



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

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SUBJECT: Evaluation of Proposed Experimental Use Permit (EUP) for an
Orthosulfamuron Crop-Destruct Use on Rice

TO: Erik Kraft, Product Manager
Registration Division

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Kevin Costello 12/13/04

THRU: Elizabeth Behl, Branch Chief
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Environmental Fate and Effects Division (7507C)

E. Behl 12/13/04

Isagro USA has applied for an Experimental Use Permit (EUP) for an orthosulfamuron crop-destruct use on rice. The total maximum acreage under this proposed research program would be 200 acres, with no more than 100 acres treated with orthosulfamuron in any state in which it will be applied. However, since the criterion described below concerning potential risk to endangered species is not also met, EFED is not able to give expedited review and approval for this EUP. Further details on the location of the proposed experimental use fields in relation to the likely location of endangered plants would help resolve remaining questions related to the EUP.

Background

EPA Pesticide Registration (PR) Notice 2003-2 states that "EPA believes that it is likely that it would be able to give expedited review and approval to applications" (for an EUP) if certain conditions are met. The conditions relevant to the ecological risk assessment and drinking water assessment for orthosulfamuron include the following:

1. The application is not for a food use...;

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2. The application proposes use on less than 2000 total acres for a major use; less than 100 total acres for an aquatic or minor use;

3. No more than 100 acres per watershed...; and

4. The application demonstrates either a) that the Levels of Concern (LOC) for endangered plants are not exceeded or b) that no counties containing endangered species will be included in the EUP program per the Endangered Species Act.

Discussion

The proposed EUP would be for use of orthosulfamuron for rice crop destruction, which is a non-food use related to a major crop. Isagro provided the Agency a table which details the states and counties in which test fields would be located, and the maximum number of acres to be treated in each county. One hundred acres at most would be located in the state of California, and a maximum combined 100 acres would be located in Arkansas and Louisiana. Given the distance between California and the other two states, no more than 100 acres could be located within the same watershed.

However, orthosulfamuron is a sulfonylurea herbicide. Based on results of yet unreviewed data provided by the registrant, and previous experience with sulfonylurea herbicides, it is likely that an EFED risk assessment would lead to a finding of potential risk to non-target plants. Attached is a list of endangered plants associated with rice growing areas in Arkansas and California, obtained through the EPA database LOCATES. There are apparently no endangered plants located in the rice growing regions of Louisiana.

Isagro provided a list of counties in which they propose to locate experimental use fields (also attached). There is a single endangered plant located in Colusa County potentially associated with rice areas, and three in Glenn County. The table provided by Isagro does not indicate a specific county in Arkansas, but there are three endangered plants potentially associated with rice areas in that state.

Additional information on the proposed location of EUP sites in California and Arkansas, and the likely habitats of the listed endangered plants, would allow a refined assessment of the potential risk to endangered plants from the proposed experimental use study. Additional information on the agronomic practices involved in rice crop destruct uses would allow a better assessment of potential exposure to endangered plants. For instance, the proposed experimental use study in Glen County would apparently be performed with the granular formulation of orthosulfamuron, which would essentially eliminate concerns for spray drift. However, since that field would be under permanent flood cultivation (see Isagro's attached table), exposure might be possible if paddy water is intermittently allowed to flow from the paddy out of the field.

SECTION G

EFFECTIVENESS DATA

The total maximum acreage under this program is 200 acres. The EUP will be conducted as crop-destruct. The maximum amount of active ingredient applied as a result of application of the formulated products IR5878 50 WG and IR5878 0.5 GR is 14 pounds.

PROPOSED EXPERIMENTAL USE PROGRAM (EUP) FOR PLANTINGS FROM MARCH 2005 THROUGH MARCH 2006					
State	County	Protocol	Maximum Acres Dry Seeded	Maximum Acres Water Seeded	Maximum Pounds Active Ingredient
Arkansas	Arkansas	Efficacy	50	0	3.5 ^c
California	Colusa	Efficacy	0	30 ^a	2.1 ^c
	Sutter	Efficacy	0	35 ^b	2.4 ^d
	Glen	Efficacy	0	35 ^b	2.4 ^d
Louisiana	Arcadia	Efficacy	0	20	1.4 ^c
	Richland Parish	Efficacy	15	0	1.1 ^c
	Vermillion	Efficacy	0	15	1.1 ^c
GRAND TOTAL			65	135	14

^a Pin point cultivation will be used.

