Weed Notes: *Imperata cylindrica* 'Red Baron' (Japanese Blood Grass)

The Nature Conservancy
Wildland Invasive Species Team

Summary
Imperata cylindrica (family Poaceae) is a perennial rhizomatous grass commonly known as cogongrass or speargrass. It is native to Southeast Asia and is a widespread invader in many subtropical and tropical regions with over 490 million hectares (1.2 billion acres) infested worldwide (Lippencott & McDonald 1996). *Imperata cylindrica* is listed as one of the top ten worst weeds in the world (Holm et al. 1977) and even though it is on the U.S. Federal Noxious Weed List (7CFR, 360.200), the cultivar *I. cylindrica* 'Red Baron' (Japanese blood grass) is excepted. It is undetermined if the 'Red Baron' cultivar will become an ecological threat in natural areas, but it is important that cultivars of known invasive species be clearly demonstrated to be non-invasive before its cultivars are offered for sale. *Imperata cylindrica* 'Red Baron' has not been demonstrated to be non-invasive and this cultivar has already shown some invasive qualities in horticulture settings.

Range in U.S. and Impacts of *I. cylindrica*
Imperata cylindrica was first introduced into North America in Alabama and Mississippi in the early 1900s for forage, erosion control and as packing material. It currently infests several thousand acres in the U.S., primarily in the southeast, and is reported from Alabama, Florida, Hawaii, Louisiana, Mississippi, North Carolina, South Carolina and Oregon (USDA-NRCS 2001), as well as from Texas, Virginia, West Virginia and Maryland (Johnson & Shilling 1998).

Imperata cylindrica has invaded a variety of wildland ecosystems such as desert dunes, wetlands, savannahs and forests, and it can also overtake disturbed areas such as roadsides, surface-mined lands and forestry plantations. In infested areas, *I. cylindrica* forms dense mats of thatch and leaves that shade and outcompete native plants, provides poor habitat and forage for animals, and can even alter fire regimes. For instance, even fire-adapted bunchgrass communities in Florida are subjected to more frequent and intense fires because of *I. cylindrica* fuels (Lippincott 2000).

The Cultivar 'Red Baron'
The 'Red Baron' cultivar of *I. cylindrica* has bright, showy, blood-red leaf edges. It is frequently sold across the U.S. in plant nurseries and is widely available over the Internet for ornamental use. It is often described as being non-invasive, although published proof of this claim is lacking. Sales descriptions may mention that 'Red Baron' can occasionally lose the red color in their leaves over time (blades turn entirely green), becoming invasive (Missouri Botanic Garden 2002). It has been suggested that the red color or pigmentation may be a result of colder temperatures, since plants often revert to the green type when planted in southern regions (such as in Florida) or when grown in warm greenhouses (Floridata 2002).

In colder climates such as in Connecticut, there are no accounts of 'Red Baron' flowering, setting seed, or even becoming established outside of cultivation (D. Ellis, pers. comm.). It also supposedly rarely blooms in ornamental settings. However, since each plant can potentially produce up to 3,000 seeds per season (Holm et al. 1977), it would be prudent to carefully watch

and monitor any planted varieties of *I. cylindrica*. Apparently, seedlings that have been produced by 'Red Baron' cultivars have the usual aggressive characters that make the "wild form" of the species problematic.

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Author: Mandy Tu, The Nature Conservancy's Wildland Invasive Species Team, Dept. of Vegetable Crops & Weed Sciences, University of California at Davis 530-754-8891

Edited: Barry Rice, TNC-WIST

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