This information is for promotional purposes only. Space considerations may require information to be omitted.
Always refer to the actual package for complete label verbiage. This product may not yet be available or approved for sale or use in your area.

RESTRICTED USE PESTICIDE

Toxic to Fish and Aquatic Organisms.

For retail sale to and use only by certified applicators or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTHRIN	GROUP	3A	INSECTICIDE

TALAK™ VICHI

Contains Bifenthrin, the active ingredient used in Talstar® Select.

For Commercial Non-Food Use on Indoor and Outdoor Ornamentals, Greenhouses, Nurseries, Turf on Golf Courses and Sod Farms.

ACTIVE INGREDIENT:	**(% by weight)**
Bifenthrin*	7.9%
OTHER INGREDIENTS:	92.1%
TOTAL	100.0%

Talak™ Vichi contains 2/3 lb. ai per gallon.
*Cis isomers 97% minimum, trans isomers 3% maximum.
EPA Reg. No.: 91234-480

SPECIMEN

KEEP OUT OF REACH OF CHILDREN

CAUTION

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

See inside label booklet for First Aid, Precautionary Statements, and Directions for Use.

FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at **1-844-685-9173** for emergency medical treatment information.

For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

Talak™ Vichi is not manufactured, or distributed by Environmental Science U.S. LLC, seller of Talstar® Select.

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Atticus, LLC
940 NW Cary Parkway, Suite 200
Cary, NC 27513

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers (other than mixers and loaders) must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride (PVC) ≥14 mils, or Viton ≥14 mils.
- Shoes plus socks

Mixers and Loaders must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride (PVC) ≥14 mils, or Viton ≥14 mils
- Shoes plus socks
- Protective eyewear

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 Recommendations

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and 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 and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops if bees are visiting the treatment area. **Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.**

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.

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

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 intervals. 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
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride (PVC) ≥14 mils, or Viton ≥14 mils
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.

Do not allow people or pets on treated surfaces until the spray has dried.

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GENERAL APPLICATION INSTRUCTIONS

For indoor and outdoor use.

Talak Vichi controls listed insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in greenhouses. Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity 365 days after application.

Spreader stickers are not necessary with **Talak Vichi**.

Talak Vichi can be tank-mixed with insect growth regulators, other pesticides and other aqueous carriers. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Physical compatibility may vary with different combinations of products, so prepare a small scale (pint or quart jar) test sample for any combination not tested previously. Use proper proportions in the small scale test to achieve the correct result.

Unless otherwise noted in the label instructions, use the procedure below for preparation of a new tank mix:

1. Add wettable powders to tank water.
2. Mix well
3. Add liquids and flowables
4. Mix well
5. Add emulsifiable concentrates
6. Mix well

Try reversing the order of addition or increasing the amount of water if the combination is not compatible using the above order. NOTE: After increasing the amount of water, if the mixture is found to be compatible, it is necessary to recalibrate the sprayer for a higher volume application. Do not allow mixture to stand overnight.

Maximum rates: Do not apply more than 0.2 lb. a.i./acre (40 fl. oz.) of **Talak Vichi** in a single application or per year for outdoor applications.

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USE RESTRICTIONS

- Spot treatments must not exceed two square feet in size (for example, 2 ft. by 1 ft. or 4 ft. by 0.5 ft.).
- Do not spray the product into fish pools, ponds, streams, or lakes. Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.
- Do not allow the product to enter any drain during or after application.
- Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment.
- Do not apply or irrigate to the point of runoff.
- Do not make applications during rain. Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours).
- Rainfall within 24 hours after application may cause unintended runoff of pesticide application.
- Do not apply when the wind speed is greater than 15 mph.
- Treat surfaces to ensure thorough coverage but avoid runoff.
- To treat insects harbored in voids and cracks-and-crevices, applications must be made in such a manner to limit dripping and avoid runoff onto untreated structural surfaces and plants.
- **For outdoor applications to commercial nurseries:**
  - o Do not apply when the wind speed is greater than 15 mph.
  - o Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
  - o For soil or foliar applications, do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

