

Product Bulletin



Valent U.S.A. Corporation
P.O. Box 8025
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FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF MISSOURI
BOLERO® 8 EC
BOLERO 8 EC AND PROWL® 3.3 EC IN A TANK MIX
BOLERO 8 EC AND PROPANIL® IN A TANK MIX
AND SEQUENTIAL APPLICATION IN VARIOUS RICE PRODUCTION SYSTEMS
EPA Reg. No. 59639-79
EPA SLN No. MO-950002
Rev. 1

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

GENERAL INFORMATION

BOLERO 8 EC plus PROWL 3.3 EC applied in one of the following herbicide programs will control most annual grasses, broadleaf and aquatic weeds in dry-seeded rice.

- Delayed preemergence (see Specific Directions For Use)
- Split applications

GENERAL USE DIRECTIONS

For BOLERO 8 EC plus PROWL 3.3 EC in Dry-Seeded Rice

- **DO NOT** apply products through any type of irrigation system.
- For dry-seeded rice - either drill or broadcast planted in systems which **DO NOT LEAVE RICE SEED EXPOSED** at the soil surface.
- Seedbeds should be well prepared and free of large clods.
- Uniformly apply in a minimum of 10 GPA with aerial or ground application equipment.
- **DO NOT APPLY TO STRESSED RICE.**
- **DO NOT APPLY BOLERO 8 EC + PROWL 3.3 EC AND THEN FLUSH FOR GERMINATION.**
- **DO NOT APPLY EARLY PREEMERGENCE NOR PREPLANT INCORPORATED.**
- **DO NOT USE THESE TREATMENTS IN WATER-SEEDED RICE.**
- **DO NOT** overlap or double treat the ends of rice fields.
- **DO NOT** apply to rice fields used for catfish/crayfish farming. Do not apply on rice fields adjacent to catfish or crayfish ponds.
- **DO NOT** apply more than 2 1/2pts. Of BOLERO 8 EC per acre when using aerial application equipment east of the Rocky Mountains.
- **DO NOT** allow spray drift or accidental application from turning aircraft into catfish, crayfish, minnow or shrimp ponds; nor into adjacent crops including cotton, cereal grains, corn, sorghum, soybeans, vegetables, orchards or ornamentals; nor into adjacent areas including gardens or shrubs.

LISTS OF WEEDS CONTROLLED BY BOLERO 8 EC ALONE

COMMON NAME	SCIENTIFIC NAME	SIZE MOST EFFECTIVE CONTROL OCCURS
Barnyardgrass	<i>Echinochloa crus-galli</i>	pre - 2 leaf
Junglerice	<i>Echinochloa colonum</i>	pre - 2 leaf
Sprangletop	<i>Leptochloa</i> spp.	pre - 1/2"
Crabgrass	<i>Digitaria</i> spp.	pre - 2 leaf
Fall Panicum	<i>Panicum dichotomiflorum</i>	pre - 2 leaf
Ducksalad	<i>Heteranthera</i> spp.	pre - 1/2"
Redstem	<i>Ammannia</i> spp.	pre - 1/2"
Waterhyssop	<i>Bacopa rotundifolia</i>	pre - 1/2"
False Pimpernel	<i>Lindernia</i> spp.	pre - 1/2"
Annual Umbrellaplants	<i>Cyperus erythrorhizes, C. iria</i>	pre - 1/2"
Hoorahgrass	<i>Fimbristylis</i> spp.	pre - 1/2"
Annual Spikerush	<i>Eleocharis obtusa, E. parvula</i>	pre - 1/2"
Gooseweed	<i>Sphenoclea zeylanica</i>	pre - 1/2"

BOLERO 8 EC PLUS PROWL 3.3 EC (In Addition to Weeds Controlled by BOLERO Alone)

Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	Pre
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BOLERO 8 EC PLUS Propanil (In Addition to Weeds Controlled by BOLERO Alone)

Dayflower	<i>Commelina communis</i>	1/2" and less
Hemp Sesbania	<i>Sesbania exaltata</i>	2" and less
Northern Jointvetch	<i>Aeschynomene virginica</i>	2" and less
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2" and less
Goosegrass	<i>Eleusine indica</i>	2 leaf and less
Pitted Morningglory	<i>Ipomoea lacunosa</i>	2" and less

SPECIFIC DIRECTIONS FOR USE - DELAYED PREEMERGENCE IN:

I. DRILLED, DRY-SEEDED RICE

1. The seedbed should be well prepared and free of large clods.
2. Soil should be sealed by rainfall or flushing after seeding to promote uniform rice germination prior to application. **RICE SEED MUST GERMINATE (HAVE A PRIMARY ROOT AT LEAST 1/2 INCH LONG) PRIOR TO** the delayed preemergence application of BOLERO® 8 EC + PROWL® 3.3 EC.
3. Apply BOLERO 8 EC + PROWL 3.3 EC **AS A DELAYED PREEMERGENCE APPLICATION 1 TO 5 DAYS BEFORE RICE EMERGES (USUALLY 5 TO 9 DAYS AFTER SEEDING) AND PRIOR TO WEED EMERGENCE.** Soil surface should be moist and smooth at application.
4. **DO NOT APPLY TO FIELDS WITH STANDING WATER.**
5. Soil should be kept moist after application and not be allowed to crust and crack.
6. Fields should be flooded as soon as the rice plants will tolerate permanent flooding.
7. Refer to lists of weeds controlled.
8. Refer to "Product Use Rates For Delayed Preemergence Applications" Table.

