

SEP 13 1995

Ms. Mary Lou Hawkins
E.I. du Pont de Nemours & Company
P.O. Box 80038
Wilmington, Delaware 19880-0038

Subject: Revised Labeling
DuPont Vendex 50WP Miticide
EPA Registration Number 352-480
Your Submission Dated July 14, 1995

Dear Ms. Hawkins:

Your submission of July 14, 1995 was an application for reregistration or "8-Month Response," and was addressed to Edward Setren of the Special Review and Reregistration Division. The submission was part of the reregistration process for the active ingredient fenbutatin oxide, and will be reviewed accordingly.

Because of your interest in receiving stamped ("Accepted") copies of the most recent labeling, however, we have treated the revised labeling included with your submission as if it were part of a label amendment application. This is a registration, not a reregistration, action. Our review was based solely on current requirements.

The labeling, reviewed in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) as amended, is acceptable provided that you make the labeling changes indicated below before you release the product for shipment bearing the amended labeling:

1. Add the word "POISON," in red, together with the skull and crossbones in close proximity to the signal word.
2. Revise the Hazards to Humans and Domestic Animals section to:

DANGER! Fatal if inhaled. Do not breathe dust or spray mist. Wear specific respiratory protective devices approved by the Mine Safety and Health

2-89

Administration and the National Institute for Occupational Safety and Health.

Corrosive. This product may cause skin irritation and eye damage. Do not get in eyes, on skin, or on clothing.

Do not graze or feed animals on cover crops grown in treated areas. Avoid contamination of food, feedstuffs, and domestic water supplies.

Harmful if swallowed. Avoid contamination of food.

(The revisions required in 1. and 2. above are based on our review of an acute inhalation study that you submitted on June 13, 1995 in accordance with FIFRA section 6(a)(2). We will respond to that submission in a separate letter.)

3. Revise the first sentence of the Environmental Hazards section to "This pesticide is toxic to birds, mammals, fish, and aquatic invertebrates."

4. Revise the last sentence of the Directions for Use section on page 2 to "Apply this product only as recommended on the label."

Submit five (5) copies of your final printed labeling before you release the product for shipment.

A stamped copy of the labeling is enclosed for your records.

You should note that, as stated above, this is a registration action; additional labeling changes may be required as a result of the reregistration process.

Sincerely yours,

DHE

Dennis H. Edwards, Jr.
Product Manager (19)
Insecticide-Rodenticide Branch
Registration Division (7505C)

Enclosure

RESTRICTED USE PESTICIDE

DUE TO VERY HIGH TOXICITY TO AQUATIC ORGANISMS

For sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Direct supervision for this product requires the certified applicator to review federal and supplemental label instructions with all personnel prior to application, mixing, loading, or repair or cleaning of application equipment.



Vendex[®] 50WP

miticide

Water Soluble Bag

Active Ingredient	By Weight
Fenbutatin-oxide [Hexakis (2-methyl-2-phenylpropyl) distannoxane]	50%
Inert Ingredients	50%
TOTAL	100%

EPA Reg. No. 352-480

ACCEPTED
WITH COMMENTS
in EPA Letter Head

SEP 13 1995

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, this pesticide
registered under EPA Reg. No.

352-480

KEEP OUT OF REACH OF CHILDREN

DANGER

PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

STATEMENT OF PRACTICAL TREATMENT

If In Eyes: Hold eyelids open and flush with plenty of water. Call a physician.

If On Skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

If Swallowed: Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If Inhaled: Remove victim to fresh air. If not breathing, give artificial respiration preferably mouth-to-mouth. Get medical attention.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER! CORROSIVE. THIS PRODUCT MAY CAUSE SKIN IRRITATION, RESPIRATORY IRRITATION, AND EYE DAMAGE. Do not get in eyes, on skin, or on clothing. Avoid handling the inner bag as moisture will cause breakage.

Do not graze or feed animals on cover crops grown in treated areas. Avoid contamination of food, feedstuffs, and domestic water supplies.

Harmful if swallowed. Avoid contamination of food. Avoid breathing spray mist.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression, and convulsion may be needed.

For medical emergencies involving this product, call toll free 1-800-441-3637.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Waterproof gloves.

Shoes plus socks.

Protective eyewear.

Dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

789

PRECAUTIONARY STATEMENTS

(continued)

ENGINEERING CONTROL STATEMENTS

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR part 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift from runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

CAREFULLY OPEN ENVELOPE AND IMMEDIATELY DROP THE INNER BAG INTO THE SPRAY TANK. DO NOT OPEN OR HANDLE THE INNER BAG. MOISTURE WILL CAUSE BREAKAGE.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemically resistant gloves, such as any water proof material.
- Shoes plus socks.
- Protective eyewear.

