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Trumpetcreeper Control

Trumpetcreeper (*Campsis radicans*) is a native perennial vine that is often found climbing fences, electric wire or telephone poles and, on occasion, running along the ground when there is nothing to climb. Its common name is appropriate because its most distinguishing characteristic is its bright orange trumpet-like flower. The accompanying picture shows Japanese beetles enjoying a smorgasbord of trumpetcreeper flower (Figure 1). Trumpetcreeper vines can reach a length of up to 40 feet, and leaves are oppositely arranged on the stems, with oppositely arranged leaflets in a pinnately compound leaf. Each leaf can have seven to 15 leaflets and each trumpetcreeper flower can produce a long pod¹.



Japanese beetles feeding on trumpetcreeper flowers.
Glenn Nice, Purdue University

Like several other problematic perennials, Canada thistle to name one, trumpetcreeper produces a deep root system that can produce new above ground stems. Although trumpetcreeper can reproduce by seed, it is believed that root stock is the dominate mechanism of proliferation. Root stocks cut 0.8 inches long can produce shoots eight weeks after planting². Stems continue to emerge when root stock is buried up to nine inches deep; however, planting depths from three to nine inches did not have any effect on production of total above ground biomass². To add to the fast spread of trumpetcreeper, it can also root where the stems touch soil. This would add to the ability to fragment into new plants.

For the most part, in Indiana, trumpetcreeper is a weed that sits on the fence or the fringes of our row crops. Occasionally it can invade no-till fields, reducing soybean yield and becoming a nuisance at harvest time. It has been reported that 0.6 plants/yard² can reduce soybean yield 18%³. In a study comparing between shallow and deep tillage, it was reported that there was no significant difference between the two methods within individual years, two out of three

years⁴. However, over a three year period, the treatments that received shallow tillage tended to have 37% increased biomass and in the deep tillage treatments, trumpetcreeper biomass decreased by 26%². Significance of these differences were not investigated across years. Often chemical control is needed to suppress trumpetcreeper growth.

Many of the herbicides labeled for conventional soybean will provide suppression by burning or injuring the above ground portions of the plant. K. Bradley et. al. (2005) conducted research in Virginia with several herbicide treatments. The application of paraquat (Gramoxone Max[®]) before planting soybean followed by a postemergence application of either lactofen (Cobra[®], Pheonix[®]), acifluorfen (Ultra Blazer[®]), fomesafen (Flexstar[®], Reflex[®]), imazamox (Raptor[®]), or cloransulam (FirstRate[®]) failed to decrease trumpetcreeper density⁵.

In an earlier study by Bradley and Hagood (2001), the use of mesotrione (Callisto[®]) in corn postemergence provided a 70% reduction in trumpetcreeper population⁶. The use of dicamba (Banvel[®], Clarity[®]) or dicamba plus mesotrione or pimsulfuron (Beacon[®]) reduced trumpetcreeper population 60% or greater. Also like Canada thistle, controlling the underground portions of this plant is essential to achieve sufficient control. This requires a herbicide that will translocate into the underground portions of the plant.

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Glyphosate is also often used to suppress trumpetcreeper. However, this is not a silver bullet against this plant either. Glyphosate (Roundup Weathermax®, Touchdown®, Glyphomax®, etc) at 0.74 or 1 lb ai/A applied mid-July (Virginia) reduced densities 35 to 30%⁵. The application of glyphosate at 1 lb ae/A (ae stands for "acid equivalent") followed by a second application of 0.75 lb ae/A reduced biomass 89%⁴. The use of split applications was reported to reduce biomass to acceptable amounts, 0.16, 0.14, and 0.06 oz dry weight/yard² in three years, respectively⁴. It might be expected that, left unattended, the trumpetcreeper might return from surviving root stock buried deep, but long term results were not investigated.

Triclopyr plus 2,4-D (Crossbow®) can also be used to suppress/control trumpetcreeper in non-crop, fencerows and grass pastures. The use of 1.5% v/v mixture or a 6 qt/A broadcast rate or 4 qt/A on permanent pastures can provide approximately 60 to 79% control.

Controlling trumpetcreeper can be difficult and often frustrating. Results from using tillage and/or chemical control measures can be inconsistent depending on age of the plants and environmental conditions. Although they appear to feed on trumpetcreeper, I don't believe we can rely on Japanese beetles to control this beautiful but pesky plant for us.

Reference:

- 1) Trumpetcreeper or cow-itch: *Campsis radicans*. Accessed 3/13/06. Virginia Tech Weed Identification Guide. (http://www.ppws.vt.edu/scott/weed_id/cmira.htm).
- 2) Edwards, J.T. and L.R. Oliver. 2004. Emergence and growth of trumpetcreeper (*Campus radicans*) as affected by rootstock size and planting depth. *Weed Technology* 18:816-819.
- 3) Edwards, J.T. and L.R. Oliver. 2001. Interference and control of trumpetcreeper (*Campsis radicans*) in soybean. *Proceedings of the Southern Weed Science Society* 54:130-131.
- 4) Reddy, K.N. 2005. Deep tillage and glyphosate-reduced redvine (*Brunnichia ovata*) and trumpetcreeper (*Campsis radicans*) populations in glyphosate-resistant soybean. *Weed Technology* 19:713-718.
- 5) K.W. Bradley, E.S. Hagood, Jr., P.H. Davis. 2004. Trumpetcreeper (*Campsis radicans*) control in double-crop glyphosate-resistant soybean with glyphosate and conventional herbicide systems. *Weed Technology* 18:298-303.
- 6) K.W. Bradley and E.S. Hagood, Jr. Posted 2001, accessed 3/13/06. Identification and Control of Trumpetcreeper (*Campsis radicans* (L.) Seem ex Bureau) in Virginia. Virginia Cooperative Extension. (<http://www.ext.vt.edu/pubs/weeds/450-143/450-143.html>).

Information listed here is based on research and outreach extension programming at Purdue University and elsewhere.

The use of trade names is for clarity to readers of this site, does not imply endorsement of a particular brand nor does exclusion imply non-approval. Always consult the herbicide label for the most current and update precautions and restrictions. Copies, reproductions, or transcriptions of this document or its information must bear the statement 'Produced and prepared by Purdue University Extension Weed Science' unless approval is given by the author.



Trumpetcreeper pods, Glenn Nice, Purdue University