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PM 37

Supplemental Label

BASAGRAN® herbicide

Under the Federal Insecticide, Fungistic, and Redenticide Act, or emended, for the posticide registered under 189-45

Tank mix with Thistrol\* herbicide for postemergence application in peas\*.

BASAGRAN EPA Registration No. 7969-45 Thistrol EPA Registration No. 264-181-2A

All applicable directions, restrictions, precautions and Conditions of Sale and Warranty on both EPA-registered labels are to be followed. This labeling must be in the possession of the user at the time of herbicide application.

#### Directions for Use

It is a violation of Federal law to use these products in a manner inconsistent with approved labeling.

#### General Information

The tank mix of BASAGRAN plus Thistrol will also control certain weeds not controlled by BASAGRAN alone (see Tank Mix Recommendation Tables).

Since this tank mix is effective mainly through contact action, thorough coverage of weeds is essential for effective weed control. Large crop-and-weed-leaf canopies shelter smaller weeds and prevent adequate spray coverage. Crop foliage present at application may be injured in the form of yellowing, bronzing, speckling, and/or twisting, but the plants usually outgrow this temporary injury and develop normally.

#### Time and Rate of Application

The rates of application and weed sizes for the use of this tank mix are given in the Rate and Time of Application Recommendation Tables. This tank-mix should be applied after the 3 leaf stage (four node stage) of the peas has occurred to control weeds. Do not apply this BASAGRAN + Thistrol tank mix later than 3 nodes before pea flowering.

Apply the BASAGRAN + Thistrol tank mix to weeds that are actively growing and before weeds reach the maximum size listed in the Application Recommendation Tables.

Application to weeds that exceed the maximum size stated may result in inadequate control.

\*Tank mix not applicable to California

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# Notice to User

Due to variability among pea cultivars and in application techniques neither the manufacturers nor the sellers have determined whether or not the BASAGRAN + Thistrol tank mix can be safely used on all pea crops under all conditions. It is therefore recommended that the user determine if the BASAGRAN + Thistrol tank mix can be used safely prior to broad use.

#### Spray Additives

Do not use crop oil concentrate, other oil-based additives, or any other spray additives or surfactants with this tank mix.

### Water Volume and Spray Pressure

Use a spray volume of 20-40 gallons of total spray mixture per acre (broadcast basis) and a maximum of 40 psi pressure with standard high pressure hollow cone or flat fan nozzles spaced 20 inches apart. Use only ground equipment to apply this tank mix.

### Mixing

Fill the spray tank half full with water and add the recommended amount of BASAGRAN® herbicide and Thistrol while the agitator is running. Then add the remaining quantity of water.

### Restrictions and Limitations (Partial List)

Read and follow the restrictions and limitations on the labels for BASAGRAN and Thistrol. The most restrictive labeling applies in tank mixes.

Do not apply directly to water or wetlands.

Do not contaminate water when disposing of equipment wash waters.

Do not apply tank mix if peas show injury (leaf phytotoxicity and/or plant stunting) produced by any other prior herbicide treatment because this injury may be enhanced and/or prolonged.

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Do not feed treated peas, vines or hay to livestock.

Do not apply tank mix during prolonged periods of drought or during unseasonably cold weather, as unsatisfactory weed control may result.

Do not apply tank mix to peas that have been subjected to stress conditions such as root rot, hail damage, flooding, drought, or unseasonably cold or widely fluctuating temperatures because injury may result.

Do not apply the tank mix to peas when temperatures exceed 90° F.

Do not apply the tank mix to peas after pea flower buds appear.

Avoid drift to all other crops and non-target areas. Crops other than peas may be severely injured by drift. Cotton, beans, grape, tomatoes, and ornamentals are particularly sensitive to Thistrol.

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Application Rate Table for Tank Mix of BASAGRAN + Thistrol for Peas (Early Timing). Table 1.

Weeds Controlled	Maximum Leaf Stage	Maximum Height
Canada Thistle	Not Recommended	14
Cocklebur	Not Recommended	
Common Lambsquarter*	4	2"
Common Purslane	4	# 1 <sup>m</sup>
Common Ragweed	Not Recommended	:
Field Pepperweed**	6	4"
Giant Ragweed	Not Recommended	
Henbit	Not Recommended	•
Jimsonweed	4	1. <b>4"</b>
Ladysthumb	6	4 6"
Marshelder	Not Recommended	14
Pennsylvania Smartweed	6	<b>4</b> "
Pigweed	5	i₁ 2*
Prickly Sida or Teaweed	6	3"
Shepherdspurse**	6	H 411
Velvetleaf	Not Recommended	t t
Wild Mustard	6	4"
Wild Radish	6	: 4 n
Wild Sunflower	Not Recommended	•

Table 2. Application Rate Table for Tank Mix of BASAGRESS + Thistrol for Peas (Late Timing).

