



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

EPA Reg. Number:

5481-682

Date of Issuance:

12/8/22

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

WISDOM® PRO L&H

Name and Address of Registrant (include ZIP Code):

Niamh McMahon  
Regulatory Product Manager  
AMVAC Chemical Corporation  
4695 MacArthur Ct., Ste. 1200  
Newport Beach, CA 92660

**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 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 conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Jacquelyn Herrick, Product Manager 03  
Invertebrate & Vertebrate Branch 1, Registration Division  
(7505P), Office of Pesticide Programs

Date:

12/8/22

EPA Form 8570-6

2. You are required to comply with the data requirements described in the DCI identified below:
  - a. Bifenthrin GDCI-128825-902
  - b. Bifenthrin GDCI-097805-1100
  - c. Bifenthrin GDCI-128825-1114
  - d. Bifenthrin GDCI-128825-1159

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>

3. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.
4. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 5481-682.”
5. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 02/23/2021
- Alternate CSF 1 dated 03/29/2021
- Alternate CSF 2 dated 02/23/2021

If you have any questions, you may contact Robert Mitchell at 202-566-2842 or via email at [mitchell.robert@epa.gov](mailto:mitchell.robert@epa.gov).

# WISDOM<sup>®</sup> PRO L&H

To control pests indoors and outdoors on residential, institutional, public, commercial, and industrial buildings, and lawns, ornamentals, parks, recreational areas and athletic fields.

For both Indoor and Outdoor Use

**ACTIVE INGREDIENT:**

Bifenthrin* .....	7.9%
<b>OTHER INGREDIENTS</b> .....	<u>92.1%</u>
<b>TOTAL</b> .....	100.0%

\*Cis isomers 97% minimum, trans isomers 3% maximum.

Wisdom Pro L&H contains 2/3 pound active ingredient per gallon.

## KEEP OUT OF REACH OF CHILDREN CAUTION

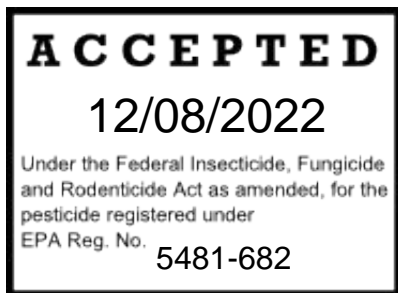
FIRST AID	
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further 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 water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 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 for treatment advice.</li> </ul>
EMERGENCY INFORMATION	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. <b>FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY:</b> For Medical Emergencies, phone:.....1-888-681-4261 For Transportation Emergencies, including spill, leak or fire, phone: CHEMTREC <sup>®</sup> .....1-800-424-9300 For Product Use Information phone: AMVAC <sup>®</sup> .....1-888-462-6822	
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.	

SEE SIDE/BACK PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE.

EPA Reg. No. 5481-###

EPA Est. No.: \_\_\_\_\_

Net Contents: \_\_\_\_\_





[Manufactured for]  
AMVAC Chemical Corporation  
4695 MacArthur Court, Suite 1200,  
Newport Beach, CA 92660 USA  
1-888-462-6822

{optional marketing claims-

Mixes easily with water

Controls listed pests indoors, in interiorscapes and outdoors on ornamentals and lawns in landscaped areas around (residential,) (institutional,) (public,) (commercial) (and industrial) buildings (as well as on parks, recreational areas and athletic fields)

Controls (ants,) (bagworms,) (caterpillars,) (chinch bugs,) (fire ants,) (fleas,) (Japanese Beetle Adults,) (mosquitoes,) (perimeter pests,) (stink bugs,) (spiders,) (ticks) (and more than 100 listed pests).

Controls more than 100 listed pests.

Flea & Tick killer.

Controls ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever)

Controls (deer ticks) (blacklegged ticks) (Ixodes scapularis)

Spider killer

Controls black widow spiders

One quart treats approximately  $\frac{3}{4}$  of an acre (when applied at the maximum application rate)

One gallon treats approximately 3 acres (when applied at the maximum application rate)}

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## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed, inhaled, or absorbed through skin. 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 contaminated clothing and wash clothing before reuse.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

- All pesticide handlers (mixers, loaders and applicators) must wear:
- Long-sleeved shirt and long pants.
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber  $\geq$  14 mils, Nitrile Rubber  $\geq$  14 mils, Neoprene Rubber  $\geq$  14 mils, Polyvinyl Chloride (PVC)  $\geq$  14 mils, or Viton<sup>®</sup>  $\geq$  14 mils.
- Shoes plus socks.

After the product is diluted in accordance with label directions for use all handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks.
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber  $\geq$  14 mils, Nitrile Rubber  $\geq$  14 mils, Neoprene Rubber  $\geq$  14 mils, Polyvinyl Chloride (PVC)  $\geq$  14 mils, or Viton<sup>®</sup>  $\geq$  14 mils.

Follow the 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 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 extremely toxic to fish and aquatic invertebrates. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds. To protect the environment, do not allow the pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

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 it to drift to blooming crops or weeds 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.**

## PHYSICAL AND CHEMICAL HAZARDS

Do not apply water-based dilutions of Wisdom Pro L&H to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of the possible shock hazard.