All outdoor spray applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

1. Applications to pervious surfaces such as soil, lawn, turf or other vegetation;
2. Perimeter band treatments of 7 feet wide or less from the base of a man-made structure to pervious surfaces (e.g., soil, mulch, or lawn);
3. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
4. Applications around potential exterior pest entry points into man-made structures such as doorways and windows, when limited to a band not to exceed one inch;
5. Applications to vertical surfaces (such as the side of a man-made structure) directly above impervious surfaces (e.g., driveways, sidewalks, etc.), up to 2 feet above ground level;
6. Applications to vertical surfaces directly above pervious surfaces, such as soil, lawn, turf, mulch or other vegetation) only if the pervious surface does not drain into ditches, storm drains, gutters, or surface waters.

BUFFER ZONES TO WATER BODIES

Ground Application:

- Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Ultra Low Volume (ULV) Aerial Application:

- Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Non-ULV Aerial Application:

- Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

VEGETATIVE FILTER STRIPS

Construct and maintain a vegetative filter strip, according to the width specified below, of grass or other permanent vegetation between the field edge and nearby down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing (name of pyrethroid) onto fields where a maintained vegetative filter strip of at least 25 feet exists between the field edge and where a down gradient aquatic habitat exists. This minimum required width of 25 feet may be reduced or removed under the following conditions:

- For Western irrigated agriculture, a maintained vegetative filter strip of at least 10 feet wide is required. Western irrigated agriculture is defined as irrigated farmland in the following states: WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX (west of I-35).
  - o For Western irrigated agriculture, if a sediment control basin is present, a vegetative filter strip is not required.
- In all other areas, a vegetative filter strip with a minimum width of 25 feet is required, unless the following conditions are met. The vegetative filter strip requirement may be reduced from 25 feet to 15 feet if at least one of the following applies:
  - o The area of application is considered prime farmland (as defined in 7 CFR § 657.5).
  - o Conservation tillage is being implemented on the area of application. Conservation tillage is defined as any system that leaves at least 30% of the soil surface covered by residue after planting. Conservation tillage practices can include mulch-till, no-till, or strip-till.
  - o A functional terrace system is maintained on the area of application.
  - o Water and sediment control basins for the area of application are functional and maintained.
  - o The area of application is less than or equal to 10 acres.

For further guidance on vegetated filter strips, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. https://www.regulations.gov/document?D=EPA-HQ-OPP2008-0331-0175

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, **Talak Vichi** contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to **Talak Vichi** and other Group 3A insecticides. The resistant individuals may dominate the insect/mite population if this group of insecticides/acaricides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide/acaricide resistance, take the following steps:

- Rotate the use of **Talak Vichi** or other Group 3A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides/acaricides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - o Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - o Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - o When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - o Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.

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- The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.

- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Atticus, LLC at 984-465-4800.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the windspeed is 10 miles per hour or less, applicators must use 1/2 swath displacement upwind at the downwind edge of the field. When the windspeed is between 11 - 15 miles per hour, applicators must use 3/4 swath displacement upwind at the downwind edge of the field.
- Do not apply during temperature inversions.

Airblast Applications

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 15 mph at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- Do not apply during temperature inversions.

Ground Boom Applications

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S572).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

NON-TARGET ORGANISM ADVISORY STATEMENT

This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and reduce pesticide risk to these organisms.

Handheld Technology Applications:

Take precautions to minimize spray drift.

