



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505C)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

66222-240

Date of Issuance:

JAN 18 2012

NOTICE OF PESTICIDE:

Registration  
 Reregistration

(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

MANA Diflubenzuron 80 WG

Name and Address of Registrant (include ZIP Code):

Makhteshim Agan of North America, Inc.  
4515 Falls of Neuse Rd., Suite 300  
Raleigh, NC 27609

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for reregistration/registration review of your product when the agency requires all registrants of similar products to submit data.
2. Revise the EPA Registration Number to read, "EPA Reg. No 66222-240."
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

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 of the product constitutes acceptance of these conditions. If you have any questions, please contact Jessica Rogala at 703-347-0263 or [rogala.jessica@epa.gov](mailto:rogala.jessica@epa.gov).

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

Signature of Approving Official:

Date:

*Venus Eagle*  
Venus Eagle, Product Manager 01  
Insecticide-Rodenticide Branch, Registration Division (7505P)

*January 18, 2012*



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### Restricted Use Pesticide

Due to toxicity to aquatic invertebrate animals. For retail 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.

# MANA Diflubenzuron 80 WG

## INSECT GROWTH REGULATOR

For use on oranges, grapefruit, tangerines, pummelos/pomelos and their hybrids.

(Water dispersible granule)

(Water soluble package: 10 x 3.125 oz. pouches per bag.)

(See precautions for water soluble package.)

<b>ACTIVE INGREDIENT:</b>	<b>% BY WT.</b>
Diflubenzuron N-[[[4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide: .....	80%
<b>OTHER INGREDIENTS:</b> .....	<u>20%</u>
<b>TOTAL:</b>	<b>100%</b>

### KEEP OUT OF REACH OF CHILDREN CAUTION

#### Manufactured for:

Makhteshim Agan of North America, Inc.  
4515 Falls of Neuse Rd., Suite 300  
Raleigh, NC 27609

EPA Reg. No. 66222-xxx

EPA Est. No. [REDACTED]

Net Contents: \_\_\_ Gallons

FIRST AID	
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor immediately for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of soap and water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact Prosar at 1-877-250-9291 for emergency medical treatment information.	

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

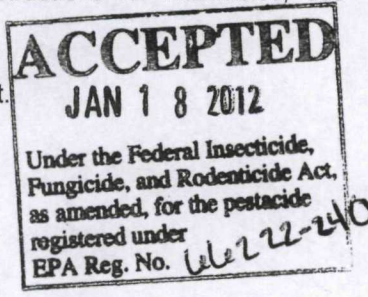
**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate or butyl, nitrile, neoprene rubber or viton
- Shoes plus socks

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.

#### USER SAFETY REQUIREMENTS

Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.





### ENGINEERING CONTROLS

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

(Water-soluble packets when used correctly qualify as a closed loading system under the WPS. Handlers handling this product while it is enclosed in intact water-soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, and socks.)

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided with all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

### USER SAFETY RECOMMENDATIONS

Users should:

- 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 pesticide is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift or runoff from treated areas may be hazardous to aquatic invertebrate organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters. This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams and springs will reduce the potential for contamination or water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

## DIRECTIONS FOR USE

### RESTRICTED USE PESTICIDE

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.

#### Precautions for water soluble package:

- Do not sell individual water soluble packages.
- Do not handle inner package with wet hands or gloves.
- Do not allow packages to become wet prior to adding to the spray tank.
- Handle outer container carefully to avoid breakage of inner water soluble packages.
- Always reseal outer container in a manner that protects remaining water soluble packages from moisture.
- Do not remove the water soluble packages from the container except for immediate use.
- Use the entire contents of a water soluble package, do not break open to use partial contents of water soluble package.
- Water soluble package must be completely dissolved before adding products containing boron to spray mixtures. If adding Micromite 80WGS to spray solutions already containing boron the water soluble packages must be pre-dissolved in water in a separate container, and then added to the spray solution.
- Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

### 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 12 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 over long-sleeved shirt and long pants
- Chemical-resistant footwear and chemical-gloves (such as Nitrile, Butyl, Neoprene, Barrier Laminate or Viton)
- Shoes plus socks

### INSTRUCTIONS AND INFORMATION

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

#### SPRAY DRIFT LABELING

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 is responsible for considering all of 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.

The distance of the outer most nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.

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 Aerial Drift Reduction Advisory Information.

