

A close-up photograph of several rice panicles, showing the golden-brown grains and the green stems. The background is a soft, out-of-focus green, suggesting a rice field. The lighting is bright, highlighting the texture of the grains.

# **CONTROL WEEDS MAXIMIZE YIELD RESULTS**

**RICE HERBICIDE QUICK REFERENCE GUIDE**

# Clincher<sup>®</sup> SF



## HERBICIDE

Clincher<sup>®</sup> SF herbicide is the product of choice for early season grass control. A postemergence grass herbicide, Clincher controls a wide spectrum of annual and seedling perennial grasses in rice, such as barnyardgrass (including ALS-, propanil- and quinclorac-resistant species), sprangletop, knotgrass, broadleaf signalgrass, fall panicum and junglerice.

Clincher offers excellent crop safety while providing superior control of grasses and rescue control of sprangletop.

### Benefits

- Eliminates rotational restrictions
- Controls ALS-, propanil- and quinclorac-resistant barnyardgrass
- Can be tank-mixed with residual herbicides for extended weed control
- May be applied from the one- to two-leaf growth stage to 60 days before harvest

<b>Product Use</b>	Postemergence grass control in rice
<b>Active Ingredient</b>	Cyhalofop-butyl
<b>Formulation</b>	2.38 lb. a.i./gal. (emulsifiable concentrate)
<b>Mode of Action</b>	ACCCase inhibitor
<b>Average Use Rate</b>	10 to 15 oz./A (1 gallon treats 8.5 to 12 acres)
<b>Package/Pallet Size</b>	2.5-gallon bottle; 2 bottles per case; 36 cases on pallet
<b>Adjuvant</b>	Methylated seed oil (MSO) or crop oil concentrate (COC) — minimum of 1qt./A. If a drift control agent is used, weed control may be reduced.
<b>Spray Volume</b>	10 GPA or more and uniform coverage are required for optimum performance. Always use clean water.
<b>Application Timing</b>	1-leaf rice up to 60 days before harvest
<b>Aerial Application</b>	Ten (10) gallons water per acre minimum spray volume. Medium droplet size (175 to 250 microns) with uniform and thorough spray coverage. Straight-stream application (zero deflection) not recommended.
<b>Ground Application</b>	Not recommended
<b>Rainfast</b>	Within two hours after application

### **Tank Mixes**

- Clincher® SF herbicide can only be tank-mixed with NEWPATH, CLEARPATH, BEYOND, Command, Grasp® SC, FACET or PROWL herbicides, as well as fungicides and insecticides. Follow label directions on each respective product label.
- Tank-mixing with nonrecommended herbicides may reduce overall grass control.
- Tank-mixing with Grasp SC may reduce control of broadleaf signalgrass.

### **Water Management**

- Early post application: Apply to muddy soil. Drought stress will reduce weed control. Flush fields as necessary to prevent drought-stress conditions to weeds and crop.
- Post-flood application: Weed foliage must be at least 70 percent exposed from water. Will not control submerged grasses. Apply seven to 14 days following permanent flooding of field. Later applications should be considered rescue treatments, and satisfactory grass control may not be obtained.

### **Application Precautions and Tips**

- For heavy grass densities and/or rescue treatments, sequential application is recommended. Follow the initial 15-oz. application with a sequential 10-oz. application within 10 to 14 days for improved control.
- If Clincher SF is applied as a post-flood salvage treatment to previously untreated areas, fields with previous failed herbicide applications, or areas of extremely high grass weed density, total control of labeled grass weeds should not be expected. Regrowth of these grass weeds may occur.
- Always use clean water with spray mixes of Clincher SF. Do not use water containing rinsate from previous spray solution, even at low concentrations, as this may reduce weed control.
- If drift control agent is used, weed control may be reduced.
- Apply at least five days before or seven days after the application of broadleaf or sedge herbicides.
- If the spray solution pH is >8, a buffering agent should be used to lower the pH to <8.
- For best control, apply when weeds are actively growing and not under stress.
- Corn, milo, sugarcane, other grasses, nectarines and peaches are sensitive to Clincher SF.
- Cotton, soybeans, tomatoes and other leafy vegetables are not sensitive to Clincher SF.

**Application Rates and Weeds Controlled**

**Drill-seeded Rice**

<b>Weeds Controlled</b>	<b>Application Rates and Stage of Weed Development</b>	
	<b>13.5 fl. oz./A</b>	<b>13.5 to 15 fl. oz./A</b>
Amazon (Tighthead) Sprangletop Barnyardgrass Bearded Sprangletop Broadleaf Signalgrass Fall Panicum Johnsongrass (Seedling) Junglerice Red Sprangletop	Up to 4 leaf	Post flood, prior to weed heading
<b>Weeds Suppressed</b>		
Goosegrass Large Crabgrass		

**Water-seeded Rice**

<b>Weeds Controlled</b>	<b>Application Rates and Stage of Weed Development</b>	
	<b>13.5 fl. oz./A</b>	<b>13.5 to 15 fl. oz./A</b>
Amazon (Tighthead) Sprangletop Barnyardgrass Bearded Sprangletop Broadleaf Signalgrass Fall Panicum Junglerice Knotgrass Red Sprangletop	Up to 4 leaf	Mid- to late tillering or branching, prior to weed heading
<b>Weeds Suppressed</b>		
Brook Paspalum Perennial Barnyardgrass Texas Panicum Water Paspalum		

# Grandstand® R

A green line graphic that starts as a horizontal line under the 'Grandstand' text and then angles upwards to the right, ending under the 'R'.