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Talak Vichi Dilution Chart

Application Volume (Gallons/A)	Application Rate (Lb. a.i./A)	Fluid Ounces* of Talak Vichi Diluted to these Volumes of Finished Spray			
		1 Gallon	25 Gallons	50 Gallons	100 Gallons
50	0.025	0.1	2.5	5.0	10.0
50	0.05	0.2	5.0	10.0	20.0
50	0.1	0.4	10.0	20.0	40.0
50	0.2	0.8	20.0	40.0	80.0
100	0.025	0.05	1.25	2.5	5.0
100	0.05	0.1	2.5	5.0	10.0
100	0.1	0.2	5.0	10.0	20.0
100	0.2	0.4	10.0	20.0	40.0
150	0.025	0.03	0.83	1.67	3.3
150	0.05	0.07	1.67	3.33	6.7
150	0.1	0.133	3.33	6.67	13.3
150	0.2	0.266	6.67	13.33	26.7
200	0.025	0.025	0.63	1.25	2.5
200	0.05	0.05	1.25	2.5	5.0
200	0.1	0.1	2.5	5.0	10.0
200	0.2	0.2	5.0	10.0	20.0
250	0.025	-	0.5	1.0	2.0
250	0.05	-	1.0	2.0	4.0
250	0.1	-	2.0	4.0	8.0
250	0.2	-	4.0	8.0	16.0
300	0.025	-	0.42	0.83	1.7
300	0.05	-	0.83	1.67	3.3
300	0.1	-	1.67	3.33	6.7
300	0.2	-	3.33	6.67	13.3

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*To convert to milliliters, multiply by 29.57
1 fl. oz. = 29.57 ml = 2 tablespoons = 6 teaspoons
Do not use household utensils to measure **Talak Vichi**.

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: Use the following formula to determine the percent active ingredient that is in the spray tank after mixing **Talak Vichi**:

$$\frac{(7.9)\,(\text{Fl. Oz. of } \textbf{Talak Vichi} \text{ added to tank})}{(\text{Gallons of finished spray mix})\,(128)} = \text{Percent Active Ingredient of spray mix}$$

ORNAMENTALS

Ornamentals in Greenhouses, Lath Houses, Shade Houses and Outdoor Nurseries, including Non-Bearing Fruit and Nut Trees

Apply 0.025 to 0.2 lb. a.i./A (5.0 to 40.0 fl. oz.) of **Talak Vichi**. Provided the maximum label rate (0.2 lb. a.i./A or 40 fl. oz.) is not exceeded, **Talak Vichi** can be diluted and applied in various volumes of water. It may also be applied through low volume application equipment by dilution with water or other carriers Refer to **Talak Vichi Dilution Chart** for specific instructions.

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ORNAMENTAL APPLICATION RATES

Under typical conditions, the application rates in the table below will provide control of the pests listed. However, at the discretion of the applicator, **Talak Vichi** may be applied at up to 0.2 lb. a.i./A (40 fl. oz.) to control the pests listed in this table.

PEST		APPLICATION RATE TALAK VICHI	
		Lb. a.i./A	Fl. oz./A
Aphids Bagworms[1] Cutworms Elm Leaf Beetles Fall Webworms	Lace Bugs Leaf Feeding Caterpillars Plant Bugs (Including *Lygus* spp.) Tent Caterpillars	0.025 - 0.05	5.0 - 10.0
Beet Armyworm Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers)[2] Centipedes Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Gypsy Moth Caterpillars	Leafhoppers Leafrollers Mealybugs Millipedes Mites Orchid Weevil Pillbugs Pine Needle Scales (Crawlers)[2] San Jose Scales (Crawlers)[2] Sowbugs Spider Mites Spiders Thrips Tip Moths Twig Borers[2] Weevils Whiteflies	0.05 - 0.1	10.0 - 20.0
Ants Imported Fire Ants* Japanese Beetle (Adult) Leafminers	Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Stink Bugs**	0.1 - 0.2	20.0 - 40.0

Treat a small number of plants, and observe for one week to determine if certain cultivars are sensitive to the final spray solution.

[1] **Bagworms:** For optimum control treat when larvae have started to hatch and are young, directing spray to contact as many larvae as possible.

[2] **Scale Crawlers and Twig Borers:** Apply to plant foliage; also treat trunks, stems, and twigs.