Do not apply this product through any type of irrigation system.

VENDEX 50WP Miticide is recommended for the control of a wide range of plant feeding mites, including strains that are resistant to other miticides. VENDEX 50WP may be applied when honeybees and beneficial mites are present. VENDEX 50WP Miticide can readily be dispersed in water and can be used in conventional dilute sprayers or concentrate sprayers. Agitation is required during mixing and spraying.

Treat early. Best results are achieved when mite populations are low. Treatment is recommended when mite populations are just beginning to build. Thorough and complete coverage of foliage and fruit is necessary for optimum control. VENDEX performance is best when daily temperatures average above 70 °F; below 70 °F, performance is reduced.

In order to apply the correct amount of VENDEX dilute spray to your orchard, you must know the number of gallons of water needed to spray one acre of your trees to the point of drip. If you do not know this gallonage, you should conduct a test to determine it. Equipment dealers may be of assistance in conducting these tests.

Apply this product only as recommended on this label by ground application.

MANAGING MITE RESISTANCE

As with all acaricides, repeated exclusive use of VENDEX may lead to the build-up of resistant strains of mites in some crops. If more than one application of an acaricide is needed to control heavy and prolonged populations of mites, the choice of products with different modes of action should be considered. Additional application(s) of VENDEX during the growing season should be considered only after a minimum spray interval in excess of one generation of mites. Close observation and monitoring of field populations of mites should be an integral part of any resistance management program. If less than economic levels of control are observed and resistance is suspected, it is recommended that an acaricide with an alternate mode of action be used. In this eventuality, promptly consult your local State Agricultural Extension Service for advice on the selection of alternative materials.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **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 Inversions** sections of this label.

Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce 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 A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **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.

Controlling Droplet Size - Aircraft

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** - The boom length should not exceed 3/4 of the wing or rotor length - longer booms increase drift potential.
- **Application Height** - Application more than 10 ft above the canopy increases the potential for spray drift.

BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS.**

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They 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, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

**AIR ASSISTED (AIR BLAST)
FIELD CROP SPRAYERS**

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

**AIR ASSISTED (AIR BLAST)
TREE AND VINE SPRAYERS**

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream.

In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- *Adjust deflectors and aiming devices so that spray is only directed into the canopy.*
- *Block off upward pointed nozzles when there is no overhanging canopy.*
- *Use only enough air volume to penetrate the canopy and provide good coverage.*
- *Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.*

SPECIFIC USES

Crop	Mites Controlled	Lb/Acre †	Minimum-Maximum Gal/Acre	Pre-harvest Interval (Days)
Apples	Apple Rust Carpini Spider European Red McDaniel Spider Two-spotted Spider	1 - 2	Max 400	14
	<ul style="list-style-type: none"> * Apply when mites first appear. * Do not apply more than 2 times per season. * Apply no more than 4 lb per acre per year. 			
Pears	European Red McDaniel Spider Pear Rust Two-spotted Spider	1 - 2	Max 400	14
	<ul style="list-style-type: none"> * Apply when mites first appear. * Make no more than 2 applications per season. * Apply no more than 4 lb per acre per year. 			
Grapes	Pacific Spider, European Red, Two-spotted Spider	1 - 2.5	Max. 250	28
	<ul style="list-style-type: none"> * Apply when mites first appear. * Make no more than 2 applications per season. * Apply no more than 4 lb per acre per year. * Do not spray in less than 21 day intervals. 			
Citrus	Citrus Red Citrus Rust Texas Citrus Two-spotted Spider Yuma Spider	See below	See below	7
	CA/AZ (see mites above)	2-4	Max. 1600	
	Texas (see mites above)	2-3	Max. 800	
<ul style="list-style-type: none"> * Apply when mites first appear. * Make no more than 2 applications per year. * Apply no more than 6 lb per acre per year. * Do not apply in less than a 30-day interval. 				
<ul style="list-style-type: none"> * Apply when mites first appear. * Make no more than 2 applications per year. * Apply no more than 6 lb per acre per year. * Do not apply in less than a 60-day interval. 				