1	1/2 pints BASAGRAN plus 3 pints Thistro				
Weeds Controlled	Maximum Leaf Stage	Maximum Height			
Canada Thistle*	10 to bud				
Cocklebur**	6	6 <b>*</b>			
Common Lambsquarter	8	3"			
Common Purslane	6	2"			
Common Ragweed	6	3"			
Field Pepperweed † †	10	8"			
Giant Ragweedt	4	6"			
Tenbit	4	2"			
Jimsonweed	6	6 <b>"</b>			
Ladysthumb	10	10"			
Marshelder	4	2"			
Pennsylvania Smartwee	d 8	6"			
Pigweed	8	6"			
Prickly Sida or Teawe	ed 8	4"			
Shepherdspurse††	10	8"			
Velvetleaf†	4	2"			
Wild Mustard	10	10"			
Wild Radish	10	10"			
Wild Sunflower	4	5"			

<sup>\*</sup>Follow treatment with a sequential application of BASAGRAN (2 pints/acre) at 7 to 10 days after tank mix treatment as needed.

<sup>\*\*</sup>Do not treat earlier than the 2 leaf stage and do not count cotyledon leaves.

<sup>†</sup>Control may be partial or inconsistent.

<sup>††</sup>Do not treat rosette until seed stalk appears.

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# Appendix

The following are scientific names for the weeds listed in this section. For specific recommendations on control of these weeds, refer to the Application Recommendation Table.

# Broadleaf Weeds

Common Name	' Scientific Name
Canada Thistle	Cirsium arvense
Cocklebur	Xanthium strumarium
Common Lambsquarters	Chenopodium album
Common Purslane	Portulaca oleracea
Field Pepperweed	Lepidium campestre
Henbit	Lamium amplexicaule
Jimsonweed	Datura stramonium
Ladysthumb	Polygonum persicaria
Marshelder	Iva xanthiofolia
Pennsylvania Smartweed	Polygonum pensylvanicum
Pigweed, Redroot	Amaranthus retroflexus
, Smooth	Amaranthus hybridis
Prickly Sida or Teaweed	Sida spinosa
Ragweed, Common	Ambrosia artemisiifolia
, Giant	Ambrosia trifida
Shepherdspurse	Capsella bursa-pastoris
Velvetleaf	Abutilon theophrasti
Wild Mustard	Sinapsis arvensis
Wild Radish	Raphanum raphanistrum
Wild Sunflower	Helianthus annuus

Thistrol is a registered trademark of Rhone-Poulenc.

### Conditions of sale and warranty

The Directions for use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness of other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") of the seller. All such risks shall be assumed by the Buyer.

BASF Warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for use, subject to the inherent risks referred to above. BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BASF and the seller offer this product, and the Buyer and User accept it, subject to the foregoing Conditions of sale and warranty which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

Revised 2/1/89

Supplemental Labeling

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BASAGRAN<sup>R</sup> "ERBICIDE (EPA Reg. no. 7969-45) Under the Federal Inserticide, Fungicide, and Redenticide Act, as amended, for the perticide registered under 1969-45 EPA Reg. No. 1969-45

Tank mix with MCPA for Postemergence Use in Rice

All applicable directions, restrictions, precautions and Conditions of Sale and Warranty on the EPA-registered labels of Basagaran and MCFA are to be followed. This labeling must be in the possession of the user at the time of herbicide application.

#### **DIRECTIONS FOR USE**

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

### General Information

Basagran tank mixed with MCPA\* applied postemergence is effective in controlling several broadleaved weeds and sedges (Cyperaceae). Grasses ar not controlled. Basagran is principally a contact herbicide and MCPA is hormone-type herbicide which can translocate in the plant. Weeds must be thoroughly covered for maximum activity to occur. Large crop-and-weed leaf canopies shelter smaller weeds and prevent adequate spray coverage, and may reduce effectiveness.

# Timing of Application

Make postemergence applications of Basagran + MCPA early, when weeds are small and actively growing. Basagran + MCPA should be applied to rice having at least 3-4 leaves and a good root system up to end of tillering. Do not apply to rice in early seedling, boot or early heading stages.

Alternate Flooding Culture: In Texas, Louisiana, Arkansas and Mississippi, weed growth stages generally correspond to rice that is tillering (stooling) and occur prior to the permanent flood. Application of Basagran + MCPA must be made when there is no water on the field and 24 hours or more prior to flooding. If Basagran + MCPA cannot be applied until after flooding, see directions under Continuous Flooding Culture.

\*All amine and sodium salt formulations by various manufacturers and formulators.



Continuous Flooding Culture: In California and in other states using continuous flooding culture or when treating after permanent flood, treatment should be made only when weeds are above the surface of the water. Weeds submerged at the time of application are not adequately controlled.