*For foraging ants

**Not Registered for Use by California

Restrictions:

- Apply with ground equipment only.
- Do not apply when wind direction favors downwind drift towards nearby water bodies.
- Do not apply when wind velocity exceeds 10 mph.
- Avoid application when wind gusts approach 10 mph.
- Do not apply when a temperature inversion exists.
- Apply using the largest nozzle size compatible with adequate coverage.
- Do not apply if rain is expected within 12 hours (or whatever time is necessary for the spray to dry).
- Do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Do not apply within 150 feet of aquatic areas when treating tall trees (>15 feet) from the ground with high pressure sprays or during any application with air assisted equipment (mist blower).

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IMPORTED FIRE ANT QUARANTINE TREATMENT

Talak Vichi against imported fire ants (IFA) in Potting Media (including balled and containerized nursery-grown ornamental trees, shrubs, plants, flowers, conifers, bushes, Christmas trees, and non-bearing fruit and nut-trees). **Talak Vichi** is approved and can be used in accordance with the USDA Imported Fire Ant Quarantine Program. **Talak Vichi** may be applied either as a high-volume drench treatment, soil incorporated, topical application, or as a broadcast application on grass sod.

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Soil Incorporation: By sprinkling or spraying it onto the media, incorporate the appropriate volume of **Talak Vichi** (see table below) per cubic yard of potting media by diluting it in water (typically 1 quart to 1 gallon per cubic yard of media). The applications are based on the dry bulk density of the potting media. This application will provide a 6 month certification period when used in accordance with USDA guidelines.

Rates for Soil Incorporation of Talak Vichi to Control Imported Fire Ants (IFA) in Potting Media

Potting Media Bulk Density (lbs. cubic yard)	Fl. oz. of Talak Vichi in one cubic yard
200	1.9
400	3.8
600	5.7
800	7.6
1000	9.5
1200	11.4
1400	13.3

Use proportional amounts of **Talak Vichi** for potting media with bulk densities not listed.

Topical Application: Mix **Talak Vichi** in 1000 ounces of water based on container size and bulk density of the potting media (see table below). Use one (1) ounce of the mixture, evenly distributing over the potting media surface of each container. After treatment, irrigate all treated containers with 1.5 inches of water. This application will provide a 6 month certification period when used in accordance with USDA guidelines.

Application Rate for Topical Drench with Talak Vichi to Control IFA in Potting Media

Potting Media Bulk Density (lbs. cubic yard)	Fl. oz. of Talak Vichi per 1000 ounces of water	
	3 Qts. Container	4 Qts. Container
200	3.6	5.2
400	7.2	10.4
600	10.8	15.6
800	14.4	20.8
1000	18.0	26.0
1200	21.6	31.2
1400	25.2	36.4

Use proportional amounts of **Talak Vichi** for potting media with bulk densities not listed.

High-Volume Drench: Mix the appropriate amount based on the bulk density of the media in 100 gallons of water (see table below). Use **Talak Vichi** as a high-volume treatment, drenching each of the containers to the point of saturation. The amount of mix used for each plant is normally 1/5 volume of the container. This application will provide a 6-month certification period when used in accordance with USDA guidelines.

Application Rate for High-Volume Drench with Talak Vichi to Control Imported Fire Ants (IFA) in Potting Media.

Potting Media Bulk Density (lbs. cubic yard)	Fl. oz. of Talak Vichi in 100 Gallons
200	2.4
400	4.8
600	7.2
800	9.6
1000	12.0
1200	14.4
1400	16.8

Use proportional amounts of **Talak Vichi** for potting media with bulk densities not listed.

Treatment of Grass Sod: Apply **Talak Vichi** as a broadcast treatment. Use higher volumes up to 10 gallons of carrier per 1000 square feet to get uniform coverage when treating dense grass foliage. Make two applications of 1.0 fl. oz. per 1000 sq. ft. (0.2 lb. a.i./A) seven days apart. This application will provide control within four weeks followed by 16 weeks of certification.

Imported Fire Ant and Japanese Beetle Quarantine Treatment for Ornamentals (Soil Dip Treatment of Containerized or Balled and Burlapped Nursery Stock)

Use **Talak Vichi** to treat containerized (potted) or balled and burlapped nursery stock to control soil insects.