## HERBICIDE

Grandstand® R herbicide is an economical tank-mix partner for excellent control of broadleaf weeds. Grandstand is an excellent alternative in 2,4-D-restricted conventional and CLEARFIELD® rice, and it presents no volatilization concerns.

### Benefits

- Controls rice flatsedge, including ALS-resistant species
- Controls costly black-seeded broadleaf weeds, such as morningglory, northern jointvetch and hemp sesbania
- Can be applied at preplant, pre-flood from two-leaf stage to half-inch internode growth stage and post-flood when weeds are well-emerged above the water's surface
- Fits all tillage practices

<b>Product Use</b>	Postemergence broadleaf herbicide applied either pre-flood or post flood
<b>Active Ingredient</b>	Triclopyr
<b>Formulation</b>	3 lb./gal. Triethylamine salt
<b>Mode of Action</b>	Synthetic auxin or auxin-mimicking
<b>Average Use Rate</b>	½ to 1 pt./A — single application
<b>Package/Pallet Size</b>	2.5-gallon bottle; 2 bottles per case; 36 cases on pallet
<b>Adjuvant</b>	When applied alone, a nonionic surfactant or crop oil concentrate is required for effective broadleaf weed control.
<b>Spray Volume</b>	10 GPA or more and uniform coverage required. Always use clean water.
<b>Application Timing</b>	Drill-seeded rice: 2- to 3-leaf stage or before ½-inch internode elongation Water-seeded rice: 3- to 4-leaf stage or before ½-inch internode elongation
<b>Aerial Application</b>	Ten (10) gallons water per acre minimum spray volume. Coarse to medium droplet size (175 to 375 microns) with uniform and thorough spray coverage.
<b>Ground Application</b>	Ten (10) gallons water per acre minimum spray volume. Do not use air induction or flood-type nozzles. Flat-fan nozzles recommended.
<b>Rainfast</b>	Three hours after application
<b>CLEARFIELD® Fit</b>	Tank-mix 8 to 16 ounces of Grandstand with NEWPATH, CLEARPATH or BEYOND herbicide to control black-seeded broadleaf weeds.

### **Tank Mixes**

- Grandstand® R herbicide can be tank-mixed with NEWPATH, CLEARPATH, BEYOND and most other rice herbicides. Follow label directions on each respective product label.

### **Water Management**

- Grandstand R may be used in both drill- and water-seeded rice culture.
- For water-seeded, do not apply before three- to four-leaf stage or after ½-inch internode elongation stage.
- Do not apply flood water for 72 hours following a pre-flood application.
- Delay raising flood water depth for 48 hours following a post-flood application when water was lowered to expose broadleaf weeds.
- For post-flood applications, flood water depth must be covering the crowns of the rice plants or injury could result.

### **Application Precautions and Tips**

- Weeds should be actively growing; do not apply to drought-stressed weeds.
- Avoid all direct or indirect contact with nontarget plants.
- Nonuniform spray coverage and/or spray volume less than 10 GPA can reduce overall weed control.
- Best weed control results are obtained when applied to small, actively growing weeds, when daytime and nighttime temperatures are warm (60 F or higher) and when soil moisture is adequate to support active weed growth prior to and following application.
- Do not apply after ½-inch internode elongation stage of the rice.
- Application to rice grown on newly leveled ground (except water leveled fields), soils with pH >7.8 or high salt content may result in serious rice injury with a pre-flood application.
- Grandstand also may be used as a burndown at least 21 days before planting drill seed rice and 14 days before planting water seed rice.



**Application Rates and Weeds Controlled**

<b>Weeds Controlled</b>	<b>Grandstand R (pt./A)</b>
Alligatorweed Common Cocklebur Dayflower Eclipta Hemp Sesbania Jointvetch Spp. Morningglory Spp. Redstem Ricefield Bulrush Rice Flatsedge Sicklepod Texas/Mexicanweed Water Hyssop	0.5 to 1 pt.



## HERBICIDE

Rice growers continue to trust Grasp® SC herbicide for postemergence control of annual barnyardgrass species (including propanil- and quinclorac-resistant biotypes), plus many broadleaf weeds and annual sedges.

This versatile performer offers a wide window of application timing and can be applied pre-flood, late pre-flood or post-flood.