For early treatment, water may be partly or completely drained to expose more weed growth to spray applications of Basagran + MCPA. Do not raise water level for at least 24 hours after application or unsatisfactory control may result. Do not use ground equipment for applications on flooded fields because splashing will wash the Basagran + MCPA off weed leaf surfaces and ineffective control may result.

California only: Avoid applications of Basagran + MCPA (a) during cold weather (day temperature below 75°F and night temperatures below 55°F for 2 to 5 days) as weed control may be reduced, or (b) when rapid temperature drops are forecast.

# Water Volume and Spray Pressure

Ground equipment: Use a minimum of 20 gallons of water per acre and a minimum of 40 psi pressure (measured at the boom--not at the pump or in the line). When crop and weed foliage is dense use up to 50 gallons of water and up to 80 psi pressure. Use standard flat fan nozzles spaced 20 inches apart. Do not use flood, whirl chamber, or controlled droplet applicator (CDA) nozzles. Do not spray if wind exceeds 8 mph.

oguipment: Use a minimum of 10 gallons of water per acre and tribum of 40 pai pressure. Diaphram - type or jet nozzles may

#### Aerial Application - Special Directions

To obtain uniform coverage and to avoid drift hazards, the following application equipment and practices should be used:

Nozzle height: Maximum of 10 feet above the crop.



Nozzle orientation: Nozzles must be oriented so as to discharge straight back with the air stream (opposite the direction of travel of the aircraf or at some angle between straight back and straight down. For optimal coverage when applying Basagran + MCPA by air in rice, orient all nozzles straight down.

Nozzles must not be located further out than three-fourths the distance f the center of the aircraft to the end of the wing or rotor.

Do not apply Basagran + MCPA by aircraft when wind is blowing at velocity more than 6 mph. Coarse sprays (larger droplets) are less likely to drif

Do not apply tank mix by air if ornamentals or sensitive non-target crops such as cotton, sugar beets, sunflowers okra, are within 200 feet downwin

In California, do not apply tank mix by air within 200 feet of ornamental or sensitive non-target crops, such as cotton, sugar beets, sunflowers or okra.

Applicator must follow the most restrictive use cautions of the Basagran MCPA label to avoid drift hazards, including those found in this labeling well as applicable state and local regulations and ordinances.

Use a smoke generator or other means near the site of application to det mine direction and extent of air movement. Observation of air/smoke movement will help determine appropriate drift control measures needed or avoid application when smoke movement is toward nearby susceptible crops. Do not spray when wind is blowing towards susceptible crops.

### Addition of Oil Concentrate to Spray Tank

A nonphytotoxic oil concentrate (commonly referred to as oil concentrate) should be added to the spray tank for certail weed problems as recommende The oil concentrate must contain either a petroleum or vegetable oil base and must meet the following criteria: 1) be nonphytotoxic, 2) contain on EPA-exempt ingredients, 3) provide good mixing quality in the jar test (s below), and 4) be successful in local experience.

The exact composition of suitable products will vary, however, vegetable petroleum oil concentrates should contain emulsifiers which provide good mixing quality. For vegetable oil concentrates, it has been observed that highly refined vegetable oils are more satisfactory than unrefined vegeta oils. For additional information see "Jar Test for Estimating Suitabilit of Oil Concentrates" at the end of this section.



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#### Rate of Oil Concentrate:

Ground application - 2 pints/acre (maximum)
Air application - 2 pints/acre (maximum)

Mixing/Spraying: Fill tank of a thoroughly clean sprayer half to two-thifull with clean water. Start agitation, add Basagran then MCPA, and allo to mix thoroughly. Add oil concentrate (or ionphytotoxic oil) and remain volume of water. Maintain constant agitation during application.

In California, when adding a nonphytotoxic oil (containing emulsifier) to the spray solution of Basagran + MCPA/water, add at a range of 4 to 5% by volume (4-5 gallon/100 gallons spray solution) for each application by ground or air,. The oil should have an unsulphonated residue rating of 9 or above.

Or, when adding oil concentrate in California, add at the maximum rate of 2 pints per acre for ground and aerial application. Refer to section entit Addition of Oil Concentrate to Spray Tank for additional information.

# Jar Test for Estimating Suitability of Oil Concentrates.

- 1. Water supply: Use only water from intended source and at the source temperature.
- 2. Amount of water in jar: Ground Application - For 20 gal/A spray volume use 3 3/4 cups (800 ml) water.

Air application - For 10 gal/A spray volume use 1 2/3 cup (400 ml) of water.

For other spray volumes, adjust proportionately to above.

3. Amount of herbicide(s) and oil concentrate to add: Add herbicide(s) a oil concentrate at the rate of 1 teaspoon (5 ml) for each pint of recommended label rate.

