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# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

SEP 2 4 2003

Ms. Kimberly S. Gilbert Regulatory Manager Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268

Dear Ms. Gilbert:

Subject: Python® WDG

EPA Registration No. 62719-277

Application and Your Letter Dated July 23, 2003, Request to Amend Registration by Adding Supplemental Labeling for Python WDG + FirstRate® Tank Mix for Postemergence Broadleaf Weed Control in Soybeans (For Distribution and Use Only in the States of

Alabama, Arkansas, Louisiana, Mississippi, Missouri and Tennessee)

The subject application to amend the registration for Python WDG has been reviewed and found to be acceptable under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, provided that the labeling reflects the following revisions:

- 1. Under "Directions for Use" section, 3rd paragraph, revise The second sentence to read: "...., and remaining reserve of viable ungerminated weed seeds in the surface soil."
- 2. Revise the "Use Directions for Specific Weeds:" by adding "2. Wild mustard: For optimum control, apply before wild mustard plants exceed four inches in diameter."; and change 2. to 3. to correctly reflect these notes as they appear in the chart.
- 3. Revise the "Use Restrictions", Preharvest Interval: to read: "Do not harvest soybeans for 70 days after the last application of this tank mix".

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- 4. Under "Directions for Use" section, revise the statement: "Refer to the product labels for Python WDG and FirstRate for specific use restrictions, use precautions, and rotational crop intervals." by adding "tank mixing instructions".
- 5. Submit one (1) copy of the final printed label prior to your shipment of this pesticide product under the enclosed revised label.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA, section 6(e). Your release for shipment under this labeling constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

Joanne J. Miller

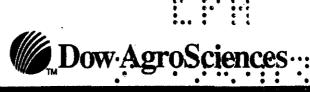
Joanne I. Miller Product Manager (23)

Herbicide Branch

Registration Division (7505C)

Enclosure

# Supplemental Labeling



Dow AgroSciences LLC

9330 Zionsville Road

Indianapolis, IN 46268-1054 USA

# Python\* WDG

EPA Reg. No. 62719-277

# Python WDG + FirstRate Tank Mix For Postemergence Broadleaf Weed Control In Soybeans

(For Distribution and Use Only in the States of Alabama, Arkansas, Louisiana, Mississippi, Missouri and Tennessee)

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for Python\* WDG herbicide before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Except as described in this supplemental labeling, use of Python WDG is subject to all precautions and limitations imposed by the labels affixed to the product containers.

#### **Directions for Use**

The Python\* WDG herbicide plus FirstRate\* herbicide tank mix may be applied postemergence to soybeans any time from full emergence of the first trifoliate leaf up to the 50% flowering stage of growth. Application prior to full emergence of the first trifoliate leaf may cause temporary yellowing or chlorosis of soybeans. Additional tank-mix partners may cause other effects regardless of the application timing.

The Python WDG + FirstRate tank mix may be applied using ground or aerial equipment. See Aerial Application and Spray Drift Management instructions below for specific requirements. Refer to the product labels for Python WDG and FirstRate for specific use restrictions, use precautions, and rotational crop intervals.

Postemergence applications of Python WDG + FirstRate may provide residual soil activity on broadleaf weeds, excluding sicklepod (see postemergence weed list). Length and effectiveness of residual activity from a postemergence application will vary and is dependent on timeliness of rainfall following application (0.5 inches or more is needed within a week), degree of crop/weed canopy interception of the herbicide spray, and remaining reserve of viable ungerminated weed seeds surface soil.

#### **Application Rates and Timing**

Apply 0.12 oz/acre of Python WDG + 0.30 oz/acre of FirstRate. . If required, a second application of 0.12 oz/acre of Python WDG + 0.30 oz/acre of FirstRate may be made, but must occur at least 14 days after the first. Apply when weeds are actively growing and before weeds exceed specified growth stages (number of true leaves per plant) indicated in the table below. Applications made to larger weeds or to weeds under stress may result in unsatisfactory control. The Python WDG + FirstRate tank mix must include either a crop oil concentrate, a nonionic surfactant, or nonionic surfactant plus urea ammonium nitrate or ammonium sulfate. Python WDG + FirstRate may be applied alone or in tank mix combination with other postemergence herbicides. Follow applicable use directions, precautions and limitations on the labels of the respective product labels. When tank mixing, the most restrictive label limitations apply.

