

WINEBERRY

Rubus phoenicolasius

INVASIVE SPECIES SERIES | JULY 2020

I
ILLINOIS
Extension

Wineberry

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WINEBERRY (*RUBUS PHOENICOLASIVS*)

Wineberry, also called wine raspberry or Japanese wineberry, is an invasive shrub in the *Rubus* genus (blackberries and raspberries) that can form dense thickets and has the potential to impact native ecosystems. As of 2020, wineberry is not regulated in Illinois, but recent discoveries of new populations in Madison and Jackson counties has prompted an increased concern about this plant's invasive potential in Illinois.

IDENTIFICATION

The growth form of wineberry is a multi-stemmed cane-fruit typical of *Rubus* genus (raspberries and blackberries). Canes usually are 3 to 5 feet in length, but may reach 10 feet tall at times. Canes are covered in dense, glandular hairs (usually reddish) and thin, straight prickles, giving the plant a reddish coloration.

Leaves are compound with 3 to 5 (usually 3) leaflets. The central (terminal) leaflet is larger than the others. Each leaflet is coarsely toothed with a silvery to bright white, wooly underside.

Flowers are greenish-white with five petals and bloom in late spring. The leafy structure below the flower petals (calyx) closes after flowering is complete and covers the developing fruit until it is almost ripe. Fruit are bright red when ripe. As is typical of raspberries, the fruit core remains on the stem with the ripe fruit when picked. The stalk (pedicel) and the calyx of each flower has the same dense covering of reddish hairs as the canes.

Wineberry may be confused with other blackberries and raspberries, but the combination of white, wooly underside of the leaves and the dense glandular hairs on the canes will separate this from the other species.



Wineberry leaves have a white, wooly underside.
Photo: Chris Evans



Dense, red glandular hairs



First-year primocane



Dense hairs with straight prickles

Photos: Chris Evans

ECOLOGY

Canes are biennial with the first-year canes (primocane) being long, unbranched, and sterile (does not form flowers). In their second year, the primocanes developed lateral branching. Flower and fruit production are only on second-year canes (floricanes). While each cane only lives for two years, the plant, itself, is perennial, with new canes produced each year.

Wineberry populations seem to prefer open disturbed sites, such as canopy gaps in forests or old fields. The presence of high light availability and exposed soil seems to be important for initial seedling establishment; however, once established, populations can persist in more closed conditions. Established wineberry populations have been found in a wide variety of site conditions, including growing in relatively heavy shade to full sun, dry soils to seasonally flooded bottomlands, and rocky infertile sites to rich soils.

IMPACTS

In addition to spread via fruit, wineberry can also spread by layering or tip-rooting, where the tips of the canes come into contact with the ground and form roots. This allows wineberry to form dense stands, even in sites with inadequate light availability for fruit production.

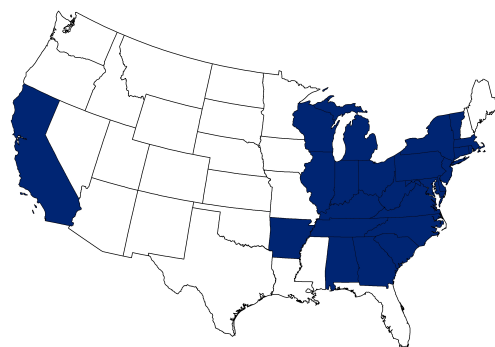
Dense stands in natural ecosystems have the potential to limit tree regeneration and development of the native understory flora.

CONTROL

Few studies have evaluated control strategies, but foliar application of systemic herbicides, such as triclopyr or glyphosate, have been reported to be successful. Hand-pulling has also been reported as a successful strategy for only small individuals.

UNITED STATES DISTRIBUTION

Wineberry was first introduced to the United States in 1890 as breeding stock for other *Rubus* cultivars and has a long history of horticultural and agricultural use. It is still currently sold as a garden plant for fruit production. Wineberry has escaped populations in 24 states, mostly throughout the eastern United States. It is recognized as an invasive species on a formal state list in 16 states, including being regulated or restricted in four states.



WINEBERRY IN THE UNITED STATES

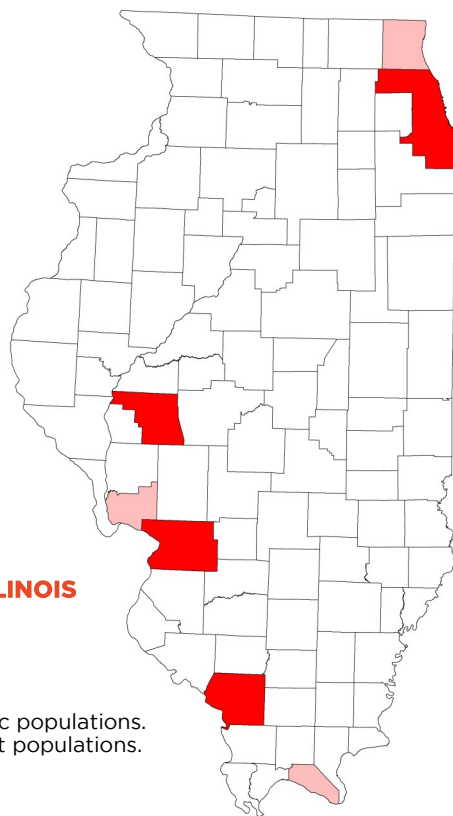
Known populations: Arkansas, Alabama, California, Connecticut, Delaware, Georgia, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, Wisconsin

Listed as Invasive: Connecticut, Delaware, Georgia, Indiana, Kentucky, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, Wisconsin

Regulated Species: Connecticut, Massachusetts, New York, Wisconsin



Wineberry produces a colorful ripe fruit.
Photo: Les Mehrhoff, Bugwood.org



**COUNTY-LEVEL
DISTRIBUTION OF
WINEBERRY IN ILLINOIS
JULY 2020**

Pink indicates historic populations.
Red indicates current populations.

REPORTING NEW POPULATIONS

This is a priority species to watch since several new populations of wineberry have been recently reported in Illinois. Report any suspect populations of wineberry in Illinois by either emailing Illinois Extension Forester Chris Evans (cwevans@illinois.edu) pictures of the suspect population and location information or, preferably, submit a report to the EDDMapS database using an app such as [EDDMapS Pro](#) or the [Great Lakes Early Detection Network](#). Both apps are available at apps.bugwood.org. These apps are free downloads, but you do need to create an account to use them.

WINEBERRY IN ILLINOIS

Herbarium and historic records indicate that wineberry has previously been found escaped in Illinois in Jersey, Lake, Massac, and Morgan counties though the status of those populations is currently unknown. There was an additional record from Morgan County from the botanical data collected during the *Illinois Natural Areas Inventory* update (2008-2012). Two additional recent observations were submitted to *iNaturalist* from Cook County (2016-2018). In 2018, two populations were reported in Madison County and are currently being actively managed. With the addition of a new population reported in 2020 in Jackson County, wineberry is known to exist in seven counties in Illinois.

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