Ornamentals (Soil Treatment of Containerized or Balled and Burlapped Nursery Stock)	
Pest	**Amount of Talak Vichi (fl. oz. per 100 gallons)**
Fire Ants[1]	22
Japanese Beetle Grubs[2]	22 to 65

Use Directions:

Completely submerge the container with drain holes or root ball stabilized by burlap in a tank containing diluted **Talak Vichi**. Do not remove burlap wrap or containers with drain holes prior to submerging. Keep the container or root ball submerged until complete soil saturation has occurred, normally about 30 seconds.

Note: The professional user assumes responsibility for determining if **Talak Vichi** is safe to treat plants under commercial growing conditions.

Precautions:

During all operations (submerging, drenching, injecting), wear chemical-resistant apron in addition to other PPE listed for applicators and other handlers. Application should be made in a well-ventilated area. Environmental factors significantly affect phytotoxicity. **Talak Vichi** has been tested on numerous ornamental plants without causing serious phytotoxicity. However, because of the numerous varieties grown, it is recommended that a small group of plants be treated at the recommended rate under the anticipated growing conditions and observed for phytotoxic symptoms for at least 7 days, before a large number of plants are treated.

[1] For Federal Imported Fire Ant Quarantine, plants must be retreated if not sold within 180 days.

[2] Refer to U.S. Domestic Japanese Beetle Harmonization Plan (Dip Treatment - B&B and Container Plants) (http://www.nationalplantboard.org/policy/html) for the appropriate treatment rate as well as additional dip treatment restrictions on plant size, immersion duration, soil temperature, soil type, and soil moisture. Treatment should be applied between September 15 and May 1.

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LARVAL CONTROL IN POTTING MEDIA OF CONTAINERIZED PLANTS

Preventative Treatment			
Pest	**Application Type**	**Treatment with Talak Vichi**	**Application Directions**
Black Vine Weevil Larvae	Topical Drench	Use at the rate of 10 to 40 fl. oz. (0.05 to 0.2 lb. a.i.) per 100 gallons and apply as a drench at the rate of 4 to 8 fl. oz. of finished spray per 6 inch (diameter) container. Treat the media to the point of saturation, which generally requires 1/5 the volume of the container.	10 fl. oz. of **Talak Vichi** per 100 gallons and applying 8 fl. oz. of finished spray per 6 inch (diameter) container will provide black vine weevil larval control for one growing season when the application is made in the spring. 20 to 40 fl. oz. of **Talak Vichi** per 100 gallons and applying 8 fl. oz. of finished spray per 6 inch (diameter) container will provide control for two growing seasons when the application is made in the spring. Use a proportional volume of finished spray for containers less than or greater than 6 inches in diameter.
White Grubs Japanese Beetle Oriental Beetle European Chafer	Topical Drench	Use at the rate of 40 to 80 fl. oz. (0.2 to 0.4 lb. a.i.) per 100 gallons and apply as a drench at the rate of 4 to 8 fl. oz. of finished spray per 6 inch (diameter) container. Treat the media to the point of saturation, which generally requires 1/5 the volume of the container.	Use the higher labeled application rate for a longer period of control. Use a proportional volume of finished spray for containers less than or greater than 6 inches in diameter.
Black Vine Weevil Larvae White Grub Larvae	Media Incorporation	Incorporate the appropriate volume of **Talak Vichi** (see table below) per cubic yard of potting media by diluting it in water (typically 1 quart to 1 gallon per cubic yard of media) and sprinkling or spraying it onto the media.	Use the higher labeled application rates for longer periods of control.
Fungus Gnat Larvae	Topical Drench	Use at the rate of 20 to 40 fl. oz. (0.1 to 0.2 lb. a.i.) per 100 gallons and apply as a drench at the rate of 4 to 8 fl. oz. of finished spray per 6 inch (diameter) container. Treat the media to the point of saturation, which generally requires 1/5 the volume of the container.	Use a proportional volume of finished spray for containers less than or greater than 6 inches in diameter.
Root Weevil Larvae	Bare-root treatment	Use at the rate of 1 gallon in 100 gallons of water and treat the bare roots of plants that are being transplanted into the field. Either dip the roots into the insecticide solution for ten seconds or spray the insecticide solution onto the roots.	