### Benefits

- Delivers excellent pre-flood weed control
- Offers three weeks of residual control of barnyardgrass, annual sedges and broadleaves such as smartweed
- Is a good tank-mix partner with other labeled herbicides
- Can be applied from the one-leaf stage to 60 days before harvest
- Aids in resistance management

<b>Product Use</b>	Postemergence herbicide for barnyardgrass, broadleaf weeds and rice flatsedge control in rice
<b>Active Ingredient</b>	Penoxsulam
<b>Formulation</b>	2 lb. a.i./gal. liquid SC (suspension concentrate)
<b>Mode of Action</b>	ALS inhibitor
<b>Use Rate</b>	<b>Pre-flood:</b> 2 fl. oz./A (1 quart treats 16 acres) <b>Post flood:</b> 2.5 fl. oz./A (1 quart treats 12.8 acres)
<b>Package/Pallet Size</b>	1-quart bottle; 4 bottles per case; 4 cases per master case; 18 master cases on pallet
<b>Adjuvant</b>	Methylated seed oil (MSO) or crop oil concentrate (COC) — minimum of 1 qt./A
<b>Spray Volume</b>	10 GPA or more and uniform coverage required. Always use clean water.
<b>Application Timing</b>	1-leaf rice up to 60 days before harvest
<b>Aerial Application</b>	Ten (10) gallons water per acre minimum spray volume. Coarse droplet size (250 to 375 microns) with uniform and thorough spray coverage. Straight-stream application (zero deflection) not recommended.
<b>Ground Application</b>	Ten (10) gallons water per acre minimum spray volume. Do not use air induction or flood-type nozzles. Flat-fan nozzles recommended.
<b>Residual</b>	Grasp SC has soil residual activity on barnyardgrass, annual sedges and some broadleaf weeds for up to three weeks, dependent on soil type and environmental conditions
<b>Rainfast</b>	One hour following application
<b>CLEARFIELD® Fit</b>	To control weeds missed with NEWPATH, CLEARPATH or BEYOND herbicide — such as barnyardgrass, smartweed, hemp sesbania, jointvetch, ducksalad, dayflower, eclipta and other aquatic weeds — tank-mix with Grasp SC at 2 to 2.8 fluid ounces per acre

### Tank Mixes

- Grasp® SC herbicide can be tank-mixed with NEWPATH, CLEARPATH, BEYOND and most other rice herbicides. Follow label directions on each respective product label.
- Tank mixes with products containing propanil may result in reduced alligatorweed control.
- Tank mixes with FACET herbicide may result in reduced annual smartweed control.
- Tank mixes with Clincher® SF herbicide may result in reduced control of broadleaf signalgrass.

### Water Management

- Grasp SC is recommended as either a pre-flood or post-flood application.
- If applied pre-flood, wait 72 hours before establishing the permanent flood.
- If applied post flood, wait three hours before raising the flood level.
- Weeds must be 70 percent exposed at time of application.
- Rainfall or flushing after application will improve control and residual activity.

### Application Precautions and Tips

- Weeds should be actively growing; do not apply to drought-stressed weeds.
- Avoid all direct or indirect contact with nontarget plants.
- Nonuniform spray coverage and/or spray volume less than 10 GPA can reduce overall weed control.
- Best weed control results are obtained when applied to small, actively growing weeds, when daytime and nighttime temperatures are warm (60 F or higher) and when soil moisture is adequate to support active weed growth prior to and following application.
- Under adverse conditions, MSO is recommended over COC.
- Application to rice grown on newly leveled ground (except water leveled fields), soils with pH >7.8 or high salt content may result in serious rice injury with a pre-flood application.
- If applied as a post-flood salvage treatment (e.g., heavy weed infestations, headed weeds, failure of previous herbicide applications and/or previously untreated areas), it should be considered an emergency salvage treatment. Complete control of labeled weeds should not be expected, and regrowth of treated weeds may occur.

## Application Rates and Weeds Controlled

## Pre-flood

<b>Weeds Controlled Pre-flood</b>		<b>Application Rates and Stage of Weed Development 2 to 2.3 fl. oz./A</b>
Annual Smartweed Spp. Eclipta Hemp Sesbania	Indian/Northern Jointvetch Rice Flatsedge	Up to 7 leaf
Arrowhead Barnyardgrass <sup>1</sup> Cocklebur Dayflower	Ducksalad Junglerice Pigweed	Up to 4 leaf
Texasweed		Up to 3 leaf
<b>Weeds Suppressed Pre-flood</b>		<b>Application Rates and Stage of Weed Development 2.3 to 2.8 fl. oz./A</b>
Perennial Barnyardgrass		Up to 18"
Alligatorweed		<24" runners
Morningglory Redstem Yellow Nutsedge		Up to 4 leaf

<sup>1</sup>Including propanil- and quinclorac-resistant barnyardgrass.

## Application Rates and Weeds Controlled

### Post Flood

Weeds Controlled Post Flood	Application Rates and Stage of Weed Development 2.5 to 2.8 fl. oz./A
Barnyardgrass <sup>1</sup>	Prior to heading
Ducksalad	<6"
Rice Flatsedge	<12"
Hemp Sesbania Indian/Northern Jointvetch	<15"
Weeds Suppressed Post Flood	Application Rates and Stage of Weed Development 2.5 to 2.8 fl. oz./A
Alligatorweed	<24" runners
Perennial Barnyardgrass	<18"
Annual Smartweed Spp. Eclipta Redstem	<12"

<sup>1</sup>Including propanil- and quinclorac-resistant barnyardgrass.