#### Information on 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 Inversions).

#### Controlling Droplet Size

- Volume: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure: Do not exceed the nozzle manufacture's recommended pressures. For many nozzle types lower pressure produces larger droplets. 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 parallel to the air stream produces larger droplets than other orientations and is the recommended practice. 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 the largest droplets and the lowest drift.

#### Boom Length

For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

#### Application Height

Do not make applications at a height greater than 10 feet above 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 the 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 speed of 2 to 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 hot and dry.

**Temperature Inversions**

Do not make applications 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 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 upwards and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas**

Only apply the pesticide 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).

**INFORMATION**

Consult local agricultural authorities such as county and university extension specialists on current recommendations and refer to the Florida Citrus Pest Management Guide.

MANA Diflubenzuron 80 WG is compatible with many commonly used citrus pesticides, crop oils, and nutritional sprays. However, because of the large number of possible tank mixes, pre-test to assure that there is physical and non-phytotoxic compatibility of any proposed mixtures with MANA Diflubenzuron 80 WG.

**RESISTANCE MANAGEMENT**

When used as directed, MANA Diflubenzuron 80 WG provides control of a number of important insect pests. MANA Diflubenzuron 80 WG must be part of an IPM program that follows good management practices that include:

- Scouting regularly and use MANA Diflubenzuron 80 WG against early immature stages for best results
- Always follow the label rate and timing directions
- Use chemical alternatives such as oil and preserve beneficial arthropods as part of an IPM program
- Maintain good coverage of all leaf surfaces with adequate water volume
- Alternate treatments to classes of insecticides with different modes of action

**APPLICATION INSTRUCTIONS**

**Spray Volumes:** Use sufficient spray volume for thorough coverage of leaf surfaces (ground = 50 to 1,000 gallons per acre; aerial = 5 to 20 gallons per acre).

**RESTRICTIONS**

Do not apply more than 18.75 ounces of MANA Diflubenzuron 80 WG per acre per year. Do not apply more than 6.25 ounces per acre in any 90-day period. For full rate applications (6.25 ounces per acre), repeat sprays no closer than 90 days from last application. For 1/2 rate split applications (3.125 + 3.125 ounces per acre), repeat sprays no closer than 90 days after the second application of 3.125 ounces per acre. Do not apply within 21 days of harvest. Do not harvest cover crops for animal feed or graze livestock in treated groves.

**Ground Application:** Do not apply within 25 feet of bodies of water such as lakes, reservoirs, rivers, permanent streams, natural ponds, marshes, or estuaries. **In the State of Florida**, do not apply within 100 feet of estuarine/marine bodies of water. Spray last three rows windward of surface water using nozzles on one side only, with spray directed away from surface water. Avoid spray going over tops of trees by adjusting or turning off top nozzles. Shut off nozzles on the side away from the grove when spraying the outside row. Shut off nozzles when turning at ends of rows and passing tree gaps in rows.

**Aerial Application:** Do not apply within 150 feet of bodies of water such as lakes, reservoirs, rivers, permanent streams, natural ponds, marshes, or estuaries. **In the State of Florida**, do not apply within 1000 feet of estuarine/marine bodies of water.