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Potting Media Bulk Density (lbs. cubic yard)	**Fl. oz. of Talak Vichi in one cubic yard**			
	10 PPM	**15 PPM**	**20 PPM**	**25 PPM**
200	0.4	0.6	0.8	1.0
300	0.6	0.9	1.2	1.5
400	0.8	1.2	1.6	2.0
500	1.0	1.5	2.0	2.5
600	1.2	1.8	2.4	3.0
700	1.4	2.1	2.8	3.5
800	1.6	2.4	3.2	4.0
900	1.8	2.7	3.6	4.5
1000	2.0	3.0	4.0	5.0

The application rates listed above are based on the dry bulk density of the potting media. Use proportional volumes of **Talak Vichi** for potting media with dry bulk densities that are not listed above.

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Curative Treatment			
Pest	**Application Type**	**Treatment with Talak Vichi**	**Application Directions**
Black Vine Weevil Larvae	Topical Drench	Use at the rate of 10 to 40 fl. oz. (0.05 to 0.2 lb. a.i.) per 100 gallons and apply as a drench at the rate of 8 to 16 fl. oz. of finished spray per 6 inch (diameter) container. Treat the media to the point of saturation, which generally requires 1/5 the volume of the container.	10 fl. oz. of **Talak Vichi** per 100 gallons and applying 8 fl. oz. of finished spray per 6 inch (diameter) container will provide black vine weevil larval control for one growing season when the application is made in the spring. 20 to 40 fl. oz. of **Talak Vichi** per 100 gallons and applying 8 fl. oz. of finished spray per 6 inch (diameter) container will provide control for two growing seasons when the application is made in the spring. Use a proportional volume of finished spray for containers less than or greater than 6 inches in diameter.
Diaprepes Weevil Larvae	Topical Drench	Use at the rate of 10 to 40 fl. oz. (0.05 to 0.2 lb. a.i.) per 100 gallons and apply as a drench at the rate of 8 to 16 fl. oz. of finished spray per 6" (diameter) container. Treat the media to the point of saturation, which generally requires 1/5 the volume of the container.	Use the higher labeled application rate for a longer period of control. Use a proportional volume of finished spray for containers less than or greater than 6 inches in diameter.
Fungus Gnat Larvae	Topical Drench	To control fungus gnat larvae infesting containerized plants, dilute **Talak Vichi** at the rate of 10 to 40 fl. oz. (0.05 to 0.2 lb. a.i.) per 100 gallons and apply as a drench at the rate of 8 to 16 fl. oz. of finished spray per 6" (diameter) container. Treat the media to the point of saturation, which generally requires 1/5 the volume of the container.	Use the higher labeled application rate for a longer period of control. Use a proportional volume of finished spray for containers less than or greater than 6 inches in diameter.

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TURF (GOLF COURSES AND SOD FARMS)

Do not use this product on Golf Courses and Sod Farms in Nassau County or Suffolk County, New York.

In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).

In New York State, make a single repeat application of Talak Vichi if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

Talak Vichi may be applied as a surface or sub-surface treatment. To get uniform coverage when treating dense and/or long turf foliage use application volumes of up to 10 gallons per 1000 sq. feet.

For low volume applications (less than 2 gallons/1000 square feet): Irrigate the treated area with at least 0.25 inches of water immediately following treatment to ensure control of sub-surface pests such as, but not limited to, mole crickets.

APPLICATION RATES

Under typical conditions, the application rates listed in the table below will provide control of the pests that are listed. During periods of high pest pressure or for maximum residual control, **Talak Vichi** can be applied at up to 0.1 lb. a.i./A (20 fl. oz.) or 0.2 lb. a.i./A (40 fl. oz.) for ants, imported fire ants and mole crickets.