**Note:** Do not make more than one application or apply more than 2.8 fl. oz. of Grasp® SC herbicide per acre (0.044 lb./a.i. penoxsulam) during the growing season in both the first and ratoon crops combined.

# Grasp<sup>®</sup> Xtra



## HERBICIDE

Grasp<sup>®</sup> Xtra herbicide provides best-in-class postemergence control of broadleaf weeds, aquatics, sedges and grasses. Combining two proven modes of action — penoxsulam and triclopyr — Grasp Xtra provides broader-spectrum control of problem weeds than propanil-containing products.

Grasp Xtra is a powerful tool for pre-flood weed control and offers the flexibility for various production systems, including CLEARFIELD<sup>®</sup> rice. To achieve thorough coverage, Grasp Xtra should be applied in a spray volume of 10 GPA or more.

### Benefits

- Broadest-spectrum control in one herbicide solution
- Alternate mode of action offers a new resistance management tool
- Fits in CLEARFIELD<sup>®</sup> and conventional rice systems
- Flexible application timing and tank-mix options

<b>Product Use</b>	Postemergence herbicide for selective control of grass, broadleaf and annual sedge weeds in rice
<b>Active Ingredient</b>	Penoxsulam, Triclopyr
<b>Formulation</b>	2.31 lb. a.i./gal. liquid SC (suspension concentrate)
<b>Mode of Action</b>	ALS inhibitor and synthetic auxin
<b>Average Use Rate</b>	<b>Pre-flood:</b> 16 to 18 fl. oz./A. One gallon treats 7 to 8 acres. <b>Post flood:</b> 18 to 22 fl. oz./A. One gallon treats 6 to 7 acres.
<b>Package/Pallet Size</b>	2.5-gallon bottle; 2 bottles per case; 36 cases on pallet
<b>Adjuvant</b>	Methylated seed oil (MSO) or crop oil concentrate (COC) — minimum of 1 qt./A
<b>Spray Volume</b>	10 GPA or more and uniform coverage required. Always use clean water.
<b>Application Timing</b>	Drill-seeded rice: 2- to 3-leaf stage or before ½-inch internode elongation Water-seeded rice: 3- to 4-leaf stage or before ½-inch internode elongation
<b>Aerial Application</b>	Ten (10) gallons water per acre minimum spray volume. Coarse droplet size (250 to 375 microns) with uniform and thorough spray coverage. Straight-stream application (zero deflection) not recommended.
<b>Ground Application</b>	Ten (10) gallons water per acre minimum spray volume. Do not use air induction or flood-type nozzles. Flat-fan nozzles recommended.
<b>Residual</b>	Grasp Xtra has soil residual activity on barnyardgrass, annual sedges and some broadleaf weeds for up to three weeks, dependent on soil type and environmental conditions.
<b>Rainfast</b>	One hour following application
<b>CLEARFIELD® Fit</b>	To control weeds missed with NEWPATH, CLEARPATH or BEYOND herbicide — such as barnyardgrass, smartweed, hemp sesbania, jointvetch, ducksalad, dayflower, eclipta and other aquatic weeds — tank-mix with Grasp Xtra at 16 to 22 fluid ounces per acre.



### Tank Mixes

- Grasp<sup>®</sup> Xtra rice herbicide can be tank-mixed with NEWPATH, CLEARPATH, BEYOND and most other rice herbicides. Follow label directions on each respective product label.
- Tank mixes or sequential applications with products containing propanil may result in reduced alligatorweed control.
- Tank mixes with FACET herbicide may result in reduced annual smartweed control.

### Water Management

- Grasp Xtra is recommended as either a pre-flood or post-flood application.
- If applied pre-flood, wait 72 hours before establishing the permanent flood.
- If applied post-flood, wait three hours before raising the flood level.
- Weeds must be 70 percent exposed at time of application.
- For post-flood application, water must be covering the crowns of the rice plants or injury could occur.
- Rainfall or flushing after application will improve control and residual activity.

### Application Precautions and Tips

- Weeds should be actively growing; do not apply to drought stressed weeds.
- Avoid all direct or indirect contact with nontarget plants.
- Nonuniform spray coverage and/or spray volume less than 10 GPA can reduce overall weed control.
- Best weed control results are obtained when applied to small, actively growing weeds, when daytime and nighttime temperatures are warm (60 F or higher) and when soil moisture is adequate to support active weed growth prior to and following application.
- Under adverse conditions MSO is recommended over COC.
- Do not apply after ½-inch internode elongation stage of the rice.
- Application to rice grown on newly leveled ground (except water leveled fields), soils with pH >7.8 or high salt content may result in serious rice injury with a pre-flood application.
- If applied as a post-flood salvage treatment (e.g., heavy weed infestations, headed weeds, failure of previous herbicide applications and/or previously untreated areas), it should be considered an emergency salvage treatment. Complete control of labeled weeds should not be expected and regrowth of treated weeds may occur.