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ACCEPTED
with COMMENTS
In EPA Letter Dated

SEP 2 4 2003

D06-039-XXX Initial printing. Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

**Broadleaf Weeds Controlled and Optimum Growth Stages for Treatment** 

The following weeds are controlled by the Python WDG + FirstRate tank mix applied postemergence at the indicated weed stage of growth. Python WDG + FirstRate does not control known ALS resistant biotypes of listed weeds.

Numbers is parentheses (-) refer to "Use Directions for Specific Weeds" below.

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Weeds Controlled	Leaf Number at Application (Optimum to Maximum)	Maximum Height (inches)
cocklebur	2 to 8	6
Dayflower, Asiatic	2 to 6	••
Dayflower, marsh	2 to 6	**
Dayflower, spreading	2 to 6	••
jimsonweed	2 to 4	4
mallow, venice	2 to 4	<3
horseweed (marestail)	2 to 4	6
marshelder	4 to 6	10
morningglory (annual) (1), including: entireleaf, ivyleaf, palmleaf, pitted, red, smallflower, tall	2 to 4	6
mustard, wild (2)	2 to 4	4
ragweed, including: common, giant	4 to 8	10
	4 to 6	10
sicklepod (3)	cotyledon - to 1	<2
smartweed, Pennsylvania	2 to 4	6
sunflower, common	4 to 8	12
teaweed (prickly sida)	1 to 2	2
velvetleaf	2 to 4	6
Weeds Suppressed		
burcucumber	2 to 4	6
Canada thistle		10
copperleaf, hophornbeam	1 to 2	4
hemp sesbania	Cotyledon to 1	<1
nutsedge, yellow		8
pigweed species, including: redroot, smooth, spiny	1 to 2	<1

# **Use Directions for Specific Weeds:**

1. Morningglory: Apply before morningglory begins to send out runners.

 Reduced control will result if applications are made to sicklepod plants that are beyond the 1-leaf stage of growth. Additional herbicide treatment may be required to control sicklepod that germinates after application.

#### Adjuvant System Options for Postemergence Application

Crop oil concentrate, a nonionic surfactant or a nonionic surfactant plus ammonium nitrate solution must be included in the spray solution. Use Python WDG + FirstRate in combination with one of the following adjuvant systems approved for application to growing crops:

- Crop oil concentrate at 1.2 gallons/100 gallons of spray mixture (1.2% v/v).
   Note: Crop oil concentrate may increase the potential for crop injury in soybeans.
- Nonionic surfactant at 1 to 2 pt/100 gallons of spray mixture (0.125 0.25% v/v) plus urea ammonium nitrate solution at 2.5 gal/100 gallons (2.5% v/v). Dry ammonium sulfate may be used at a rate of 2.lb per acre (8.5 to 17 lb/100 gallons of spray mixture) as a substitute for urea ammonium nitrate.

Nonionic surfactant alone at 2 pt/100 gallons of spray mixture (0.25% v/v).

Note: When tank mixing with other products that are formulated with adjuvants (as indicated by the label of the tank mix product, e.g., Roundup Ultra), it is not necessary to add additional adjuvants to the tank

Environmental Conditions and Herbicidal Activity of Python WDG + FirstRate Tank Mix
Best weed control results are obtained when the tank mix is applied when weeds are small and actively
growing, when daytime temperatures are warm (70°F or more) and soil moisture is adequate for active
weed growth both before and after application. If weeds are under drought stress, especially common
ragweed, giant ragweed, and marestail, consider delaying application until more favorable conditions
resume. Application when weeds are moisture stressed or taller than the recommended height for control
may result in only partial control.