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## DIRECTIONS FOR USE

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

For both Indoor and Outdoor Use

For soil or foliar applications, do not apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

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 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 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 allow to enter indoor or outdoor drains unless labeled for drain treatments. Follow proper disposal procedures on this label. *No permita la entrada a desagües internos o externos a menos que el etiquetado indique que está permitido el uso del producto para tratamiento de desagües. Siga las indicaciones del etiquetado para el desecho apropiado del producto.*



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## INFORMATION ON THE USE OF THIS PRODUCT

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Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended only for aesthetic purposes or climatic modifications and being grown in interior landscapes, ornamental gardens or parks, or lawns and grounds.

## MIXING INSTRUCTIONS

Wisdom Pro L&H formulation mixes readily with water and other aqueous carriers, and controls listed insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in interiorscapes including hotels, shopping malls, commercial buildings, and outdoor landscapes, such as around residential dwellings, parks, institutional buildings, recreational

areas, athletic fields and home lawns. Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity within 365 days of application.

Wisdom Pro L&H may be tank-mixed with other pesticides, including insect growth regulators. 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. The physical compatibility of Wisdom Pro L&H may vary with different sources of pesticide products, and local cultural practices. Any tank mixture which has not been previously tested should be prepared on a small scale (pint or quart jar), using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture.

The following procedure is recommended for preparation of a new tank mix, unless specified otherwise in label directions:

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

If a mixture is found to be incompatible following this order of addition, try reversing the order of addition, or increase the volume of water. **Note:** If the tank-mixture is found to be compatible after increasing the amount of water, then the sprayer will need to be recalibrated for a higher volume application. Do not allow tank mix to stand overnight.

## Resistance Management

For resistance management, Wisdom Pro L&H contains bifenthrin, a Group 3 insecticide. Any insect population may contain individuals naturally resistant to Wisdom Pro L&H and other Group 3 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same locations. Appropriate resistance management strategies should be followed.

To delay insecticide resistance, take one or more of the following steps:

- Rotate the use of Wisdom Pro L&H or other Group 3 insecticides within the year with different groups that control the same pests.
- Use tank mixtures with insecticides 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 the mixture. In addition, consider the following recommendations from the Insect resistance Action Committee (IRAC):
  - 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.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pests.
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greater 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 insect management program for insecticide use that includes scouting, uses historical information related to pesticide use 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 pest control advisor for any additional pesticide resistance-management and/or IPM recommendations for specific site and pest problems in your area.

For further information or to report suspected resistance contact AMVAC at (1-888-462-6822). You can also contact your pesticide distributor or university extension specialist to report resistance.

### LAWN APPLICATION

**Lawn:** Apply Wisdom Pro L&H as a broadcast treatment. Use application volumes of up to 10 gallons per 1,000 square feet to get uniform coverage when treating dense grass foliage. Do not apply when the wind speed is greater than 15 mph.

For low volume applications, less than 2 gallons /1,000 square feet, immediate irrigation of treated area with at least 0.25 inch of water following application to ensure efficacy of sub-surface pests including Mole Crickets.

### LAWN APPLICATION RATES

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, Wisdom Pro L&H may be applied at up to the maximum single application rate of 1 fl. oz. per 1,000 square feet to control each of the pests listed in this Table. The higher application rates should be used when maximum residual control is desired.

Pest	Application Rate Wisdom Pro L&H	Comments
Armyworms Cutworms Sod Webworm	0.18 - 0.25 fl. oz. per 1,000 sq. ft.  (7.84 – 10.89 fl. oz./A; 0.04 – 0.057 lbs ai/A)	To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (up to 1 fl. oz. per 1,000 square feet) may be required during periods of high pest pressure.
Banks Grass Mite Mites		To ensure optimal control of eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application, five to seven days after the first, may be necessary to achieve acceptable control.
Billbugs (Adult)	0.25 - 0.50 fl. oz. per 1,000 sq. ft.	Apply when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications targeting billbug adults will also provide control of over-wintered chinch bugs.
Black Turfgrass Ataenius (Adult)	(10.89 -21.78 fl. oz. /A; 0.057 – 0.113 lbs ai/A)	Apply during May and July to control the first and second generation of black turfgrass ataenius adults, respectively. Time the May application to coincide with the full bloom stage of Vanhoutte spiraea ( <i>Spiraea vanhouttel</i> ) and horse chestnut ( <i>Aesculus hippocastanum</i> ). Time the July application to coincide with the blooming of Rose of Sharon ( <i>Hibiscus syriacus</i> ).
Chinch Bugs		Chinch bugs infest the base of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch bugs can be one of the most difficult pests to control in grasses and the higher

		application rates (up to 1 fl. oz. per 1,000 square feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.
Centipedes Crickets Earwigs Fleas (adult) Grasshoppers Leafhoppers Mealybugs Millipedes Pillbugs Sowbugs		None
Ants Japanese Beetle (Adult)		None
Crane Fly larvae		Apply product to target early- to mid-stage larvae. Applications targeting late-stage larvae may only provide suppression. Two species of crane flies damage turfgrass. <i>Tipula paludosa</i> has one generation per year and adults emerge in late summer. Early- to mid-stage larvae of this species are present from late summer through mid-winter. Late-stage larvae, which are more difficult to control, are present from mid-winter through spring. <i>T. oleracea</i> has two generations per year. The timing of one of its generations coincides with that of <i>T. paludosa</i> . Adults of <i>T. oleracea</i> also emerge in the spring and produce a summer generation of larvae.
Fleas (Larvae)	0.50 - 1.0 fl. oz. per 1,000 sq. ft.  (21.78 – 43.56 fl. oz./A; 0.113-0.227 lbs ai/A)	Flea larvae develop in the soil of shaded areas that are accessible to pets or other animals. Use a higher volume application when treating these areas to ensure penetration of the insecticide into the soil. <b>Note:</b> If the lawn area is being treated with Wisdom Pro L&H at 0.25 fl. oz. per 1,000 square feet for adult flea control, then the larval application rate may be achieved by increasing the application volume two- to four-fold.
Imported Fire Ants		Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. For broadcast treatments apply 1 fl. oz. per 1,000 square feet. Treat mounds by diluting 1 teaspoon of Wisdom Pro L&H per gallon of water and applying 1 to 2 gallons of finished spray per mound. The mounds should be treated with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. Treat a four-foot diameter circle around the mound. For best results, apply in cool weather (65-80°F) or in early morning or late evening hours. <b>Note:</b> A spray rig that is calibrated to apply 1 fl. oz. per 1,000 square feet of Wisdom Pro L&H in 5 gallons per 1,000 square feet contains the approximate dilution (1 teaspoon per gallon) that is