(continued on next page)

Crop	Mites Controlled	Lb/Acre †	Minimum-Maximum Gal/Acre	Pre-harvest Interval (Days)
Citrus (continued) Florida	(see mites above)	2-3	Max. 800	7
<ul style="list-style-type: none"> * Apply when mites first appear. * Make no more than 2 applications per year. * Apply no more than 4 lb per acre per year. * Residual control with VENDEX may be reduced when applied with copper or oil. * Do not apply in less than a 60 day interval. * Ground Application <ul style="list-style-type: none"> - Citrus groves may be planted close to bodies of water. Do not apply within 25 feet of lakes, reservoirs, rivers, permanent streams, natural ponds, marshes, or estuaries that border citrus groves. - For all trees within 75 feet of bodies of water (described above), apply VENDEX so that the spray is directed away from the body of water only. - Shut off the sprayer when turning at row ends. - Do not apply when gusts or sustained winds exceed 12 mph. * Aerial Application <ul style="list-style-type: none"> - Do not apply within 125 feet of water (described above). - Do not apply when gusts or sustained winds exceed 8 mph. - Do not apply in less than 10 gallons of final spray per acre. - Do not apply East of U.S. highway #1, South and East of state road #846, or South of West Palm Beach canal. - The boom length must not exceed 3/4 of the wing or rotor length (i.e. The distance of the outer most nozzles on the boom must not exceed 3/4 of the length of the wingspan or rotor). - Do not apply at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. - Nozzles must always point backward and never be pointed downwards more than 45 degrees. - For best results by air: <ul style="list-style-type: none"> - Add an adjuvant spreader that is recommended for use on Citrus fruit at rates specified by the manufacturer. - Fly every tree row middle in alternate directions. Do not fly a race track pattern. - Do not fly an across tree row pattern. 				
Peaches Plums Prunes Nectarines	European Red McDaniel Spider Pacific Spider Two-spotted Spider Big-beaked Plum Plum Nursery	1 - 2	Max. 400	14
<ul style="list-style-type: none"> * Apply when mites first appear. * Make no more than 2 applications per season. * Apply no more than 3 lbs per acre per year. 				
Cherries (including sweet and sour)	European Red McDaniel Spider Cherry Rust	1.5 - 3	Max. 600	14
<ul style="list-style-type: none"> * Apply when mites first appear. * Make no more than 2 applications per season. * Apply no more than 4.5 lbs per acre per year. 				

8/7

Crop	Mites Controlled	Lb/Acre †	Minimum-Maximum Gal/Acre	Pre-harvest Interval (Days)
Papaya U.S. (except CA)	Carmine Citrus Red Texas Citrus Broad Red Black flat	2	Min. 100 Max. 400	7
	<ul style="list-style-type: none"> * Apply when mites first appear. * Repeat as necessary to maintain mite control, making no more than 4 applications per season. * Apply no more than 8 lb per acre per year. * Do not apply more than once per month to bearing trees. 			
Almonds	Pacific Spider, European Red, Two-spotted Spider, Hickory Spider	1 - 2.5	Max. 500	14
Pecan	Pecan, Hickory			
Walnuts	Two-spotted Spider, European Red, Pacific Spider			
<ul style="list-style-type: none"> * Apply when mites first appear. * Make no more than 2 applications per season. * Apply no more than 4 lb per acre per year. 				
Strawberries	Two-spotted Spider	1.5 - 3	see below	1
	CA only	<ul style="list-style-type: none"> * Apply when mites first appear. * Make no more than 3 applications per season. * Apply no more than 9 lb per acre per season. * For good mite control, adjust spray volume and nozzle placement to assure coverage of top and underside of leaves. * Apply in sufficient water to fully cover the crop; 50 to 100 gal. per acre for small plants, 150 to 300 gal. per acre for larger plants. 		
U.S. (except CA)	Two-spotted Spider	1.5 - 2	see below	
	<ul style="list-style-type: none"> * Apply when mites first appear. * Make no more than 2 applications per season. * Apply no more than 4 lb per acre per season. * For good mite control, adjust spray volume and nozzle placement to assure coverage of top and underside of leaves. * Apply in sufficient water to fully cover the crop; 50 to 100 gal. per acre for small plants, 150 to 300 gal. per acre for larger plants. 			
Eggplant	Clover Two-spotted Spider	2 - 3	--	3
	<ul style="list-style-type: none"> * Apply when mites first appear. * Repeat as necessary to maintain control, making no more than 3 applications per year. * Apply no more than 9 lb per acre per year. * For best control thorough coverage of all leaf surfaces is required. 			

† One pound of product is equal to one soluble packet of product.

STORAGE AND DISPOSAL

STORAGE: Store in a secure, dry and temperate area. Keep container closed when not in use. Do not store near food or feed. Do not use or store around the home. Avoid contact with water. In case of spill or leak, soak up with sand, earth or synthetic absorbent and dispose of wastes in compliance with local, State and Federal regulations.

PRODUCT DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Completely empty contents of envelope into application equipment. Then dispose of empty envelope in a sanitary landfill, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

NOTICE OF WARRANTY

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Du Pont. In no case shall Du Pont be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. DU PONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

D - 071395