Crops	Pests	Application Rate (oz./acre)	Directions for Use
Oranges, Grapefruit, Tangerine, Pummelos/ Pomelos and their hybrids	Asian Citrus Psyllid ( <i>Diaphorina Citri</i> )	6.25	<p>Apply MANA Diflubenzuron 80 WG at 6.25 ounces per acre (2 water soluble pouches) to immature citrus leaf flushes when psyllids are first observed in trees. The addition of a spray oil, such as FC435-66, enhances coverage and may enhance control of Asian citrus psyllid nymphs.</p> <p>MANA Diflubenzuron 80 WG will not kill adult stages of Asian citrus psyllid. MANA Diflubenzuron 80 WG has activity on immature forms.</p> <p><b>Split Application:</b> Spray 3.125 ounces per acre (1 water soluble pouch) when very early-feather leaf flush is present, or oviposition by ACP is expected or seen, or leaf distortion is evident. Apply the second application of MANA Diflubenzuron 80 WG at 3.125 ounces per acre as needed to protect new flushes of growth.</p>
	Citrus Rust Mite	6.25	<p>Apply MANA Diflubenzuron 80 WG at 6.25 ounces per acre (2 water soluble pouches) in sufficient water to ensure thorough coverage (50-1,000 gallons per acre by ground application; 5 to 20 gallons per acre by aerial application). MANA Diflubenzuron 80 WG has activity on eggs and nymphal stages of citrus rust mites. Adults that have passed all molting stages are not susceptible to MANA Diflubenzuron 80 WG. The full effect of MANA Diflubenzuron 80 WG may not be apparent for 3 to 10 days after application.</p>
	Lepidopterous Miners: Citrus Leafminer ( <i>Phyllocnistis citrella</i> )	6.25	<p>Apply MANA Diflubenzuron 80 WG at 6.25 ounces per acre (2 water soluble pouches) when oviposition begins on new growth flush. The addition of a spray oil, such as FC435-66, enhances coverage and may enhance control of citrus leafminers. MANA Diflubenzuron 80 WG will not kill adult stages of leafminers. MANA Diflubenzuron 80 WG has activity on eggs, larval, and pupal stages.</p> <p><b>Split Application:</b> Spray 3.125 ounces per acre (1 water soluble pouch) when leaf flush is present and the oldest leaf is approximately one-quarter expanded, or when oviposition by CLM is expected or seen, or leaf mining is evident. Apply the second application of MANA Diflubenzuron 80 WG at 3.125 ounces per acre as needed to protect new flushes of growth.</p>
	Lepidopterous Miners: Citrus Peelminer ( <i>Marmara spp.</i> )	6.25	<p>Apply MANA Diflubenzuron 80 WG at 6.25 ounces per acre (2 water soluble pouches) when oviposition begins on peel surface. The addition of a spray oil, such as FC435-66, enhances coverage and may enhance control of peelminers. MANA Diflubenzuron 80 WG prevents development of peelminer eggs laid on protected fruit tissues. Protection may last only a few weeks when new tissue is exposed on rapidly expanding fruit.</p>
	Citrus Root Weevil Complex	6.25	<p>Apply MANA Diflubenzuron 80 WG at 6.25 ounces per acre (2 water soluble pouches) to control citrus root weevil species, which include the West Indian sugar cane rootstock borer weevil (<i>Diaprepes abbreviatus</i>), the southern blue-green citrus root weevil (<i>Pachnaeus litus</i>), the blue-green citrus weevil (<i>Pachnaeus opalus</i>), the Fuller rose beetle (<i>Asynonychus godmani</i>), and the little leaf notcher (<i>Artipus floridanus</i>). Apply MANA Diflubenzuron 80 WG to newly expanded flush on citrus and/or when adult weevils are present.</p> <p>The addition of a spray oil, such as FC435-66, enhances coverage and penetration of MANA Diflubenzuron 80 WG into the adult weevils and eggs. Also, oil will deter attachment of weevil egg masses to leaf surfaces.</p> <p>MANA Diflubenzuron 80 WG will not kill adult weevils. The activity of MANA Diflubenzuron 80 WG is through ingestion or contact and will result in reduction of the reproductive potential of weevils, it prevents eggs from hatching, thus preventing larvae from entering soil and feeding on citrus tree roots. Also, the grubs from eggs laid on treated leaves are reduced in number.</p>



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Crops	Pests	Application Rate (oz./acre)	Directions for Use
	Katydids Grasshoppers	6.25	MANA Diflubenzuron 80 WG applied at 6.25 oz./A when katydids and/or grasshoppers are first observed can significantly reduce nymphal populations and egg hatch. It has direct activity on eggs and nymphs by preventing eggs from hatching and nymphs from molting. Adult grasshoppers and katydids that feed on or contact treated surfaces produce fewer eggs that hatch, reducing pest populations. The performance of MANA Diflubenzuron 80 WG is highly dependent upon the timeliness of its application as well as overall spray coverage. The addition of petroleum spray oil, such as FC435-66, enhances spray coverage and penetration of MANA Diflubenzuron 80 WG into katydid or grasshopper eggs, nymphs and adults, improving activity on each life stage.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a dry location.

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

**CONTAINER HANDLING:**

**Nonrefillable Container.** Do not reuse or refill this container. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke. Offer for recycling, if available.

#### LIMITATION OF WARRANTY AND LIABILITY

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES and LIMITATIONS OF LIABILITY.**

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks 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 Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.

MANA Diflubenzuron 80 WG (66222-xxx)(to EPA 09-23-11)rev3