Mole Cricket (Adult)		<p>required for fire ant mound drenches in the spray tank.</p> <p>Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Apply as late in the day as possible and water in with up to 0.5 inch of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized. Treat grass areas that receive pressure from adult mole crickets at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).</p>
Mole Cricket (Nymph)		<p>Immediately prior to peak egg hatch treat grass areas that received intense adult mole cricket pressure in the spring. Optimal control is achieved at this time because young nymphs are more susceptible to insecticides and they are located near the soil surface where the insecticide is most concentrated. Control of larger, more damaging, nymphs later in the year may require both higher application rates and more frequent applications to maintain acceptable control. Apply as late in the day as possible and water in with up to 0.5 inch of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application to bring the mole crickets closer to the soil surface where contact with the insecticide will be maximized.</p>
Ticks		<p><b>Ticks (Including ticks that may transmit Lyme Disease and Rocky Mountain Spotted Fever):</b> Within the permissible uses of the label, do not make spot applications. Treat the entire area where exposure to ticks may occur. Use higher spray volumes when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed activity. Repeat application must be limited to no more than once per seven days.</p> <p><b>Deer Ticks (<i>Ixodes sp.</i>)</b> have a complicated life cycle that ranges over a two-year period and involves four life stages. Apply in the late fall and/or early spring to control adult ticks that are usually located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that reside in the soil and leaf litter.</p> <p><b>American dog ticks</b> may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field or forest. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Apply as necessary from mid-spring to early fall to control American dog tick larvae, nymphs and adults.</p>

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, do make a single repeat application of Wisdom Pro L&H if there are signs of renewed insect activity, but not sooner than two weeks after the first application.

### Wisdom Pro L&H Lawn Dilution Chart

Application Volume: Gallons per 1,000 sq. ft.	Application Rate: Fluid Ounces per 1,000 sq. ft.	Fluid Ounces* of Wisdom Pro L&H Diluted to these Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1.0	0.18	0.18	0.90	1.80	18.00
1.0	0.25	0.25	1.25	2.50	25.00
1.0	0.50	0.50	2.50	5.00	50.00
1.0	1.00	1.00	5.00	10.00	100.00
2.0	0.18	---	0.45	0.90	9.00
2.0	0.25	0.13	0.63	1.25	12.50
2.0	0.50	0.25	1.25	2.50	25.00
2.0	1.00	0.50	2.50	5.00	50.00
3.0	0.18	---	0.30	0.60	6.00
3.0	0.25	---	0.42	0.83	8.30
3.0	0.50	0.17	0.83	1.67	16.70
3.0	1.00	0.33	1.67	3.33	33.30
4.0	0.18	---	0.23	0.45	4.50
4.0	0.25	---	0.31	0.63	6.30
4.0	0.50	0.13	0.63	1.25	12.50
4.0	1.00	0.25	1.25	2.50	25.00
5.0	0.18	---	0.18	0.36	3.60
5.0	0.25	---	0.25	0.50	5.00
5.0	0.50	0.10	0.50	1.00	10.00
5.0	1.00	0.20	1.00	2.00	20.00
10.0	0.18	---	---	0.18	1.80
10.0	0.25	---	0.13	0.25	2.50
10.0	0.50	---	0.25	0.50	5.00
10.0	1.00	0.10	0.50	1.00	10.00

\*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 Wisdom Pro L&H.

#### ORNAMENTALS AND TREES

For ornamental applications (trees, shrubs, ground covers, bedding plants, and foliage plants) apply 0.125 to 1.0 fl. oz. of Wisdom Pro L&H per 1,000 square feet or 5.45 to 43.56 fl. oz. per 100 gallons. Wisdom Pro L&H may be diluted and applied in various volumes of water providing that the maximum single application label rate which is 1.0 fl. oz. per 1,000 square feet or 43.56 fl. oz. per 100 gallons is not exceeded. Wisdom Pro L&H may be applied through low volume application equipment by dilution with water or other carriers and providing that the maximum label rate (1.0 fl. oz. per 1,000 square feet or 43.56 fl. oz. per 100 gallons) is not exceeded. Do not apply when the wind speed is greater than 15 mph.

Apply the specified application rate as a full coverage foliar spray. Repeat treatment as necessary to achieve control using higher application rates as pest pressure and foliage area increases. Limit repeat applications to no more than once per seven days.

Certain cultivars may be sensitive to the final spray solution. Treat a small number of plants and observe for one week prior to application to the entire planting.