II. BROADCAST, DRY- SEEDED RICE

1. The seedbed should be well prepared and free of large clods.
2. **SEEDING RATE SHOULD BE INCREASED BY 20%** (above drill-seeded rate), as recommended by the state Extension Service. Seed should be broadcast uniformly and incorporated with a field cultivator or similar implement to cover as many seeds as possible at a uniform depth suitable for the variety and soil type.
3. The fields to be treated with BOLERO 8 EC + PROWL 3.3 EC tank mixture should be **ROLLED AFTER PLANTING** to firm the soil and ensure good seed-to-soil contact. Seeds left uncovered at the surface will likely be injured or killed if sprayed directly with the BOLERO 8 EC + PROWL 3.3 EC mixture.
4. Soil should be sealed by rainfall or flushing after seeding to promote uniform rice germination prior to application. **RICE SEED MUST GERMINATE (HAVE A PRIMARY ROOT AT LEAST 1/2 INCH LONG) PRIOR TO** the delayed preemergence application of BOLERO 8 EC + PROWL 3.3 EC.
5. Apply BOLERO 8 EC + PROWL® 3.3 EC **AS A DELAYED PREEMERGENCE APPLICATION 1 TO 5 DAYS BEFORE RICE EMERGES (USUALLY 5 TO 9 DAYS AFTER SEEDING) AND PRIOR TO WEED EMERGENCE.** Soil surface should be moist and smooth at application.
6. **DO NOT APPLY TO FIELDS WITH STANDING WATER.**
7. Soil should be kept moist after application and not be allowed to crust and crack.
8. Fields should be flooded as soon as the rice plants will tolerate permanent flooding.
9. Refer to lists of weeds controlled.
10. Refer to "Product Use Rates For Delayed Preemergence Applications" Table.

**PRODUCT USE RATES FOR DELAYED PREEMERGENCE APPLICATIONS
IN DRY-SEEDED RICE**

Broadcast Rate per Acre of BOLERO 8 EC Alone or BOLERO 8 EC + PROWL 3.3 EC Tank Mixture (Pints per Acre)		
SOIL TEXTURE	BOLERO 8 EC RATE PER ACRE	PROWL 3.3 EC RATE PER ACRE
COARSE: Sand, loamy sand	-----	DO NOT USE
COARSE: Sandy loam only	2 - 3 pts.	1.8 pts.
MEDIUM: Loam, silt loam, silt, sandy clay loam	3 - 4 pts.	1.8 - 2.4 pts.
FINE: Silty clay loam, clay loam, sandy clay, silty clay, clay	3 - 4 pts.	1.8 - 2.4 pts.

SPLIT APPLICATION FOR DRILLED OR BROADCAST, DRY-SEEDED RICE

Delayed Preemergence followed by Postemergence

A sequential application of BOLERO 8 EC + PROWL 3.3 EC (Delayed Preemergence) followed by a postemergence treatment of BOLERO 8 EC + Propanil may be used to control additional weeds (see lists of weeds controlled) and to extend the length of control under wet-spring conditions, which promote pre-flood growth of grasses, broadleaf weeds, and aquatics in dry-seeded rice.

Specific Directions For Use - Split Application

**BOLERO 8 EC + PROWL 3.3 EC (Delayed Preemergence) followed by
BOLERO 8 EC + PROPANIL (postemergence)**

1. Follow the "**SPECIFIC DIRECTIONS FOR USE - DELAYED PREEMERGENCE**" for either drilled or broadcast rice as outlined previously in this label.
2. Refer to the "**PRODUCT USE RATE FOR SPLIT APPLICATIONS**" Table below to select the proper herbicide rates for both the delayed preemergence and the postemergence portion of the split application.
3. Apply BOLERO 8 EC + Propanil as a postemergence application when grasses are in the 2-leaf stage of development or less (sprangletop less than 1/2 inch), aquatics less than 1/2 inch, and broadleaf weeds less than 2 inches tall.
 - Application should be made when the soil surface is sealed and moist (non-flooded).
 - Soil should be kept moist after application and not be allowed to crust and crack.
 - Fields should be flooded as soon as the rice plants will tolerate permanent flooding.
 - Temporary injury to rice may occur under certain conditions.
 - **DO NOT APPLY TO STRESSED RICE.**
 - The BOLERO 8 EC + Propanil tank mixture will not prevent reinfestation of hemp sesbania, northern or indian jointvetch, broadleaf signalgrass, or pitted morningglory.
 - Refer to lists of weeds controlled. The Propanil component in the BOLERO 8 EC tank mixture increases the postemergence activity for control of weeds listed.

