Avenger® Weed Killer - Frequently Asked Questions

Q: What is Avenger® Weed Killer Organic Herbicide?
A: Avenger® Weed Killer is a fast acting, highly effective, non-selective, post-emergence organic herbicide that safely kills weeds, grasses and broadleaves.

Q: What is the difference between Nature’s Avenger Weed Killer and Avenger® Weed Killer?
A: There is no difference; the formulation is the same for Nature’s Avenger Organic Herbicide and Avenger Weed Killer. In 2009, Cutting Edge Formulations re-launched the brand and changed the product name to Avenger® Weed Killer.

Q: How does Avenger® Weed Killer work?
A: The active ingredient d-Limonene (citrus oil) naturally strips away the waxy plant cuticle, causing it to dehydrate and die.

Q: What is the active ingredient in Avenger® Weed Killer organic herbicide?
A: The active ingredient in Avenger® Weed Killer is an emulsified d-Limonene (citrus oil), which acts as a natural degreaser. D-Limonene is found in more than 300 fruits, vegetable, herbs and spices. The U.S. Food and Drug Administration (FDA) classifies d-Limonene as Generally Recognized as Safe (GRAS) – essentially no measurable toxicity for certain uses. The Environmental Protection Agency (EPA) states that “d-Limonene is practically non-toxic to birds, fish and mammals and is highly biodegradable.” d-Limonene is an excellent degreasing agent and is commonly used in soaps, foods, lotions, mouthwash and perfumes. Avenger® Weed Killer DOES NOT contain the following ingredients:
- Glyphosate
- Corn gluten
- Acetic Acid/Clove Oil Combination
- "Food Grade" 200 Grain Vinegar or 20% Acetic Acid
- Fatty Acid
- Salt
- Any synthetic chemicals

Q: How is d-Limonene produced?
A: When the juice is squeezed from oranges, an oily film remains on top; this oil is primarily composed of d-Limonene. The citrus rind is then squeezed further to remove any remaining oil in the citrus skin. That citrus oil primarily made of d-Limonene.

Q: What other ingredients besides d-Limonene are in Avenger® Weed Killer?
A: Avenger® Weed Killer’s patented Ready to Use (RTU) formula is made up of water and 17.5% d-Limonene. The remaining ingredients are proprietary non-toxic and safe surfactants to help dissolve the d-Limonene (Citrus Oil) in water.

Q: Where is Avenger® Weed Killer Organic Herbicide manufactured?
A: Avenger® Weed Killer is formulated and manufactured in Buford, GA.
Q: Does it have to be hot or sunny for Avenger® Weed Killer to work?
A: No, Avenger® Weed Killer will work under cool (down to 40 degrees F) and overcast conditions. This gives growers the opportunity to get an earlier start on weed control, as weeds are generally smaller, more susceptible and less likely to recover. However, faster results will be seen on a hot, humid, sunny days.

Q: How does rain affect Avenger® Weed Killer?
A: Do not spray Avenger® Weed Killer in the rain or if rain is expected within one hour. It can wash the product off the plant leaf surface reducing the product’s efficacy as well as transfer to plants and grasses that you don’t want to kill.

Q: How soon can pets and children inhabit into sprayed areas?
A: Pets and children can inhabit sprayed areas as soon as the spray dries. As long as the weed remains wet, children and pets may inadvertently transfer the product to desirable foliage and possibly affect that foliage.

Q: What is the re-entry interval after spraying Avenger® Weed Killer?
A: For all non–agricultural situations (homeowner, landscaper, municipalities, etc.) there is no re-entry time. However, we recommend that you allow for complete dry time before re-entry. This will prevent Avenger® Weed Killer from unintentionally spreading to plants and grasses that you don’t want to kill to in another area.

Q: Can I plant after spraying Avenger® Weed Killer?
A: Sprayed areas can be planted within 2-3 hours after application or after the solution dries. Through a process called half-life, the product dissipates and turns into CO2 after it has dried.

Q: Does Avenger® Weed Killer kill the roots?
A: It depends on the depth of root system. Avenger® Weed Killer naturally strips away the waxy plant cuticle, causing it to dehydrate and die. If the weed has a shallow root system, such as annual weeds, killing the tops can kill the roots. If the weed has a deep tap root, such as a perennial weed (dandelion), removing the top growth will not immediately kill the root. Additional applications may be necessary. For best results, spray weeds when they are small so they are more susceptible to Avenger® Weed Killer and less likely to recover.