**ORNAMENTAL APPLICATION RATES**

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, Wisdom Pro L&H may be applied at up to 1 fl. oz. per 1,000 square feet (43.5 fl. oz. per 100 gallons) to control each of the pests listed in this Table. Use the higher application rates when maximum residual control is desired.

Pest	Application Rate Wisdom Pro L&H	
	Fluid Ounces per 1,000 square feet	Fluid Ounces per 100 gallons
Bagworms <sup>1</sup> Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars	0.125 - 0.250	5.45 - 10.89
Adelgids <sup>†</sup> Ants Aphids Bees Beet Armyworm Beetles <sup>2, †</sup> Black Vine Weevil (Adults) Brown Soft Scales Broad Mites Budworms California Red Scale (Crawlers) <sup>2</sup> Centipedes Cicadas <sup>†</sup> Citrus Thrips Clover Mites Crickets Diaprepes (Adults) Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Grasshoppers Japanese Beetle (adults) <sup>†</sup> Leafhoppers Leafrollers Mealybugs Millipedes Mites Mosquitoes Orchid Weevil Pillbugs Pine Needle Scales (Crawlers) <sup>2</sup> Plant Bugs (Including <i>Lygus spp.</i> ) Psyllids <sup>†</sup> San Jose Scales (Crawlers) <sup>2</sup> Scorpions Sowbugs Spider Mites <sup>3</sup> Spiders	0.25 - 0.50	10.89 - 21.78

Spittlebugs† Thrips Tip Moths Treehoppers† Twig Borers <sup>2</sup> Wasps Weevils <sup>2</sup> Whiteflies	0.25 - 0.50	10.89 - 21.78
Imported Fire Ants** Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Spider Mites <sup>3</sup>	0.50 - 1.00	21.78 - 43.56

<sup>1</sup>**Bagworms:** Apply when larvae begin to hatch and spray larvae directly. Applications when larvae are young will be most effective.

<sup>2</sup>**Beetles<sup>†</sup>, Scale Crawlers, Twig Borers, and Weevils:** Treat trunks, stems and twigs in addition to plant foliage.

<sup>3</sup>**Spider Mites:** Wisdom Pro L&H provides optimal twospotted spider mite control when applied during spring to mid-summer. The high application rate (43.56 fl.oz. per 100 gallons) and/or more frequent applications (the minimum application interval is 1 week) may be required for acceptable twospotted spider mite control during mid- to late-summer. The addition of a surfactant or horticultural oil may increase the effectiveness of Wisdom Pro L&H. Combinations of Wisdom Pro L&H with other registered miticides have also proven effective. Alternately, Wisdom Pro L&H applications may be rotated with those of other products that have different modes of action in control programs that are designed to manage resistance by twospotted spider mites. Consult your local Cooperative Extension Service for resistance management recommendations in your region.

\*\*For foraging ants.

†Not for use in California.

### Wisdom Pro L&H Ornamental Dilution Chart

Application Volume: Gallons per		Application Rate: Fluid ounces per	Fluid Ounces* of Wisdom Pro L&H Diluted to these Volumes of Finished Spray			
1,000 sq. ft	Acre	1,000 sq. ft	1 gallon	5 gallons	10 gallons	100 gallons
2.3	100	0.125	---	0.27	0.54	5.40
2.3	100	0.250	0.11	0.54	1.08	10.80
2.3	100	0.500	0.22	1.09	2.17	21.70
2.3	100	1.000	0.44	2.17	4.35	43.50
4.6	200	0.125	---	0.14	0.27	2.70
4.6	200	0.250	---	0.27	0.54	5.40
4.6	200	0.500	0.11	0.54	1.09	10.90
4.6	200	1.000	0.22	1.09	2.17	21.70
6.9	300	0.125	---	---	0.18	1.80
6.9	300	0.250	---	0.18	0.36	3.60
6.9	300	0.500	---	0.36	0.72	7.20
6.9	300	1.000	0.15	0.72	1.45	14.50

\*To convert to milliliters, multiply by 29.57.

300 gallons per acre is a typical application volume for landscape ornamental applications.

1 fl. oz. = 29.57 ml = 2 tablespoons = 6 teaspoons

Do not use household utensils to measure Wisdom Pro L&H.

**Calculating Dilution Rates Using the Ornamental Application Rates Table and the Wisdom Pro L&H Ornamental Dilution Chart:** The following steps should be taken to determine the appropriate dilution of Wisdom Pro L&H that is required to control specific pests:

1. Identify the least susceptible target pest (the pest requiring the highest application rate for control).
2. Select an application rate in terms of fl. oz. of Wisdom Pro L&H.
3. Identify your application volume and how much spray mix you want to prepare.
4. Use the Ornamental Dilution Chart to determine the appropriate volume of Wisdom Pro L&H that must be mixed in your desired volume of water.

For example, suppose you are trying to control black vine weevil adults on rhododendron. The Ornamental Application Rates table shows that 0.25 to 0.5 fl. oz. of Wisdom Pro L&H should be applied per 1,000 square feet. You select an application rate of 0.5 fl. oz. per 1,000 square feet because maximum residual control is desired. Your application volume is approximately 300 gallons per acre, which is equivalent to 6.9 gallons per 1,000 square feet. Consulting the Ornamental Dilution Chart reveals that you should dilute 0.72 fl. oz. of Wisdom Pro L&H in 10 gallons of water.