## Application Rates and Weeds Controlled

## Pre-flood

Weeds Controlled	Application Rates and Stage of Weed Development 16 to 18 fl. oz./A
Annual Smartweed Spp.      Hemp Sesbania Arrowhead                      Indian/Northern Jointvetch Cocklebur                      Morningglory Spp. Dayflower                      Rice Flatsedge Ducksalad Eclipta	Up to 7 leaf
Barnyardgrass <sup>1</sup> Pigweed Groundcherry              Redstem Junglerice                      Water Hyssop	Up to 4 leaf
Texas/Mexicanweed	Up to 3 leaf
Alligatorweed	<24" runners
Weeds Suppressed	18 to 22 fl. oz./A
Perennial Barnyardgrass	<18"

<sup>1</sup>Including propanil- and quinclorac-resistant barnyardgrass.

## Application Rates and Weeds Controlled

## Post Flood

<b>Weeds Controlled</b>	<b>Application Rates and Stage of Weed Development 18 to 22 fl. oz./A</b>
Barnyardgrass <sup>1</sup>	Prior to heading
Ducksalad      Morningglory Spp. Eclipta          Redstem Groundcherry	<6"
Arrowhead Hemp Sesbania Indian/Northern Jointvetch	<15"
Annual Smartweed Spp. Ricefield Bulrush Rice Flatsedge	<12"
Alligatorweed	<24" runners
<b>Weeds Suppressed</b>	<b>18 to 22 fl. oz./A</b>
Perennial Barnyardgrass	<18"
Texas/Mexicanweed	<12"

<sup>1</sup>Including propanil- and quinclorac-resistant barnyardgrass.

# Loyant<sup>®</sup>

Rinskor<sup>™</sup> active



## HERBICIDE

Loyant<sup>®</sup> herbicide with Rinskor<sup>™</sup> active offers broad-spectrum control of broadleaf, grass, sedge and aquatic weeds in one rice herbicide.

Rinskor active, a new, alternate mode of action in Loyant, controls ALS-, -ACCase-, glyphosate-, propanil- and quinclorac-resistant weeds in rice while improving resistance management.

To maximize the effectiveness of Loyant, apply product pre-flood to actively growing weeds. Additionally, it is strongly recommended that Loyant be included in a season-long weed control program containing multiple modes of action.

### Benefits

- Broadest-spectrum control in one herbicide solution
- Alternate mode of action offers a new resistance management tool
- Fits in CLEARFIELD<sup>®</sup> and conventional rice systems
- Flexible application timing and tank-mix options

<b>Product Use</b>	Postemergence control of economically important grass, broadleaf and sedge weeds, including ALS-, ACCase-, HPPD-, propanil-, quinclorac-, glyphosate- and triazine- resistant species
<b>Active Ingredient</b>	Rinskor active
<b>Formulation</b>	0.21 lb. a.i./gal. liquid NeoEC™ formulation)
<b>Mode of Action</b>	Represents the latest member of the unique synthetic auxin herbicide chemotype (HRAC group O), the aryloxyacetylaminotriazole
<b>Use Rate</b>	1 pt./A
<b>Package/Pallet Size</b>	2 x 2.5 gal. cases and 30 gal. drums
<b>Adjuvant</b>	Methylated seed oil (MSO) — 0.5 pt./A (required)
<b>Spray Volume</b>	10 GPA or more and uniform coverage required. Always use clean water.
<b>Application Timing</b>	2-leaf rice until 60 days prior to harvest. Internal and external trials have shown that Loyant is the most effective when used 5 days prior to the establishment of permanent flood.
<b>Aerial Application</b>	Ten (10) gallons water per acre minimum spray volume. Do not apply below 2 mph due to variable wind direction and high potential for temperature inversion. Do not apply in wind speeds greater than 10 mph. To minimize spray drift from aerial application, apply Loyant with a nozzle class that ensures coarse or coarser spray at spray boom pressure no greater than 30 psi.
<b>Ground Application</b>	10 gallons per acre minimum finished spray volume. To minimize spray drift from ground application, apply Loyant with a nozzle class that ensures coarse or coarser spray.
<b>Rainfast</b>	2 hours

### Water Management

- Recommended as a pre-flood application 5 days prior to a permanent flood.
- If applied pre-flood, wait two hours before establishing the permanent flood.
- If applied post flood, wait three hours before raising the flood level.
- Weeds must be 70 percent exposed at time of application.
- Rainfall or flushing after application will improve control.