Q: How fast will I see results with Avenger® Weed Killer?
A: Avenger® Weed Killer is fast acting. Weeds can show darkening of foliage within hours. On warmer days, a complete burndown typically occurs in less than one day.

Q: What weeds are most responsive to Avenger® Weed Killer?
A: Avenger® Weed Killer kills most weeds, grasses and broadleaves. The active ingredient, d-Limonene is a strong degreasing agent which essentially dissolves the waxy cuticle of the plant. Thus, plants with thinner cuticles are most responsive to Avenger® Weed Killer. Younger and smaller weeds that are growing quickly will be easier to kill than mature, hardened off weeds. Also, weeds in a hot and humid environment will have thinner cuticles than those same plants in dry conditions.

Avenger® Weed Killer Controls most weeds, grasses and broadleaves including: Spurge, Sowthistle, Redroot Pigweed, Tumbling Pigweed, Annual Bluegrass, Shepherd’s Purse, Common Purslane, Common Chickweed, Clover, Hairy Fleabane, Crabgrass, Smooth Crabgrass, Dandelion, Whitestem Filaree, Bermuda Grass, Bindweed, Shepherds Purse, Prickly Lettuce, Lambsquarters and Little Mallow

Please contact us at support@avengerorganics.com or call (866) 906-9333 if you have a specific weed, grass or broadleaf question.

Q: Will Avenger® Weed Killer prevent weeds from coming back?
A: Avenger® Weed Killer is a fast-acting, post-emergence herbicide for use on weeds that already exist. It will not control weeds that have yet to germinate.
Q: Is Avenger® Weed Killer okay to use on grass and not kill it?
A: Avenger® Weed Killer is a non-selective herbicide and will affect all contacted vegetation. Avoid contacting desirable plants. Overspray or drift will injure or kill contacted vegetation. Do not spray on lawns, as it will damage or kill treated grass.

Q: What is the difference between Avenger® Weed Killer and AvengerAG® Burndown Herbicide?
A: Both products are non-selective, post-emergence herbicides that quickly and effectively kills weeds, grasses and broadleaves without adversely affecting the environment. Avenger® Weed Killer and AvengerAG® Burndown Herbicide share the same active ingredient d-Limonene (citrus oil), which naturally strips away the waxy plant cuticle, causing it to desiccate & die.

The main differences are as follows:

- Avenger® Weed Killer is EPA labeled and approved for organic garden or DIY/Home and Garden Use. “FOR ORGANIC GARDENING” is intended to be used where the product is typically for residential use and does not require worker protection language. The percentage of active ingredient is 70% (d-Limonene).
- AvengerAG® Burndown Herbicide is EPA labeled and approved for crop and non-crop production and NOP compliant in organic production for use on certified organic farms. “FOR ORGANIC PRODUCTION” is intended for use in commercial crop production, commercial animal production, and/or commercial food processing. The percentage of active ingredient is 55% (d-Limonene). AvengerAG® Burndown Herbicide contains a slightly different inactive ingredient formulation vs. Avenger® Weed Killer.
- AvengerAG® Burndown Herbicide is currently registered for sale in CA, GA, OR, PA, VA, WA, FL, TN, HI, TX, where as Avenger® Weed Killer is registered for sale in all 50 United States except South Dakota, Washington D.C., as well as the U.S. Virgin Islands and Puerto Rico.

Q: How does Avenger® Weed Killer differ from other herbicides containing Glyphosate?
A: Avenger® Weed Killer is made from natural ingredients without the use of any chemicals in the formula and without any of the ingredients being chemically altered. Synthetic weed killers are weed killers made of compounds formed through a chemical process by a human agency, as opposed to those of natural origin. Glyphosate (found in products such as Roundup®) is an example of a synthetic herbicide.

Q: How does Avenger® Weed Killer’s effectiveness compare to other weed killers that contain the leading synthetic chemical Glyphosate?
A: University and independent testing results prove that Avenger® Weed Killer is as effective, but faster acting when compared against leading synthetic herbicides including Glyphosate. Glyphosate typically takes 7 to 14 days to work; Avenger® Weed Killer acts much faster, often seeing results in 1-2 hours.