PESTS	RATE		APPLICATION INSTRUCTIONS
	FL. OZ./ 1000 SQ. FT.	Lb. a.i./A	
Armyworms Cutworms Sod Webworm	0.25	0.05 (10 fl. oz.)	**Armyworms, Cutworms and Sod Webworms:** Postpone irrigation or mowing for 24 hours following application to obtain the best possible control. Higher labeled treatment rates (up to 0.1 lb. a.i./A or 20 fl. oz.) of **Talak Vichi** may be necessary if high pest pressure exists and if the turf area is maintained at a height taller than 1 inch.

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PESTS	RATE		APPLICATION INSTRUCTIONS
	FL. OZ./ 1000 SQ. FT.	Lb. a.i./A	
Annual Bluegrass Weevil *(Hyperodes)* (Adult) Ants Billbugs (Adult) Black Turfgrass Ataenius (Adult) Centipedes Chinch Bugs Crickets Earwigs Fleas (Adult) Grasshoppers Leafhoppers Mealybugs Millipedes Mites Mole Cricket (Adult) Mole Cricket (Nymph) Pillbugs Sowbugs	0.25 - 0.50	0.05 - 0.1 (10 - 20 fl. oz.)	**Annual Bluegrass Weevil *(Hyperodes)* adults:** Time treatment of this species as they travel into grass areas and away from their overwintering sites. Travel usually begins when *Forsythia* is in full bloom and ends when *Cornus florida* (flowering dogwood) is in full bloom. For additional detailed information regarding treatment timing, check with your State Cooperative Extension Service. **Billbug adults:** Make treatments of adult billbugs when they are first noticed in April and May. To optimize treatment timing, degree day models have been developed. For detailed information particular to your region, check with your State Cooperative Extension Service. Spring treatments for billbug adults will also offer control of over-wintered chinch bugs in temperate climates. **Black Turfgrass Ataenius adults:** In order to control the 1st and 2nd generation of black turfgrass ataenius adults, respectively, treatments should take place in May and July. Time the May treatment to match with the full bloom stage of Vanhouttei spiraea *(Spiraea vanhouttei)* and horse chestnut *(Aesculus hippocastanum)*. Time the July treatment to match with the blooming Rose of Sharon *(Hibiscus syriacus)*. **Chinch Bugs:** Mostly found in the thatch layer, chinch bugs infest the base of turf plants. In order to optimize the penetration of the insecticide to location of the chinch bugs, irrigation of the turf prior to treatment may be necessary. If a long mowing height is being maintained or if the thatch layer is excessive, use higher volume treatments. It may be necessary to use higher labeled application rates (up to 0.1 lb. a.i./A or 20 fl. oz. of **Talak Vichi**) to control populations made up of both adults and nymphs in mid-summer. **Mites:** Apply **Talak Vichi** in combination with a labeled rate of a surfactant to achieve optimal control of eriophyid mites. A second application may be needed 5 to 7 days after the first to ensure optimal control. **Mole Cricket adults:** Because preferred turf areas are subject to constant invasion during the early spring by this very active stage, it is difficult to attain suitable control of adult mole crickets. Make applications as late in the day as possible and water in with up to 0.5 inches of water immediately following treatment. To bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized, it is imperative to irrigate prior to application if the soil is not moist. To obtain optimum control of subsequent nymph populations (see below), turf areas that receive pressure from adult mole crickets should be treated at peak egg hatch. **Mole Cricket nymphs:** Treat those turf areas that are hit with intense adult mole cricket pressure in the spring right before peak egg hatch. Young nymphs are more vulnerable to insecticides at this time because they are close to the soil surface where the insecticide is most concentrated therefore, the greatest amount of control is reached. In order to sustain adequate control of larger, more damaging, nymphs later in the year, it may be necessary to use higher labeled application rates more often. It is ideal to treat the areas as late in the day as possible and water immediately after treatment with up to 0.5 inches of water. To get mole crickets nearer to the soil surface where there will be maximum contact, it is necessary to irrigate prior to application if the soil is not moist.

