seed bank

**REGISTRATION PENDING**

Luximo active ingredient by BASF herbicide from BASF is currently under evaluation by the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA approval of this new herbicide in wheat is expected in time for use in 2020.
## Overview of Luximo active ingredient by BASF

<table>
<thead>
<tr>
<th>Crops</th>
<th>Wheat (excluding durum wheat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weed Claims</td>
<td>Control of annual ryegrass; suppression of brome grass and wild oats Development work is continuing to identify other possible weed claims</td>
</tr>
<tr>
<td>Application Rate</td>
<td>500 mL/ha</td>
</tr>
<tr>
<td>Herbicide MoA Group</td>
<td>As Luximo controls the annual ryegrass biotype resistance to pyroxasulfone and has no known cross resistance, Luximo is expected to be classified as a new herbicide mode of action in its own unique group. For resistance management purposes, Luximo has currently been classified as Group Z.</td>
</tr>
<tr>
<td>Application Method</td>
<td>Apply using standard spraying equipment in 70-150L water per ha with a medium spray quality and incorporated by sowing (IBS), ideally immediately, or within 3 days of application.</td>
</tr>
<tr>
<td>Compatibility</td>
<td>Luximo is compatible with glyphosate, paraquat, Sharpen WG Herbicide and trifluralin.</td>
</tr>
<tr>
<td>Incorporation Method and Seeding Depth</td>
<td>IBS using only knife points and press wheels to ensure good separation between herbicide and seed and closure of the planting row. Planting equipment should be set up to ensure seed is planted well below the treated band (minimum 2.5cm sowing depth).</td>
</tr>
<tr>
<td>Residual Control</td>
<td>Up to 12 weeks residual control, comparable to leading pre-emergent standards in trial work to-date</td>
</tr>
<tr>
<td>Plant Backs</td>
<td>Luximo has a favourable re-cropping profile with a 9-month plant back for key rotational crops such as barley, oats, canola and winter pulses</td>
</tr>
</tbody>
</table>

For more information on Luximo, visit [crop-solutions.basf.com.au](http://crop-solutions.basf.com.au) or contact your local BASF representative on 1800 558 399

**ALWAYS READ AND FOLLOW LABEL DIRECTIONS.**
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