### Application Precautions and Tips

- Weeds should be actively growing; do not apply to drought-stressed weeds.
- Avoid all direct or indirect contact with nontarget plants.
- Nonuniform spray coverage and/or spray volume less than 10 GPA can reduce overall weed control.
- Best weed control results are obtained when applied to small, actively growing weeds, when daytime and nighttime temperatures are warm (60 F or higher) and when soil moisture is adequate to support active weed growth prior to and following application.
- Use of an agriculturally approved methylated seed oil adjuvant at a rate of 0.5 pint per acre is required. Contact your local territory manager for approved adjuvants outside of methylated seed oil.
- Poor weed control and rice crop injury may result from application of Loyant made to plants under stress from abnormally hot or cold weather; environmental conditions such as drought, hail damage, prior herbicide applications, or soils with high salt content.
- If applied as a post-flood salvage treatment (e.g., heavy weed infestations, headed weeds, failure of previous herbicide applications and/or previously untreated areas), it should be considered an emergency salvage treatment. Complete control of labeled weeds should not be expected, and regrowth of treated weeds may occur.

### Application Rates and Weeds Controlled or Suppressed

At a rate of 16 fl oz/acre (1 pint/acre) the following weeds are either controlled or suppressed:

Weeds Controlled Pre-flood	Scientific Name	Controlled (C) or Suppressed (S)	Maximum Growth Stage
barnyardgrass <sup>1</sup>	<i>Echinochloa crus-galli</i>	C	4 leaf
broadleaf signalgrass <sup>1</sup>	<i>Urochloa platyphylla</i>	C	5 leaf
jungerice <sup>1</sup>	<i>Echinochloa colona</i>	C	3 tiller
rice flatsedge <sup>1</sup>	<i>Cyperus iria</i>	C	6 leaf
purple nutsedge <sup>1,2</sup>	<i>Cyperus rotundus</i>	C	5 leaf
yellow nutsedge <sup>1,2</sup>	<i>Cyperus esculentus</i>	C	5 leaf
smallflower umbrellasedge <sup>1</sup>	<i>Cyperus difformis</i>	C	6 leaf
alligatorweed	<i>Alternanthera philoxeroides</i>	C	12" runners
Ammannia (red stem)	<i>Ammannia coccinea</i>	C	8"
tighthead sprangletop	<i>Leptochloa panicoides</i>	S	2 tiller
Arrowhead/bulltongue/ grassy arrowhead	<i>Sagittaria spp.</i>	C	10 inches
Common Ragweed	<i>Ambrosia artemisiifolia</i>	C	8 inches
Ducksalad	<i>Heteranthera limosa</i>	C	4-leaf
Eclipta	<i>Eclipta prostrata</i>	C	6 inches
False Pimpernel, Low	<i>Lindernia dubia</i>	C	6 inches
Hemp Sesbania	<i>Sesbania herbacea</i>	C	24 inches
Horseweed	<i>Conyza spp.</i>	C	6 inches

## Application Rates and Weeds Controlled or Suppressed Continued

Weeds Controlled Pre-flood	Scientific Name	Controlled (C) or Suppressed (S)	Maximum Growth Stage
Jointvetch, Indian	<i>Aeschynomene indica</i>	C	12 inches
Jointvetch, Northern	<i>Aeschynomene virginica</i>	C	12 inches
Palmer Amaranth <sup>3</sup>	<i>Amaranthus palmeri</i>	C	8 inches
Pitted Morningglory <sup>4</sup>	<i>Ipomoea lacunosa</i>	C	8 inches
Redroot Pigweed	<i>Amaranthus retroflexus</i>	C	8 inches
Redweed	<i>Melochia corchorifolia</i>	C	8 inches
Roundleaf Mudplantain	<i>Heteranthera reniformis</i>	C	6 inches
Spreading Dayflower	<i>Commelina diffusa</i>	C	6 inches

<sup>1</sup> Includes ALS-, propanil- and quinclorac- resistant species

<sup>2</sup> To achieve control of purple and yellow nutsedge, Loyant must be applied 5 days sooner to establishment of permanent flood and plants must not exceed maximum growth stage in table.

<sup>3</sup> Includes ALS- and glyphosate-resistant species

<sup>4</sup> Morningglory species other than pitted morningglory are not controlled by Loyant.



# RebelEX<sup>®</sup>



## HERBICIDE

RebelEX<sup>®</sup> herbicide is your premier early postemergence residual herbicide for broad-spectrum control of your toughest weeds, including propanil-resistant weeds.

RebelEX is proven to deliver superior control of sprangletop and up to three weeks of barnyardgrass control. With two modes of action, RebelEX is an excellent rotational partner, providing lasting pre-flood control of grasses, broadleaves, sedges and aquatics.

### Benefits

- Provides three weeks of added residual control
- Improves resistance management with two modes of action
- Outperforms FACET on barnyardgrass and sprangletop when applied pre-flood
- Offers a broader spectrum of control than propanil-containing products
- Extremely versatile with a wide application window
- Can be tank-mixed with most other rice herbicides
- RebelEX can be applied to conventional and CLEARFIELD<sup>®</sup> acres.