^b Permanent flood cultivation will be used.

^c Calculated as IR5878 50 WG.

^d Calculated as IR5878 0.5 GR.

Pounds active ingredient (a.i.) based on following example calculations:

IR5878 50 WG: 50 acres x 2.14 oz 50 WG/A=107 oz 50 WG x 51.5% (a.i./50 WG) =55.105 oz/a.i. x 1 lb/16 oz=3.444 lbs. a.i. rounded to 3.5 lbs. a.i.

IR5878 0.5 GR: 35 acres x 13 lbs. 0.5 GR/A=455 lbs. 0.5 GR x 0.51% (a.i./0.5 GR)=2.3205 lbs a.i. rounded to 2.4 lbs. a.i.

Species Listing by State for Crop

Rice (163)

Minimum of 1 Acre

Status: County
presence:

Arkansas

County

Clay (410502 Acres)

Plant

PONDBERRY	<i>Lindera melissifolia</i>	Endangered known
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Drew (534819 Acres)

Plant

GEOCARPON MINIMUM	<i>Geocarpon minimum</i>	Endangered known
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Jackson (410524 Acres)

Plant

PONDBERRY	<i>Lindera melissifolia</i>	Endangered known
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Lawrence (379094 Acres)

Plant

PONDBERRY	<i>Lindera melissifolia</i>	Endangered known
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Woodruff (380196 Acres)

Plant

PONDBERRY	<i>Lindera melissifolia</i>	Endangered known
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Yell (607250 Acres)

Plant

HARPERELLA	<i>Ptilimnium nodosum</i>	Endangered known
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California

County

Alameda (475798 Acres)

Plant

BIRD'S BEAK, PALMATE-DRACTED	<i>Cordylanthus palmatus</i>	Endangered known
CLARKIA, PRESIDIO	<i>Clarkia franciscana</i>	Endangered possible
DUDLEYA, SANTA CLARA VALLEY	<i>Dudleya satchellii</i>	Endangered possible

Species Listing by State for Crop

Rice (163)

Minimum of 1 Acre

Status: County presence:

California

County

Alameda (475798 Acres)

FIDDLENECK, LARGE-FLOWERED	<i>Amsinckia grandiflora</i>	Endangered	known
GOLDFIELDS, CONTRA COSTA	<i>Lasthenia conjugens</i>	Endangered	known
MANZANITA, PALLID	<i>Arctostaphylos pallida</i>	Threatened	known
NAVARRETIA, FEW-FLOWERED	<i>Navarretia leucocephala</i> ssp. <i>pauciflora</i> (=N. <i>pauciflora</i>)	Endangered	possible
NAVARRETIA, MANY-FLOWERED	<i>Navarretia leucocephala</i> ssp. <i>plieantha</i>	Endangered	possible
STONECROP, LAKE COUNTY	<i>Parvisedum leiocarpum</i>	Endangered	possible

Butte (1073338 Acres)

Plant

GRASS, HAIRY ORCUTT	<i>Orcuttia pilosa</i>	Endangered	known
GRASS, SLENDER ORCUTT	<i>Orcuttia tenuis</i>	Threatened	known
MEADOWFOAM, BUTTE COUNTY	<i>Limnanthes floccosa</i> ssp. <i>californica</i>	Endangered	known
SPURGE, HOOVER'S	<i>Chamaesyce hooveri</i>	Threatened	known
TUCTORIA, GREEN'S	<i>Tuctoria greenei</i>	Endangered	known

Colusa (739987 Acres)

Plant

BIRO'S-BEAK, PALMATE-BRACTED	<i>Cordylanthus palmatus</i>	Endangered	known
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Fresno (3851096 Acres)