### **PEST CONTROL ON OUTSIDE SURFACES AND AROUND BUILDINGS**

For control of Ants, Carpenter Ants, Fire Ants, Armyworms, Bees, Beetles<sup>†</sup>, Biting Flies, Boxelder Bugs, Centipedes, Chiggers, Chinch Bugs, Clover Mites, Crickets, Cutworms, Dichondra Flea Beetles, Earwigs, Elm Leaf Beetles, Firebrats, Fleas, Flies, Gnats, Grasshoppers, Hornets, Japanese Beetles<sup>†</sup>, Midges, Millipedes, Mosquitoes, Moths, Roaches (including Cockroaches), Scorpions, Silverfish, Sod Webworms, Sowbugs (Pillbugs), Spider Mites, Spiders (including Black Widow Spiders), Springtails, Termites, Ticks (including Brown Dog Ticks), and Wasps.

<sup>†</sup>Not for use in California.

Apply Wisdom Pro L&H using a 0.02% to 0.06% diluted product emulsion as a residual spray to outside surfaces of buildings, refuse dumps, lawns, areas adjacent or around private homes, duplexes, townhouses, condominiums, house trailers, apartment complexes, carports, garages, fence lines, storage sheds, barns, soil, trunks of woody ornamentals and other areas where pests congregate. Use a spray volume of up to 10 gallons of diluted product emulsion per 1,000 square feet. Higher application volumes may be used to obtain the desired coverage of dense vegetation or landscaping materials.

**Mixing Directions:** For 0.02% diluted product emulsion, mix 0.33 fl. oz. of Wisdom Pro L&H per gallon of water. For 0.06% diluted product emulsion, mix 1 fl. oz. Wisdom Pro L&H per gallon of water (1 fl. oz. = 2 tablespoons). Do not use household utensils to measure Wisdom Pro L&H. Use the higher label rate for heavy pest infestation, quicker knockdown or longer residual control. The maximum single application rate is 1 fl. oz. per gallon of water applied at up to 10 gallons of mix per 1,000 square feet. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity. Repeat application must be limited to no more than once per seven days.

Applications to vertical exterior surfaces (e.g., foundations) are permitted to a maximum height of 2 feet from ground level. Sections of vertical exterior surfaces that abut non-porous horizontal surfaces can only be treated if either;

- 1) these sections are protected from rainfall and spray from sprinklers OR
- 2) they do not drain into a sewer, storm drain, or curbside gutter (e.g., not to sections that abut driveways or sidewalks that drain into streets).

To help achieve maximum control of the pest, treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 0.5 to 1.0 fl. oz. of product per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.

**Perimeter Treatment:** Apply to a band of soil and vegetation up to 7 feet wide around and adjacent to the structure. Also, treat the foundation of the structure to a height of 2 feet. Apply 0.33 to 1.0 fl. oz. of Wisdom Pro L&H per 1,000 square feet in sufficient water to provide adequate coverage (refer to Perimeter Application Dilution Chart). The maximum single application rate is 1 fl. oz. per gallon of water applying 1 gallons of mix per 1,000 square feet. For sections of foundation that abut non-porous horizontal surfaces, the treated areas must be protected from rainfall and spray from sprinklers or they must not drain into a sewer, storm drain, or curbside gutter (e.g., not to sections that abut driveways or sidewalks that drain into the streets).

## Wisdom Pro L&H Perimeter Application Dilution Chart

Application Volume: Gallons per 1,000 sq. ft.	Application Rate: Fluid ounces per 1,000 sq. ft.	Fluid Ounces* of Wisdom Pro L&H Diluted to These Volumes of Finished Spray			
		1 gallon	5 gallons	10 gallons	100 gallons
1	0.33	0.33	1.67	3.33	33.3
1	0.50	0.50	2.50	5.00	50.0
1	0.67	0.67	3.33	6.67	66.7
1	0.75	0.75	3.75	7.50	75.0
1	1.00	1.00	5.00	10.00	100.0
2	0.33	0.17	0.83	1.65	16.5
2	0.50	0.25	1.25	2.50	25.0
2	0.67	0.33	1.67	3.35	33.5
2	0.75	0.38	1.88	3.75	37.5
2	1.00	0.50	2.50	5.00	50.0
3	0.33	0.11	0.55	1.10	11.0
3	0.50	0.17	0.83	1.67	16.7
3	0.67	0.22	1.11	2.23	22.3
3	0.75	0.25	1.25	2.50	25.0
3	1.00	0.33	1.67	3.33	33.3
4	0.33	---	0.41	0.83	8.3
4	0.50	0.13	0.63	1.25	12.5
4	0.67	0.17	0.84	1.67	16.7
4	0.75	0.19	0.94	1.88	18.8
4	1.00	0.25	1.25	2.50	25.0
5	0.33	---	0.33	0.67	6.7
5	0.50	0.10	0.50	1.00	10.0
5	0.67	0.13	0.67	1.33	13.3
5	0.75	0.15	0.75	1.50	15.0
5	1.00	0.20	1.00	2.00	20.0
10	0.33	---	0.17	0.33	3.3
10	0.50	---	0.25	0.50	5.0
10	0.67	---	0.33	0.67	6.7
10	0.75	---	0.38	0.75	7.5
10	1.00	0.10	0.50	1.00	10.0

\*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 Wisdom Pro L&H.

Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack and crevice treatment. 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.

Spot treatments must not exceed two square feet in size (for example, 2ft. by 1 ft or 4 ft. by 0.5 ft.).