<b>Product Use</b>	Postemergence herbicide for selective control of grass, broadleaf and annual sedge weeds in rice
<b>Active Ingredient</b>	Penoxsulam, Cyhalofop-butyl
<b>Formulation</b>	2.03 lb. a.i./gal. liquid SE (suspension-emulsion concentrate)
<b>Mode of Action</b>	ALS inhibitor and ACCase inhibitor
<b>Average Use Rate</b>	<b>Pre-flood:</b> 16 to 18 fl. oz./A. One gallon treats 7.5 acres. <b>Post flood:</b> 18 to 20 fl. oz./A. One gallon treats 6.7 acres.
<b>Package/Pallet Size</b>	2.5-gallon bottle; 2 bottles per case; 36 cases on pallet
<b>Adjuvant</b>	Methylated seed oil (MSO) or crop oil concentrate (COC) — minimum of 1 qt./A
<b>Spray Volume</b>	10 GPA or more and uniform coverage required. Always use clean water.
<b>Application Timing</b>	1-leaf rice up to 60 days before harvest
<b>Aerial Application</b>	Ten (10) gallons water per acre minimum spray volume. Medium droplet size (175 to 250 microns) with uniform and thorough spray coverage. Straight-stream application (zero deflection) not recommended.
<b>Ground Application</b>	Apply to wet soils with ten (10) gallons water per acre minimum spray volume. Medium to coarse droplet size (175 to 375 microns). Induction or flood-type nozzles may give inconsistent control; flat-fan nozzles are recommended. Under dense weed/crop canopies, increased gallonage and higher spray pressure are important in obtaining thorough coverage.
<b>Residual</b>	RebelEX has soil residual activity on barnyardgrass, annual sedges and some broadleaf weeds for up to three weeks, dependent on soil type and environmental conditions.
<b>Rainfast</b>	Two hours following application
<b>CLEARFIELD® Fit</b>	<b>Post flood:</b> To control weeds missed with NEWPATH or BEYOND herbicide — such as barnyardgrass, hemp sesbania, jointvetch, eclipta and aquatic weeds — tank-mix with RebelEX at 18 to 20 fluid ounces per acre. <b>Pre-flood:</b> To control weeds missed with NEWPATH, CLEARPATH or BEYOND herbicide — such as barnyardgrass, sprangletop, fall panicum, other annual grasses, smartweed, hemp sesbania, jointvetch, duck salad, dayflower, eclipta and other aquatic weeds — tank-mix with RebelEX at 16 to 20 fluid ounces per acre.

### Tank Mixes

- RebelEX® herbicide can be tank-mixed with NEWPATH, CLEARPATH, BEYOND, Command, FACET or PROWL herbicides, as well as fungicides and insecticides. Follow label directions on each respective product label.
- Tank-mixing with nonrecommended herbicides may reduce overall grass control.
- Tank mixes with FACET may result in reduced annual smartweed control.

### Water Management

- RebelEX is recommended as either a pre-flood or post-flood application.
- If applied pre-flood, wait 72 hours before establishing the permanent flood.
- If applied post flood, wait three hours before raising the flood level.
- Weeds must be 70 percent exposed at time of application.
- Rainfall or flushing after application will improve control and residual activity.

### Application Precautions and Tips

- For heavy grass densities and/or rescue treatments, sequential application is recommended. Follow the initial application of RebelEX with a sequential 10-oz. application of Clincher® SF herbicide within 10 to 14 days for improved control.
- If RebelEX is applied as a post-flood salvage treatment to previously untreated areas, fields with previous failed herbicide applications, or areas of extremely high grass weed density, total control of labeled grass weeds should not be expected. Regrowth of these grass weeds may occur.
- Apply at least five days before or seven days after the application of broadleaf or sedge herbicides.
- Best weed control results are obtained when applied to small, actively growing weeds, when daytime and nighttime temperatures are warm (60 F or higher) and when soil moisture is adequate to support active weed growth prior to and following application.
- Under adverse conditions, MSO is recommended over COC.
- Always use clean water with spray mixes of RebelEX. Do not use water containing rinsate from previous spray solution, even at low concentrations, as this may reduce weed control.
- If drift control agent is used, weed control may be reduced.
- If the spray solution pH is >8, a buffering agent should be used to lower the pH to <8.
- Weeds should be actively growing; do not apply to drought-stressed weeds.
- Avoid all direct or indirect contact with nontarget plants.
- Nonuniform spray coverage and/or spray volume less than 10 GPA can reduce overall weed control.
- Application to rice grown on newly leveled ground (except water leveled fields), soils

**Application Rates and Weeds Controlled**

**Weeds Controlled in Water-seeded Rice**

Weeds Controlled	Application Rates and Stage of Weed Development	
	16 to 18 fl. oz./A	18 to 20 fl. oz./A
Dwarf Spike Rush    Parrotfeather Gooseweed          Pickerel Weed Hedge Hyssop      Spike Rush Narrow Leaf Aster    Water Plantain (Bull Tongue)	Up to 7 leaf	<12"
Weeds Suppressed	16 to 18 fl. oz./A	18 to 20 fl. oz./A
Rush	—	<12"