Q: How does Avenger® Weed Killer differ from other herbicides that contain vinegar (acetic acid), citric acid, clove oil and fatty acids (soap)?
A: Avenger® Weed Killer is made from natural ingredients without the use of any chemicals in the formula and without any of the ingredients being chemically altered. When tested against herbicides that contain vinegar (acetic acid), citric acid, clove oil and fatty acids (soap), Avenger® is more effective with quicker results.

Q: Why is Avenger® Weed Killer more expensive than herbicides containing Glyphosate?
A: We believe our pricing fairly reflects the cost of producing an organic herbicide that highly bio-degradable, highly effective and is safe to use around pets and wildlife. The strict conditions associated with producing d-Limonene and the required organic certifications raise the cost per unit. d-Limonene is of a natural origin and is made through a process when juice is squeezed from oranges. Glyphosate is a made through a chemical process and is manufactured in large quantities. Organic certifications are not required nor are the same strict conditions needed to produce Glyphosate for mass production. This results in low production, processing, distribution and marketing costs per unit. We appreciate all of our customers who support companies and farmers who produce organic goods and who are confident that the benefits outweigh the extra price.
Q: Does Avenger® Weed Killer or any other Avenger Organics® products contain Genetically Modified ingredients?
A: None of our products contain genetically modified (GM) ingredients. In fact, to be considered for National Organic Program approval (EPA+USDA) and as a Organic Materials Review Institute (OMRI) listed product, products CAN NOT contain any (GM) ingredients.

Q: Is Avenger® Weed Killer Environmental Protection Agency (EPA) registered and approved?
A: Yes. EPA registration numbers: Concentrate #82052-1; RTU #82052-3. Avenger® Weed Killer is EPA approved under the label language indicating that all ingredients (active and inert) in a pesticide product and all uses meet the criteria defined by the U.S. Department of Agriculture (USDA) National Organic Program (NOP) Rule - Approved for Use in Organic Gardening – NOP Rule. “FOR ORGANIC GARDENING” is intended to be used where the product is typically for residential use and does not require worker protection language.

Q: Is Avenger® Weed Killer cleared by Organic Materials Research Institute (OMRI)?
A: Yes. OMRI independently reviews products that are intended for use in certified organic production, handling and processing. A thorough review of products ensures that they comply with USDA organic standards.

Q: Can I get a copy of the Organic Materials Research Institute (OMRI) certificate?
A: Yes. A copy of our OMRI certificate can be found by clicking this link.

Q: Is Avenger® Weed Killer harmful if I breath in the vapors found in Avenger® Weed Killer?
Avenger® Weed Killer’s active ingredient d-Limonene is a strong degreasing agent. While it is organic and safe for the environment, it is very powerful and care has to be taken when handling any strong substance. Just as you would caution handling hot water, which is 100% natural and safe for the environment, the same should be taken with any herbicide you choose to use. Please refer to the MSDS sheet for more information.
* Always read and follow label directions for all products. Information here is not a substitute for directions on the product labels.

Q: If Avenger® Weed Killer is an organic product, why does the label say “Harmful if absorbed through skin” and “Flush skin for 15 to 20 minutes”, is it safe to use?
A: Avenger® Weed Killer’s active ingredient, d-Limonene is a strong degreasing agent. While it is organic and safe for the environment, it is very powerful and care has to be taken when handling any strong substance. Just as you would caution handling hot water, which is 100% natural and safe for the environment, the same should be taken with any herbicide you choose to use.
* Always read and follow label directions for all products. The information provided here is not a substitute for directions on the product labels.

Q: What are the mixing ratio and rates for Avenger® Weed Killer Concentrate?
A: Small annual weeds: For the control of annual weeds less than 6 inches tall, use a 1:6 ratio (1 part of Avenger® Weed Killer into 6 parts of water). Larger annual weeds: For the control annual weeds above 6 inches, use a 1:4-1/2 ratio (1 part of Avenger® Weed Killer in 4-1/2 parts of water). Harder to control weeds (weeds with a thick cuticle such as ivy and hard to control perennials): Use a 1:3 ratio (1 part of Avenger® Weed Killer in 3 parts of water).
* Always read and follow label directions for all products. Information here is not a substitute for directions on the product labels.