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

1. Application to pervious surfaces such as soil, lawn, turf, and 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.

**For Ant and Fire Ant Mounds use Wisdom Pro L&H 0.06% diluted product emulsion as Drench Method:** Apply 1 to 2 gallons of emulsion to each mound area by sprinkling the mound until it is wet and treat a 4-foot diameter circle around the mound. Use the higher volume for mounds larger than 12". For best results, apply in cool weather, such as in early morning or late evening hours, but not in the heat of the day. The maximum single application rate is 1 fl. oz. per gallon of water applied at 2 gallons of mix per mound.

**Mosquito Control:** Dilute 0.33 to 1.0 fl. oz. (maximum single application rate) of Wisdom Pro L&H per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a general spray around landscapes, lawn and buildings to control mosquitoes. For higher volume applications, Wisdom Pro L&H may be diluted at lower concentrations and applied at greater volumes to deliver the desired amount of product per area (refer to the Ornamental or Perimeter Application Dilution Chart).

## **INDOOR USE**

In the home, cover all food processing surfaces and utensils during treatment or thoroughly wash before use. Cover or remove exposed food.

For control of ants, bees, beetles, boxelder bugs, carpet beetles, centipedes, cloth moths, cockroaches, crickets, earwigs, firebrats, flies, gnats, midges, millipedes, pillbugs, scorpions, silverfish, sowbugs, spiders, termites, ticks and wasps.

Use a 0.02% to 0.06% diluted product emulsion (0.33 to 1 fl. oz. per gallon of water) for residual pest control in buildings and structures and on modes of transport. Apply either as a crack and crevice, pinstream, spot, coarse, low pressure spray (25 p.s.i. or less) or with a paint brush. The maximum single application use rate for indoor use is 1 fl. oz. per gallon of water applied as a crack and crevice, pinstream, spot, coarse, low pressure spray (25 p.s.i. or less) or with a paint brush.

**Indoor Treatments:** Apply as a coarse, low pressure, crack and crevice or spot spray to areas where pests hide: baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, drawers and similar areas. Do not use as a space spray. Pay particular attention to cracks and crevices.

**Mixing Directions:** See mixing directions in "Pest Control on Outside Surfaces and Around Buildings" Section.

Wisdom Pro L&H is to be diluted with water for spray or brush application. Fill sprayer with the desired volume of water and add Wisdom Pro L&H. Close and shake before use in order to ensure proper mixing. Mix only the amount of solution needed for the application. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity. Repeat application must be limited to no more than once per seven days.

**Cockroaches, Crickets, Firebrats, Scorpions, Silverfish, Spiders and Ticks:** Apply as a coarse, low pressure spray to areas where these pests hide: baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, and stoves, the underside of shelves, drawers and similar areas. Pay particular attention to cracks and crevices.

**Ants:** Apply to any trails, around doors and windows and other places where ants may be found.

**Bees and Wasps:** Apply to nests late in the evening when insects are at rest. Thoroughly spray nest and entrance and surrounding areas where insects alight.

**Boxelder Bugs, Centipedes, Earwigs, Beetles, Millipedes, Pillbugs, and Sowbugs:** Apply around doors and windows and other places where these pests may be found or where they may enter premises. Spray baseboards, storage areas and other locations.

## **FOOD/FEED HANDLING ESTABLISHMENT APPLICATIONS**

Applications of this product are permitted in both food/feed and nonfood areas of food/feed handling establishments as a general surface, spot, or crack and crevice treatment.

Food/feed handling establishments are defined as places other than private residences in which exposed food/feed is held, processed, prepared or served. Included also are areas for receiving, storing, packing (canning, bottling, wrapping, boxing), preparing, edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups) of food. Serving areas where food is exposed and the facility is in operation are also considered food areas.

Permitted non-food areas of use: garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, garages, mop closets and storage (after canning or bottling).

Permitted use sites: aircraft (do not use in aircraft cabins), apartment buildings, bakeries, bottling facilities, breweries, buses, cafeterias, candy plants, canneries, dairy product processing plants, food manufacturing plants, food processing plants, food service establishments, granaries, grain mills, hospitals, hotels, industrial buildings, laboratories, meat/poultry/egg processing plants, mobile/motor homes, nursing homes, offices, railcars, restaurants, schools, ships, trailers, trucks, vessels, warehouses, and wineries.

**Surface Application:** Do not use this application method in food/feed handling establishments when the facility is in operation or foods/feeds are exposed. Do not apply directly to food products. Cover or remove all food processing and/or handling equipment during application. After application in food processing plants, bakeries, cafeterias, and similar facilities, wash all equipment, benches, shelving and other surfaces which food will contact. Clean food handling or processing equipment and thoroughly rinse with clean, fresh water.

**Spot, Crack and Crevice Application:** Spot or crack and crevice applications may be made while the facility is in operation; however, food should be covered or removed from area being treated. Do not apply directly to food.

## **TERMITE CONTROL (ABOVE GROUND ONLY)**

The purpose of the applications described below are to kill termite workers or winged reproductives that may be present at the time of treatment. Do not use this product for subterranean soil or foundation termite barrier applications or where mechanical application means such as rodding, trenching or masonry drilling would be required. This product is not recommended as sole protection against termites. For active termite infestations, get a professional inspection. The maximum single application rate is 1 fl. oz. per gallon of water applied as directed below.

**Termites Indoors:** To control exposed workers and winged reproductive termites in localized areas, dilute 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and apply as a coarse fan spray at the rate of one gallon per 1,000 square feet to attics, unfinished basements and other void areas. Treat swarming termites as well as the areas in which they congregate.