Plant

ADOBE SUNBURST, SAN JOAQUIN	<i>Pseudobahia peirsonii</i>	Endangered	known
BIRD'S-BEAK, PALMATE-BRACTED	<i>Cordylanthus palmatus</i>	Endangered	known
CHECKER-MALLOW, KECK'S	<i>Sidalcea keckii</i>	Endangered	known
DUDLEYA, SANTA CLARA VALLEY	<i>Dudleya setchellii</i>	Endangered	possible
GOLDEN SUNBURST, HARTWEG'S	<i>Pseudobahia bahiifolia</i>	Endangered	known
GRASS, SAN JOAQUIN VALLEY ORCUTT	<i>Orcuttia inaequalis</i>	Threatened	known
JEWELFLOWER, CALIFORNIA	<i>Caulanthus californicus</i>	Endangered	known
OWL'S-CLOVER, FLESHY	<i>Castilleja campestris</i> ssp. <i>succulenta</i>	Endangered	known
PUSSYPAWS, MARIPOSA	<i>Calyptidium pulchellum</i>	Threatened	known

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Species Listing by State for Crop

Rice (163)

Minimum of 1 Acre

Status: County
 presence:

California

County

Fresno (3851096 Acres)

WOOLLY-THREADS, SAN JOAQUIN	<i>Monolopia (=Lambertia) congdonii</i>	Endangered known
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Glenn (849369 Acres)

Plant

GRASS, HAIRY ORCUTT	<i>Orcuttia pilosa</i>	Endangered known
SPURGE, HOOVER'S	<i>Chamaesyce hooveri</i>	Threatened known
TUCTORIA, GREEN'S	<i>Tuctoria greenei</i>	Endangered known

Madera (1378090 Acres)

Plant

ADOBE SUNBURST, SAN JOAQUIN	<i>Pseudobahia peirsonii</i>	Endangered known
BIRD'S-BEAK, PALMATE-BRACTED	<i>Cordylanthus palmatus</i>	Endangered possible
GOLDEN SUNBURST, HARTWEG'S	<i>Pseudobahia bahiifolia</i>	Endangered known
GRASS, HAIRY ORCUTT	<i>Orcuttia pilosa</i>	Endangered known
GRASS, SAN JOAQUIN VALLEY ORCUTT	<i>Orcuttia inaequalis</i>	Threatened known
LUPINE, CLOVER	<i>Lupinus tidestromii</i>	Endangered known
OWL'S-CLOVER, FLESHY	<i>Castilleja campestris ssp. succulenta</i>	Endangered known
PUSSYPAWS, MARIPOSA	<i>Calyptridium pulchellum</i>	Threatened known
TUCTORIA, GREEN'S	<i>Tuctoria greenei</i>	Endangered extirpated

Merced (1261957 Acres)

Plant

GRASS, COLUSA	<i>Neostaphia colusana</i>	Threatened known
GRASS, HAIRY ORCUTT	<i>Orcuttia pilosa</i>	Endangered known
GRASS, SAN JOAQUIN VALLEY ORCUTT	<i>Orcuttia inaequalis</i>	Threatened known
OWL'S-CLOVER, FLESHY	<i>Castilleja campestris ssp. succulenta</i>	Endangered known
SPURGE, HOOVER'S	<i>Chamaesyce hooveri</i>	Threatened known
TUCTORIA, GREEN'S	<i>Tuctoria greenei</i>	Endangered known

Sacramento (637114 Acres)

Plant

Species Listing by State for Crop

Rice (163)

Minimum of 1 Acre

Status: County
presence:

California

County

Sacramento (637114 Acres)

EVENING-PRIMROSE, ANTIOCH DUNES	<i>Oenothera deltoides</i> ssp. <i>howellii</i>	Endangered	known
GRASS, SACRAMENTO ORCUTT	<i>Orcuttia viscida</i>	Endangered	known
GRASS, SAN JOAQUIN VALLEY ORCUTT	<i>Orcuttia inaequalis</i>	Threatened	known
GRASS, SLENDER ORCUTT	<i>Orcuttia tenuis</i>	Threatened	known

San Joaquin (912800 Acres)

Plant

BIRD'S-BEAK, PALMATE-BRACTED	<i>Cordylanthus palmatus</i>	Endangered	known
FIDDLENECK, LARGE-FLOWERED	<i>Amsinckia grandiflora</i>	Endangered	known
OWL'S-CLOVER, FLESHY	<i>Castilleja campestris</i> ssp. <i>succulenta</i>	Endangered	known

