Loyant® herbicide with Rinskor™ active is a new arylicolinate herbicide. Loyant has global utility in seeded rice and provides a solution for weed resistance issues in U.S.-grown rice. The product has broad-spectrum activity on important grass, sedge, and broadleaf weed species, utilizes low use rate technology, and exhibits excellent crop tolerance in rice.

**Product Attributes**
- Post-emergence control of economically-important grass, broadleaf, and sedge weeds, including ALS-, ACCase-, HPPD-, propanil-, quinclorac-, glyphosate-, and triazine-resistant species
- Alternative mode of action in rice
- Low use rate
- Consistent weed control across variable conditions/water management
- Rice is tolerant to Loyant in medium- and long-grain varieties and hybrids
- Rapid degradation in soil and tolerant plant tissue
- Favorable environmental fate, toxicology, and ecotoxicology profiles

**Control of Resistant Weeds**
Globally, Loyant herbicide has demonstrated control of grass, sedge, and broadleaf weed species that have developed tolerance/resistance to other herbicide sites of actions.

Examples of these types of chemistries:
- **ALS Inhibitors**: bispyribac, imazamox, imazethapyr, imazapic, penoxsulam, halosulfuron, bensulfuron, metazosulfuron, metsulforon, pyrazosulfuron, pyribenzoxim, propyrisulfuron
- **ACCase Inhibitors**: cyhalofop-butyl, fenoxaprop, profoxydim, metamifop
- **Pigment Inhibitors**: mesotrione, tebufenpyr, terbutrine, terboprin, benzobicyclon, clomazon
- **EPSP Synthase Inhibitor**: glyphosate
- **Other chemistries**: glyphosate, propanil, quinclorac, clomazone, atrazine
- **Photosynthesis Inhibitor**: atrazine, propanil

**Key Weed Species Controlled in U.S. Rice**

**Grass Control**
- Barnyardgrass
- Junglerice
- Broadleaf signalgrass
- Tighthead Sprangletop*

**Sedge Control**
- Smallflower umbrellasedge
- Yellow nutsedge
- Rice flatsedge
- Purple nutsedge
- Rough-seed clubrush

**Broadleaf/Aquatic Control**
- Velvetleaf
- Jointvetch
- Redstem
- Pigweed (includes palmer amaranth and redroot)
- Ragweed
- Common lambsquarters
- Horseweed
- Alligatorweed
- Pitted morningglory
- Redweed
- Spreading dayflower
- Ducksalad
- Falsepimpernel
- Monochoria
- Arrowhead/bulltongue/grassy arrowhead
- Hemp sesbania
- Cocklebur
- Eclipta
- Redroot pigweed
- Roundleaf mudplantain

*Suppression

1. Partial listing of grass weeds susceptible to Loyant herbicide when used at anticipated label use rates
2. Partial listing of sedge weeds susceptible to Loyant herbicide when used at anticipated label use rates
3. Partial listing of broadleaf wees susceptible to Loyant herbicide when used at anticipated label use rates

**Barnyardgrass Control**

![Untreated Barnyardgrass](image1)

![Treated Barnyardgrass](image2)
Formulation
Loyant® herbicide is formulated as a liquid NeoEC™ formulation. This formulation has been designed to provide excellent tank mix dilution and compatibility properties. A key feature of the NeoEC formulation is that it poses a lower adjuvant need than an SC formulation. It is low in volatile organic compounds (VOCs) and was developed to conveniently deliver the optimal type and level of a built-in adjuvant.

Herbicidal Action
Absorption and Translocation
Loyant is a systemic herbicide mainly absorbed by foliage but also by the roots of plants. It is translocated through the phloem and xylem and accumulates in the meristematic tissue where it exerts its herbicidal action.

Mode of Action
• Loyant represents the latest member of the unique synthetic auxin herbicide chemotype (HRAC group O), the arylpicolinates
• Members of the arylpicolinates demonstrate novel characteristics in terms of use rate, spectrum, weed symptoms, and environmental fate
• The product represents an alternative mode of action for utility in rice and other crops
• Loyant and other arylpicolinates exhibit unique molecular interaction to auxin receptors as compared to other auxin herbicides

Crop Safety
• When used according to label directions, rice exhibits excellent crop tolerance.
• Crop response, in some cultivars that are highly sensitive to herbicides, could be observed with Loyant. For highly sensitive cultivars:
  » Avoid early post applications (< 1 tiller)
  » Ensure the proper interval (14 days) between two consecutive applications of Loyant,
  » Properly calibrate equipment and application to avoid product overlap.
  » For specifics on cultivars and crop response please contact your local representative.

Weed Control
Rice types: Clearfield® Production System and conventional rice
Loyant Rate for US: 1 pint per acre

Duck Salad Control
Untreated | Treated with 1.0 pt/A of Loyant at spooning

Yellow Nutsedge Control
Untreated | Treated with 1.0 pt/A pre-flood of Loyant

Glyphosate-Resistant Palmer Amaranth Control
Untreated | Treated with 1.0 pt/A pre-flood of Loyant

For more information about Loyant herbicide, contact your Territory Manager or visit us at corteva.us.