**Water-seeded and Drill-seeded Rice – Pre-flood**

Weeds Controlled	16 to 18 fl. oz./A
Annual Smartweed Spp.      Rice Flatsedge Eclipta Hemp Sesbania Indian/Northern Jointvetch	Up to 7 leaf
Amazon (Tighthead) Sprangletop    DUCKSALAD Arrowhead                                  Fall Panicum Barnyardgrass <sup>1</sup> Junglerice Bearded Sprangletop                      Pigweed Cocklebur                                      Red Sprangletop Dayflower	Up to 4 leaf
Texas/Mexicanweed	Up to 3 leaf
Weeds Suppressed	18 to 20 fl. oz./A
Broadleaf Signalgrass                      Texas Panicum Brook Paspalum                                Water Paspalum Goosegrass	Up to 4 leaf
Perennial Barnyardgrass	<18"
Alligatorweed                                  Yellow Nutsedge	<24" runners
Morningglory Spp. Redstem	Up to 4 leaf

<sup>1</sup>Including propanil- and quinclorac-resistant barnyardgrass.

## Application Rates and Weeds Controlled

### Water-seeded and Drill-seeded Rice – Post Flood

<b>Weeds Controlled</b>	<b>Application Rates and Stage of Weed Development</b> <b>18 to 20 fl. oz./A</b>
Amazon (Tighthead) Sprangletop Barnyardgrass <sup>1</sup> Bearded Sprangletop Fall Panicum Junglerice Red Sprangletop	Mid- to late tillering or branching, prior to grass weed heading
Ducksalad	<6"
Hemp Sesbania Indian/Northern Jointvetch	<15"
Rice Flatsedge	<12"
<b>Weeds Suppressed</b>	<b>18 to 20 fl. oz./A</b>
Brook Paspalum Texas Panicum Water Paspalum	Mid- to late tillering or branching, prior to grass weed heading
Alligatorweed	<24" runners
Perennial Barnyardgrass	<18"
Annual Smartweed Spp. Eclipta Redstem	<12"

<sup>1</sup>Including propanil- and quinclorac-resistant barnyardgrass.

# Weed Control Rating Chart

● = Excellent (100% to 90%) ● = Good (89% to 80%) ● = Fair (79% to 60%) ● = Poor (< 60%)

Use Rate	Loyant® 1 pint/acre	Grasp® SC 2.5 oz./A (Alone)	Grasp Xtra 16-18 fl. oz./A	Cilncher® 15 oz./A	RebelEX 18-20 fl. oz./A	BEYOND 5 fl. oz./A	BEYOND + Grasp SC 5 + 2.5 fl. oz./A	BEYOND + Grasp Xtra 5 + 18-20 fl. oz./A	BEYOND + Cilncher 5 + 15 fl. oz./A	BEYOND + RebelEX 5 + 18 fl. oz./A
<b>Postemergence Control</b>										
Barnyardgrass/Junglerice (Up to 4 leaf)	●	●	●	●	●	●	●	●	●	●
Sprangletop (1 to 3 leaf) Bearded and Amazon	● ●	●	●	●	●	●	●	●	●	●
Crabgrass (Up to 4 leaf)	●	●	●	●	●	●	●	●	●	●
Broadleaf Signalgrass (1 to 3 leaf)	●	●	●	●	●	●	●	●	●	●
Knotgrass (Up to 4 leaf)		●	●	●	●	●	●	●	●	●
Perennial Barnyardgrass (Up to 18-inch runners)		●	●	●	●	●	●	●	●	●
Rice Flatsedge (Up to 7 leaf)	●	●	●	●	●	●	●	●	●	●
Perennial Sedges (Up to 4 leaf)	●	●	●	●	●	●	●	●	●	●
Annual Smartweed Spp. (Up to 7 leaf)	●	●	●	●	●	●	●	●	●	●
Hemp Sesbania (Up to 7 leaf)	●	●	●	●	●	●	●	●	●	●
Jointvetch (Up to 7 leaf)	●	●	●	●	●	●	●	●	●	●
Morningglory Spp. (Up to 4 leaf)	●	●	●	●	●	●	●	●	●	●
Dayflower (Up to 4 leaf)	●	●	●	●	●	●	●	●	●	●
Alligatorweed (Up to 24-inch runners)	●	●	●	●	●	●	●	●	●	●
Texasweed (Up to 3 leaf)	●	●	●	●	●	●	●	●	●	●
Eclipta (Up to 7 leaf)	●	●	●	●	●	●	●	●	●	●
Redstem (Up to 4 leaf)	●	●	●	●	●	●	●	●	●	●
Ducksalad (Up to 4 leaf)	●	●	●	●	●	●	●	●	●	●
Groundcherry	●	●	●	●	●	●	●	●	●	●
<b>Residual activity (up to three weeks with rainfall or flush for activation)*</b>										
Barnyardgrass/Junglerice		●	●	●	●	●	●	●	●	●
Rice Flatsedge		●	●	●	●	●	●	●	●	●
Annual Smartweed Spp.		●	●	●	●	●	●	●	●	●

\*Residual activity on other weeds has not been determined. Refer to label for specific use directions.



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