**Termites Outdoors:** To control above-ground termites in localized areas of infested wood, drill to locate the interior infested cavity, dilute 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and apply as a liquid to voids and galleries in damaged wood as well as to spaces between wooden structural members and between the sill plate and foundation where wood is vulnerable to attack. Applications may be made to inaccessible areas by drilling and then injecting the dilution, with a suitable directional injector, into damaged wood or wall voids. All treatment holes drilled in construction elements in commonly occupied areas of structures should be securely plugged after treatment.

To control termite carton nests in building voids or in localized areas of infested wood, dilute 1.0 fl. oz. of Wisdom Pro L&H per gallon of water, drill to locate the interior infested cavity and apply as a liquid using a pointed injection tool. Multiple injection points and varying depths of injection may be necessary to achieve control. When possible, the carton nest material should be removed from the building void after treatment.

## **ANT CONTROL**

**Nuisance Ants Indoors:** For best results, locate and treat ant nests. Dilute 0.5 to 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a general surface, crack and crevice or spot treatment to areas where ants have been observed or are expected to forage: baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, cracks and crevices and in corners. Particular attention should be given to treating entry points into the home or premises such as around doors and windows. When using



Wisdom Pro L&H in combination with baits, apply Wisdom Pro L&H as instructed above, and use baits in other areas that have not been treated with Wisdom Pro L&H.

**Nuisance Ants Outdoors:** For best results, locate and treat ant nests. Apply Wisdom Pro L&H to ant trails around doors and windows and other places where ants have been observed or are expected to forage. Apply a perimeter treatment using either low or high volume applications described in the “Pest Control on Outside Surfaces and Around Buildings” section of this label. The higher labeled dilutions and/or application volumes, as well as more frequent applications (the minimum application interval is 1 week), may be necessary when treating concrete surfaces for ant control.

The following procedures must be followed to help achieve maximum control of the pest:

1. Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 0.5 to 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Treat porous surfaces and vegetation with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fl. oz. of Wisdom Pro L&H per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
3. For maximum residual control, dilute 0.5 to 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet.

**Carpenter Ants Indoors:** Dilute 0.5 to 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a general surface, crack and crevice or spot treatment to areas where carpenter ants have been observed or are expected to forage: baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, cracks and crevices and in corners. Particular attention should be given to treating entry points into the home or premises such as around doors and windows. Spray into cracks and crevices or drill holes and spray or mist into voids where carpenter ants or their nests are present. When using Wisdom Pro L&H in combination with baits, apply Wisdom Pro L&H as instructed above, and use baits in other areas that have not been treated with Wisdom Pro L&H.

**Carpenter Ants Outdoors:** Apply Wisdom Pro L&H to carpenter ant trails around doors and windows and other places where carpenter ants have been observed or are expected to forage. For best results, locate and treat carpenter ant nests. Apply a perimeter treatment using either low or high volume applications described in the “Pest Control on Outside Surfaces and Around Buildings” section of this label. The higher dilutions and/or application volumes, as well as more frequent applications, may be necessary when treating concrete surfaces for carpenter ant control. The following procedures must be followed to help achieve maximum control of the pest:

1. Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 0.5 to 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.
2. Treat the trunks of trees that have carpenter ant trails, or upon which carpenter ants are foraging, using 0.5 to 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and applying this dilution to thoroughly wet the bark from the base of the tree to as high as possible on the trunk.
3. Treat porous surfaces and vegetation with high volume applications using dilutions that are calculated to deliver 0.5 to 1.0 fl. oz. of Wisdom Pro L&H per 1,000 square feet (refer to the Ornamental and Perimeter Application Dilution Charts).
4. For maximum residual control, dilute 0.5 to 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet.

To control carpenter ants inside trees, utility poles, fencing or deck materials and similar structural members, drill to locate the interior infested cavity and inject a 0.06% dilution (1.0 fl. oz. of Wisdom Pro L&H per gallon of water) into the cavity using a sufficient volume and an appropriate treatment tool with a splashback guard.

To control carpenter ants that are tunneling in the soil, dilute 0.5 to 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and apply as a drench or inject the dilution at intervals of 8 to 12 inches. Establish a uniform vertical barrier at the edges of walls, driveways or other hard surfaces where ants are tunneling beneath the surfaces.

For wood piles and stored lumber apply a 0.06% diluted product emulsion. Use a hose-end sprayer or sprinkling can to deliver a coarse drenching spray. Treated wood can be burned or used for lumber one month after treatment. Do not use in structures.

To protect firewood from carpenter ants (and termites), dilute 1.0 fl. oz. of Wisdom Pro L&H per gallon of water and apply to the soil beneath where the firewood will be stacked at the rate of one gallon of dilution per 8 square feet. DO NOT treat firewood with this product.

### **Posts, Poles, and Other Constructions**

Create an insecticidal barrier in the soil around wooden constructions such as signs, fences and landscape ornamentation by applying a 0.06% diluted product emulsion. The maximum single application rate is 1 fl. oz. per gallon of water applied as directed.

Previously installed poles and posts may be treated by sub-surface injection or treated by gravity-flow through holes made from the bottom of a trench around the pole or post. Treat on all sides to create a continuous insecticidal barrier around the pole. Use 1 gallon of diluted product emulsion per foot of depth for poles and posts less than 6 inches in diameter. For larger poles, use 1.5 gallons of diluted product emulsion per foot of depth. Apply to a depth of 6 inches below the bottom of the wood. For larger constructions, use 4 gallons per 10 linear feet per foot of depth.