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- 4. Add components in following sequenc , gently mixing between component additions:
  - 1) Basagran
  - 2) MCPA
  - 3) Oil concentrate or nonphytotoxic oil
- 5. Cap jar, invert 10 cycles, let stand for 15 minutes, evaluate.
- 6. Evaluation: An ideal tank mix combination will be uniform; thus, the suitability of the oil concentrate is questionable if any of the following are observed:

Free oil at the surface - film or globules.

Flocculation - fine particles which may be suspended in the liquid or found as a precipitated layer at the bottom of the jar.

Clabbering - thickening texture (coagulated) resembling yogurt or a curd-like texture as with cottage cheese.

MCPA4A

### APPLICATION WEED SIZE AND RATE TABLE

	Weed Growth Stages					
Weeds Controlled	Drained Leaf Stage	Fields   Max.  Height	Flooded F   Max. Height   Above Soil	Max. Height		
Ducksalad	6-10	6"	not reco	mmended		
Redstem	6-10	8"	8"	4-6"		
Spikerush	6-8	8"	not rec	commended		
Cal. Arrowhead (annual)	Up to 4	7"	l 7"	5-6"		
Gregg's Arrowhead (perennial)	Up to 4	J 7"	7"	5-6"		
River Bulrush	6-8**	10-30	10-30"*	10-24		
Roughseed Bulrush	2-4**	10"	10"**	6-8"		
Roundleaf Waterhyssop	2-4	2-4	floating	1-2"		
Smallflower Umbrellaplant	4-6**	8"	8***	6-8"		

<sup>\*</sup> Land preparation should be such that rhizomes are thoroughly cut up so there are no more than 2 tubers per rhizome section remaining. Apply Basagran & MCPA when 10-15% of the river bulrush plants are flowering.

\*\* Apply Basagran & MCPA before weeds are flowering.

		APPLICATION	RATE	TABLE	-	•	:
BASAGRAN		MCPA (Amine Formulation) (4 lb. ae/gallon)	MCPA Sodie		e/ga	ım-Salt (gallon)	
2 pints/A		0.3 pint/A		0.6	pint	/ <b>λ</b>	••••••••••••••••••••••••••••••••••••••

#### RESTRICTIONS AND LIMITATIONS

Rice straw may be fed to livestock up to 7 days before slaughter.

Do not apply Basagran + MCPA to rice with ground eq.ipment when field is flooded because splashing will wash Basagran and MCPA off weed leaf surfaces and ineffective control may result.

Do not apply more than 6 pints of Basagran per acre in one season. (Maximum of 4 pints per acre in first crop and 2 pints per acre in second [ratoon] crop.)

Vapors from this application may injure susceptible plants in the immediate vicinity. Do not apply when weather conditions favor drift from areas treated.

Do not apply more than 1.5 pounds acid equivalent of MCPA per acre in one season.

In California, do not apply Basagran + MCPA by air when temperature exceeds 90°F as reduced weed control may result and the potential for drift of MCPA is increased.

Rainfall soon after application (within 8 hours) may nullify the effectiveness of Basagran + MCPA.

Do not grow crayfish or catfish in rice fields treated with Basagran + MCPA.

Clean sprayer thoroughly prior to application of Basagran, particularly if a herbicide was used which has the potential to injure the crop to be sprayed with Basagran + MCPA.

Spray equipment used in this application should be thoroughly cleaned before using for any other purpose.

### ENVIRONMENTAL HAZARDS

Do not apply directly to lakes, ponds or streams.

Do not contaminate water by cleaning of equipment or disposal wastes.

#### STORAGE AND DISPOSAL

Do not allow product to freeze.

Do not contaminate water, food, or feed by storage or disposal.

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Triple rinse container (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Do not reuse empty container.

# **Appendix**

The following are scientific names for the weeds listed on this label.

Common Name Scientific Name

Arrowhead, California

(annual Sagittaria montevidensis

Arrowhead, Gregg's

(perennial) Sagittaria longiloba

Ducksalad Heteranthera limosa

Redstem Ammania auriculata

River bulrush Scirpus fluviatilis

Roughseed bulrush Scirpus mucronatus

Roundleaf waterhyssop Bacopa rotundifolia

Smallflower

umbrellaplant Cyperus difformis

Spikerush Eleocharis species

#### CONDITIONS OF SALE AND WARRANTY

The Directions for Use of this product reflect the opinion of experts bas on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of su factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyo the control of BASF CORPORATION "BASF" or the Seller. All such risks sha be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on t label and is reasonably fit for the purposes referred to in the Direction for Use, subject to the inherent risks referred to above. BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRENTY OF FITNESS OR MERCHANTABILITY OR ANY OT EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIAB FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OF HANDLING OF THIS PRODUCT. BASF and the Seller offer this product, and th Buyer and user accept it, subject to the foregoing Conditions of Sale and Warranty which may be varied only by agreement in writing signed by a dul authorized representative of BASF.