Stanislaus (969404 Acres)

Plant

ADOBE SUNBURST, SAN JOAQUIN	<i>Pseudobahia peirsonii</i>	Endangered	known
GOLDEN SUNBURST, HARTWEG'S	<i>Pseudobahia bahiifolia</i>	Endangered	known
GRASS, COLUSA	<i>Neostapfia colusana</i>	Threatened	known
GRASS, HAIRY ORCUTT	<i>Orcuttia pilosa</i>	Endangered	known
OWL'S-CLOVER, FLESHY	<i>Castilleja campestris</i> ssp. <i>succulenta</i>	Endangered	known
SPURGE, HOOVER'S	<i>Chamaesyce hooveri</i>	Threatened	known
TUCTORIA, GREEN'S	<i>Tuctoria greenei</i>	Endangered	extirpated

Tehama (1895715 Acres)

Plant

GRASS, HAIRY ORCUTT	<i>Orcuttia pilosa</i>	Endangered	known
GRASS, SLENDER ORCUTT	<i>Orcuttia tenuis</i>	Threatened	known
MEADOWFOAM, BUTTE COUNTY	<i>Limnanthes floccosa</i> ssp. <i>californica</i>	Endangered	known
SPURGE, HOOVER'S	<i>Chamaesyce hooveri</i>	Threatened	known
TUCTORIA, GREEN'S	<i>Tuctoria greenei</i>	Endangered	known

Yolo (654566 Acres)

Plant

Species Listing by State for Crop

Rice (163)

Minimum of 1 Acre

Status: County presence:

California

County

Yolo (654566 Acres)

BIRD'S-BEAK, PALMATE-BRACTED

Cordylanthus palmatus

Endangered known

GRASS, COLUSA

Neostapfia colusana

Threatened known

GRASS, SOLANO

Tuctoria mucronata

Endangered known

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STAKILL

Diuron and Bromacil Weed Killer

<i>Active Ingredient</i>	<i>By Weight</i>
Bromacil (5-bromo-sec-butyl-6-methyluracil)	4 %
Diuron [3-(3,4-dichlorophenyl)-1,1-dimethylurea]	5 %
<i>Inert Ingredients</i>	91 %
TOTAL	100%

50 pounds net weight

EPA Reg. No. 9603-1

EPA Est. No. 33560-TN-1

KEEP OUT OF REACH OF CHILDREN CAUTION STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center immediately. Drink promptly a large quantity of milk or egg whites, or if not available drink large quantities of water.

IF INHALED: Remove victim to fresh air and apply respiration, if indicated.

IF ON SKIN: Wash promptly with soap and water. Rinse thoroughly.

IF IN EYES: Rinse eyes with water for at least 15 minutes and get medical attention.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed. Do not get in eyes, on skin, or in clothing. May cause irritation of nose, throat, or skin.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Shoes plus socks.

Protective eyewear.

Chemical resistant gloves.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Do not store near food or feed products. Store out of the weather.

ENVIRONMENTAL HAZARDS

For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water used by wildlife and aquatic life or for domestic and irrigation purposes. Do not contaminate water when disposing of equipment washwaters or rinsate.

GENERAL INFORMATION

STAKILL is a non-selective herbicide that can be applied before or after plant growth begins. Since STAKILL enters plants through their roots, its effectiveness is dependent on rainfall to move the chemical into the root zone. Very dry soil conditions and lack of rainfall may result in poor weed control.

Thoroughly clean spreading equipment with a suitable chemical cleaner before using for other purposes (or do not use the same spreading equipment for other purposes).

APPLICATION INFORMATION

Use only in areas where complete control of all vegetation is desired, such as industrial sites, right-of-ways, lumberyards, petroleum tank farms, around farm buildings, along fence lines and similar areas. When applied to the soil, this product usually inhibits all plant growth for a year or more. It should not be used on land to be cropped, or near adjacent desirable trees, shrubs, or in greenhouses as injury may occur. This product is not to be used in any recreational areas or in or around homes.

STAKILL Granular should be applied as furnished with a seed spreader, a fertilizer spreader, a shaker-type applicator or with any equipment which will distribute the chemical uniformly over the area to be treated.