

# TIMELY INFORMATION

## Agriculture & Natural Resources

### Retail garden store herbicide choices for invasive plant control for homeowners

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**Introduction.** For invasive plant control, the best option for many homeowners is herbicides with the active ingredients glyphosate and triclopyr amine. Glyphosate is non-selective, damaging or killing all plants it comes in contact with. It is absorbed through leaves and freshly cut plant stems but has no soil activity so it is not absorbed by the roots. Triclopyr amine controls woody plants, vines, blackberries and most broadleaf plants but is generally safe on many grasses. Triclopyr amine is also absorbed through leaves and freshly cut plant stems and does have a small amount of soil activity.

**Available Products.** Several glyphosate and triclopyr amine products are available but they are NOT created equal (Table 1). Products fall into two categories: concentrates and ready to use (RTU).

**Concentrates** are what the name implies, a highly concentrated product that must be mixed with a carrier such as water before it is applied. Typically, a few fluid ounces of herbicide concentrate are mixed with a gallon of water to form a low percentage herbicide solution. Commonly available concentrates include Roundup Pro, Roundup Poison Ivy & Tough Brush Killer Plus Concentrate and others (Table 1). Concentrates are generally available in sizes from one quart to 2.5 gallons. While initially appearing to be more expensive, concentrates are generally a better deal because a little often goes a long way.

**Ready to use (RTU) products** are also just what the name implies and no mixing is required. Examples include Bayer Advanced Brush Killer Plus Ready to Use and Roundup Ready to Use Poison Ivy & Tough Brush Killer Plus. Many ready to use products come in bottles or jugs prefitted with a spray nozzle, which eliminates the need for a separate sprayer. However, these RTU spray nozzles are not designed to be reused. RTU products come in a range of sizes from one quart to one gallon. RTU products often appear cheaper but become very expensive when jobs are large.

Almost all glyphosate and triclopyr herbicides available at retail garden stores contain a lower percentage of herbicide active ingredient than professional products. For example, the professional triclopyr product Garlon 3A is formulated as a 44.4% triclopyr amine, while concentrated triclopyr amine products available at retail garden stores range from 0.8 to 8.8% triclopyr amine. As a result, single treatments with these products may not provide complete control, and multiple treatments may be required.

“Extended control” products and rapid burndown products that work in less than twenty-four hours should be avoided (Table 1). Extended control products contain additional active ingredients that provide lingering control of germinating weeds and are designed for use along sidewalks and driveways. They are not effective for controlling invasive plants. Rapid burndown products that work in less than twenty four hours contain an additional active ingredient that rapidly kills the foliage. While this may be satisfying, it may also reduce root kill and overall effectiveness of control and should be avoided.

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**Table 1. Common glyphosate and triclopyr products available at local retail garden supply stores. Always read and follow the entire herbicide label and recognize that the label is the best indicator of invasive plants that are controlled.**

Product	Main active ingredient (%)	Other active ingredients (%)	Effectiveness as invasive plant foliar treatment <sup>1</sup>	Effectiveness as invasive plant cut stump treatment
Roundup Pro (Concentrate)	Glyphosate (41)	None	Very good	Excellent
Roundup Weed and Grass Killer Super Concentrate	Glyphosate (50.2)	None	Very good	Excellent
Roundup Poison ivy & Tough Brush Killer Plus <u>Concentrate</u>	Glyphosate (18.0)	Triclopyr amine (2.0)	Good	Good
Roundup <u>Ready to Use</u> Poison Ivy & Tough Brush Killer Plus	Glyphosate (1.0)	Triclopyr amine (0.1)	Poor to Fair	NR <sup>2</sup>
Bayer Advanced Brush Killer Plus <u>Concentrate</u>	Triclopyr amine (8.8)	None	Good	Fair
Bayer Advanced Brush Killer Plus <u>Ready to Use</u>	Triclopyr amine (0.8)	None	Fair	NR
Ortho Max Poison Ivy and tough brush Killer <u>Concentrate</u>	Triclopyr amine (8.0)	None	Good	Fair
Ortho Max Poison Ivy and Tough Brush Killer Concentrate <u>RTU</u>	Triclopyr amine (0.7)	None	Fair	NR
Roundup <u>Ready to Use</u> Extended Control Weed and Grass Killer Plus Weed Preventer	Glyphosate (1)	Imazapic (0.017) Pelargonic acid (2.0)	NR	NR
Roundup <u>Concentrate</u> Extended Control Weed and Grass Killer Plus Weed Preventer	Glyphosate (18.0)	Imazapic (0.3) Diquat (0.73)	NR	NR
Roundup Weed and Grass Killer <u>Ready to Use PLUS</u>	Glyphosate (2.0)	Pelargonic acid (2.0)	NR	NR
Roundup Weed and Grass Killer <u>Concentrate Plus</u>	Glyphosate (18.0)	Diquat (0.73)	NR	NR

<sup>1</sup>Rating scale is Excellent, Very good, good, fair, and poor.

<sup>2</sup>NR = Not recommended

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**Questions?** Contact your local Alabama Cooperative Extension Office. [www.aces.edu](http://www.aces.edu)