NOTE: This application may also be made to dry, medium, and fine-textured soils which have previously been sealed by rain or flushing and are not cracked at application. **RICE SHOULD BE IN THE 2- TO 3- LEAF STAGE OF DEVELOPMENT. THE SOIL MUST BE WET BY RAIN OR FLUSHING WITHIN 3 DAYS AFTER APPLICATION OR A REDUCTION IN CONTROL CAN BE EXPECTED.** If flushing (or heavy rainfall) is used to wet the soil, causing rapid water movement through the flood gates, weed control around the gates may be reduced. **DO NOT APPLY TO STRESSED RICE**, as it may be seriously injured or killed.

PRODUCT USE RATES FOR SPLIT APPLICATIONS IN DRY-SEEDED RICE

BOLERO 8 EC + PROWL 3.3 EC (Delayed Preemergence) followed by
BOLERO 8 EC + PROPANIL (Postemergence)

OR

BOLERO 8 EC + PROWL 3.3 EC (Delayed Preemergence)

(Tank Mix Rates per Acre Broadcast)

SOIL TEXTURE	DELAYED PREEMERGENCE		fb ¹	EARLY POSTEMERGENCE		
	BOLERO	+ PROWL		BOLERO	+ PROPANIL ²	
COARSE: Sand, Loamy Sand	DO NOT USE		----	-----	-	-----
COARSE: Sandy Loam Only	2 pts.	+ 1.8 pts.	fb	2 pts.	+ 2 - 4 qts.	
MEDIUM: Loam, Silt Loam, Silt, Sandy Clay Loam	2 pts.	+ 1.8 - 2.4 pts.	fb	2 pts.	+ 2 - 4 qts.	
FINE: Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay	2 pts.	+ 1.8 - 2.4 pts.	fb	2 pts.	+ 2 - 4 qts.	

¹ fb = Followed by

² Propanil Rate based on 4 lb. a.i./Gal formulation

Mixing Instructions:

- **PROWL® 3.3 EC + BOLERO® 8 EC**
 Add PROWL to the half-full spray tank of clean water with agitator running. After PROWL is thoroughly mixed, add BOLERO 8 EC and mix thoroughly. Then add the remaining volume of water. Maintain constant agitation during application.
- **BOLERO 8 EC + PROPANIL**
 Add Propanil to the half-full spray tank of clean water with agitator running. After Propanil is thoroughly mixed, add BOLERO 8 EC and mix thoroughly. Then add the remaining volume of water. Maintain constant agitation during application.

PRECAUTIONS

Read and carefully observe the label claims, cautionary statements, rates and all other information on the labels of all products. Use according to the most restrictive label directions of each product in the mixture.

REFER TO STATE PRECAUTIONARY STATEMENTS ON RICE VARIETAL HERBICIDE SENSITIVITY.

Do not apply to stressed rice or second crop (stubble crop) rice. Do not use BOLERO 8 EC or BOLERO 8 EC tank mixtures on the rice varieties L201 and Millie. Follow the most restrictive label directions concerning rotational cropping and crop failure. Do not apply to rice fields used for catfish/crayfish farming. Do not apply to rice fields adjacent to catfish or crayfish ponds. Avoid drift to non-target areas. Do not permit drift into catfish, crayfish, shrimp or minnow ponds. Water drained directly from treated fields must not be used to irrigate other crops. Do not apply more than 4 lbs. BOLERO active ingredient per acre per year. Do not apply BOLERO 8 EC tank mixtures within 14 days before or after organophosphate or carbamate insecticide application. Do not apply when temperatures exceed 95 degrees F. Do not apply BOLERO 8 EC alone or in tank mixtures when rain is expected within 24 hours. Rice seedlings with succulent growth may exhibit temporary foliar burn which may be greater than conventional Propanil application but usually recovers after 10 to 14 days. Do not add liquid nitrogen, zinc or surfactants with BOLERO 8 EC alone or when tank mixed with Propanil or postemergence applications.

Application to stressed rice can result in stand reductions, chlorosis, growth inhibition, delayed maturity and/or leaf desiccation. Stress factors include but are not limited to the following: Daily temperatures below 65 degrees F^o, or above 95 degrees F^o, problem soils (i.e., Zn deficiency, high salt content, high pH), excessive moisture (i.e., above field capacity while rice seed is germinating), drought conditions, poor field drainage or deep water after application.

Follow all applicable directions, restrictions and precautions on the EPA registered label.

This labeling must be in the possession of the user at the time of pesticide application.

FIFRA Section 24(c) Registrant: VALENT U.S.A. Corporation
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BOLERO -- Reg. TM of Kumiai Chemical Industry Co., Ltd. for Thiobencarb Herbicide.
PROWL -- Reg. TM of BASF