**Treatment of Wood-in-Place for Control of Wood-Infesting Insects:** (Localized Areas in Structure) For the control of listed insects such as Ants, Carpenter Ants, and wood-infesting beetles such as Old House Borer and Powder Post in localized areas of infested wood in and around structures, apply a 0.06% diluted product emulsion to voids and galleries in damaged wood and in spaces between wooden members of a structure and between wood and foundations where wood is vulnerable. The maximum single application rate is 1 fl. oz. per gallon of water applied as directed. Paint on or fan spray applications may also be used. Plastic sheeting must be placed immediately below overhead areas that are spot treated. Application may be made to inaccessible areas by drilling, and then injecting diluted product emulsion with a crack and crevice injector into the damaged wood or void spaces. This type of application is not intended to be a substitute for soil treatment, mechanical alteration or fumigation to control extensive infestation of wood-infesting insects.

**Control of Bees and Wasps Indoors:** To control Bees, Wasps, Hornets, and Yellowjackets apply a 0.06% diluted product emulsion. Apply in the late evening when insects are at rest. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity.

**Important:** Do not apply product until location of heat pipes, ducts, water and sewer lines, and electrical conduits are known and identified. Avoid puncturing and injection into these structural elements. Do not apply into electrical fixtures, switches, or sockets.

In the home, cover all food processing surfaces and utensils in the treatment area during treatment or thoroughly wash before re-use. Remove pets, birds, and cover aquariums before spraying. Do not permit humans or pets to contact treated surfaces until the spray has dried.

During any overhead applications to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials. Wear protective clothing, unvented goggles and gloves when applying to overhead areas.. Avoid touching sprayed surfaces until spray has completely dried.

### **Broadcast Treatment of Wood for the Control of Wood-Infesting Insects and Nuisance Pests Outside of Structure**

Apply a 0.06% diluted product emulsion with a fan spray using a maximum pressure of 25 p.s.i. Treat just to the point of run-off. The maximum single application rate is 1 fl. oz. per gallon of water applied as directed.

To control wood-infesting insects active inside trees, utility poles and/or fence posts, drill to find the interior infested cavity and inject a 0.06% diluted product emulsion. To control Bees, Wasps, Hornets, and Yellowjackets, apply in late evening when insects are at rest. Aim spray at nest openings in ground, bushes and in cracks and crevices which may harbor nests, saturating nest openings and contacting as many insects as possible.

### **Pests Under Slabs**

Infestations of listed Arthropods, such as Ants, Cockroaches and Scorpions inhabiting under slab area may be controlled by drilling and injecting or horizontal rodding and then injecting 1 gallon of a 0.06% to 0.12% diluted product emulsion per 10 square feet or 2 gallons of diluted product emulsion per 10 linear feet. The maximum single application rate is 2 fl. ozs. per gallon of water and then injected at 1 gallon of mix per 10 square feet or 2 gallons of mix per 10 linear feet.

**Formula for Determining the Active Ingredient Content of the Finished Spray Mixture:** The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing Wisdom Pro L&H:

$$\frac{(7.9)(\text{Fl. Oz. of Wisdom Pro L\&H added to tank})}{(\text{Gallons of Finished spray mix})(128)} = \text{Percent Active Ingredient in spray mix}$$

#### USE RESTRICTIONS

Do not apply by air.

Do not apply in greenhouses, nurseries.

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

Do not use on sod farm turf, golf course turf, or grass grown for seed.

Do not use this product in non-ventilated areas such as accessible crawl spaces.

Do not use this product for subterranean soil or foundation termite barrier applications or where mechanical application means such as rodding, trenching or masonry drilling would be required.

Do not apply a broadcast application to interior surfaces of homes.

Do not apply to pets, crops, or sources of electricity.

Do not allow spray to contact food, foodstuffs, food contacting surfaces, food utensils or water supplies.

Do not treat areas where food is exposed.

During indoor surface applications do not allow dripping or run-off to occur.

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

Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.

Do not apply in classrooms when in use.

Do not apply when occupants are present in the immediate area in institutions such as libraries, sports facilities, etc.

Do not apply this pesticide in livestock buildings (barns).

#### ATTENTION

Do not treat firewood.

Use only in well ventilated areas.

During any application to overhead areas within the structure, cover surfaces below with plastic sheeting or similar material.

Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.

Wisdom Pro L&H will not stain or damage any surface that water alone will not stain or damage.

Application equipment that delivers low volume treatments, such as the Micro-Injector® or Actisol™ applicators, may also be used to make crack and crevice, deep harborage, spot and general surface treatments of Wisdom Pro L&H.

### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not dispose down-the-drain or sewer. Call your local solid waste agency for local disposal options.

**PESTICIDE STORAGE:** Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers.

**In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC: 1-800-424-9300.**

**To confine spill:** If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Do not contaminate water, food or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### CONTAINER HANDLING:

**For plastic Containers under 1 gallon:** Nonrefillable container. Do not reuse or refill this container. 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 ¼ 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 or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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#### **LIMITED WARRANTY AND DISCLAIMER**

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The manufacturer warrants (a) that this product conforms to the chemical description on the label and (b) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions. THIS WARRANTY DOES NOT EXTEND TO THE USE OF THIS PRODUCT CONTRARY TO LABEL INSTRUCTIONS, OR UNDER CONDITIONS NOT REASONABLY FORESEEABLE.

**THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.**

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