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PESTS	RATE		APPLICATION INSTRUCTIONS
	FL. OZ./ 1000 SQ. FT.	Lb. a.i./A	
Crane Flies (Larvae)* Fleas (Larvae) Imported Fire Ants Japanese Beetle (Adult) Ticks	0.50	0.10 (20 fl. oz.)	***Crane Flies:** Treatments can be made to control early to mid-season larvae (approximately August - February) as they feed on plant crowns. Treatments made to late-season larvae (approximately March, April) may only provide suppression. **Fleas larvae:** Immature fleas mature in shaded areas accessible to pets or other animals. When treating these areas use a higher volume treatment so that the insecticide penetrates into the soil. Note: if the lawn area is being treated with **Talak Vichi** at 0.05 lb. a.i./A (10 fl. oz.) for adult flea control, then the larval application rate can be achieved by doubling the application volume. **Ticks:** Make application to the entire area where contact with ticks may occur. Do not make spot treatments. When applying to areas with heavy leaf litter or dense ground cover use higher spray volumes. To attain and/or sustain control in times of high pest pressure, retreatments may be necessary; retreat only if signs of continued or renewed tick activity are present. Do not make repeat treatments more than once per 7 days. **Deer ticks *(Ixodes* sp.)** have a four-stage life cycle spanning 2 years. Treat in late fall and/or early spring to both larval and nymphal stages present in leaf litter and the soil, and adults living in the grass and low-lying vegetation above ground. **American dog ticks** invade suburban settings in areas where residences and dwellings are constructed on former fields or wooded areas. These pests normally gather by paths or roadways where they are likely to find a host. To control tick larvae, nymphs and adults, treatments should take place, as needed, from mid spring to early fall.
Ants[1] Imported Fire Ants[1,2] Mole Crickets[1] Stink bugs*	1.0	0.20 (40 fl. oz.)	[1] A single application of 0.2 lb. a.i./acre (40 fl. oz.) of **Talak Vichi** may be applied once per year for larger infestations of ants, imported fire ants, and mole crickets. [2] **Imported Fire Ants:** The best control will be achieved by using broadcast treatments in combination with mound drenches. This will control present colonies along with foraging workers and newly mated fly-in queens. It is critical either to use high volume treatments or to irrigate prior to application if the soil is dry. Apply 0.2 lb. a.i./A (40 fl. oz.) of **Talak Vichi** when making broadcast treatments. For mound drenches, dilute 1 teaspoon of **Talak Vichi** per gallon of water and use 1 to 2 gallons of finished dilution using sufficient force to penetrate the top and allow dilution to flood ant channels. Treat a four-foot diameter around each ant mound. Treatment should take place in cool weather (65 - 80°F) or in the early morning or late evening hours in order to achieve the greatest results. Note: A spray rig that is calibrated to apply 0.2 lb. a.i./A (40 fl. oz.) of **Talak Vichi** in 5 gallons per 1000 square feet contains the approximate dilution (1 teaspoon per gallon) that is required for fire ant mound drenches in the spray tank.

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Restrictions:

- Apply with ground application equipment only (and apply with nozzles not more than two feet above the turf).
- Do not apply when wind conditions favor downwind drift to nearby water bodies.
- Do not apply when wind velocity exceeds 10 mph.
- Avoid application when wind gusts approach 10 mph.
- Do not apply when a temperature inversion exists.
- Apply using nozzles that provide the largest droplet size compatible with sufficient coverage.
- If rain is expected within 12 hours (or whatever time is necessary for the spray to dry), do not apply for surface-feeding pests.
- Do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.
- Do not apply when turf areas are water-logged or soil is saturated with water (i.e. will not accept irrigation).

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STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

In Case of Spill: Avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: Dike surrounding area or absorb with sand, cat litter or commercial clay. Place damaged package in a holding container. Identify contents.

CONTAINER HANDLING:

For plastic containers ≤ 5 gallons: Nonrefillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

For plastic containers > 5 gallons: Nonrefillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Recap and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures allowed by state and local authorities.

LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following 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. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. 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, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

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