- Python WDG + FirstRate is rainfast in approximately 2 hours.
- Applications made immediately prior to, during, or immediately following periods of large day/night temperature fluctuations or where daytime temperatures do not exceed 60°F may decrease weed control
- Poor weed control may result if application is made to plants under stress from:
  - ▶ abnormally hot or cold weather
  - ▶ environmental conditions such as drought, water-saturated soils, hail damage, or frost
  - prior herbicide applications

#### **Use Restrictions:**

- Do not apply more than 0.24 oz per acre Python WDG + 0.6 oz per acre FirstRate per crop growing season postemergence. Following an initial application of 0.12 oz per acre of Python WDG + 0.3 oz per acre of FirstRate, a second postemergence application of up to 0.12 oz per acre of Python WDG + 0.3 oz per acre of FirstRate may be made to control late germinating weeds. If required, the second application should occur at least 14 days after the first.
- Do not exceed 0.07 lb per acre per year cumulative application of the active ingredient flumetsulam (1.4 oz Python WDG) per year if using this product in sequential or tank mix applications with other products containing flumetsulam.
- Do not exceed 0.055 lb per acre per year cumulative application of the active ingredient cloransulam methyl (1.05 oz of FirstRate) if using this product in sequential or tank mix applications with other products containing cloransulam methyl.
- Do not graze or feed treated soybean forage, hay or straw to livestock.
- Preharvest Interval: Do not harvest soybeans for 70 days after application of this tank mix.

### **Rotational Crop Restrictions**

When tank mixing with other herbicides, follow crop rotation guidelines on the label of each product used. The following rotational crops may be planted at the indicated interval following application of the Python plus FirstRate tank mix. Unusual climatic or environmental conditions that may increase the likelihood of rotational crop injury include lower than normal rainfall and/or soil temperatures in the fall and spring; and/or soil pH extremes.

Crop	Rotation Interval (Months) (1)
wheat	3
corn, sorghum, cotton, peanuts, rice	9
tobacco (2)	30
sugar beets, sunflowers and other crops not listed (3)	30

1. Minimum number of months that must pass before planting these crops after two applications of 0.12 oz per acre of Python WDG + 0.3 oz per acre of FirstRate applied postemergence.

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- 2. Transplanted tobacco may be planted 10 months after application of 0.12 oz per acre of Pyth(n WDG + 0.3 oz per acre of FirstRate. Tobacco in seedbed nurseries may be planted 18 months after application of 0.12 oz per acre of Python WDG + 0.3 oz per acre of FirstRate and following a successful field bioassay. A rotation interval of 30 months and a successful field bioassay is required for all applications greater than of 0.12 oz per acre of Python WDG + 0.3 oz per acre of FirstRate.
- 3. Rotation to sugar beets, sunflowers and all other crops not listed require a 30-month-rotation interval and a successful field bioassay. Refer to respective tank mix product labels for field bioassay instructions.

# **Aerial Application**

Aerially apply Python WDG + FirstRate in a minimum spray volume of 5 gallons per acre. Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage.

#### **Precautions**

- Do not apply when weather conditions favor drift to non-target sites.
- To minimize spray drift to non target areas:
  - Use low-pressure application equipment capable of producing a large droplet spray.
  - Do not use nozzles that produce a fine-droplet spray.
  - Minimize drift by using sufficient spray volume to ensure adequate coverage with large droplet size sprays.
  - Keep ground-driven spray boom as low as possible above the target surface.
  - Do not apply when wind is gusting or wind speed exceeds 15 mph as uneven spray coverage and drift may result.

Follow general guidance in the following Spray Drift Management section.

# **Spray Drift Management**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1. The distance of the outer most nozzles on the boom must not exceed 75% the length of the wingspan or 90% of rotor width.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the following Aerial Drift Reduction Advisory Information:

Importance of Droplet Size: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

#### **Controlling Droplet Size:**

**Volume-**Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows product larger droplets.

Pressure-Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles-Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation-**Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

**Nozzle Type-**Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Length-For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application-**Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. **Making applications** at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. Inversion conditions begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversion conditions can also be identified by the movement of smoke from a ground source or aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

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