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**An Evaluation Study of Cultivated Knotweeds**

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*Persicaria virginiana*

**Knotweeds are garden-worthy perennials deserving greater attention. Their wider use in gardens and landscapes may be complicated by the thuggish reputations of certain species. Gardeners should avoid planting any of the weedy or invasive knotweeds, whether native or nonnative, and look to one of the many well-mannered species instead. Cultivated knotweeds offer up a variety of flower colors and forms, leaf shapes and sizes, and plant habits from ground-hugging dwarf fleece flower (*Bistorta affinis*) to the shrublike white dragon (*Persicaria polymorpha*).**

Knotweeds are members of the large buckwheat family (Polygonaceae) and have a worldwide distribution. A variety of botanical and common names are associated with knotweeds. In references and in commerce, *Persicaria*, *Polygonum*, *Fallopia*, *Tovara*, *Bistorta*, and *Reynoutria* are all in use. Nomenclatural changes over the years have created confusion for gardeners (see Table 1); the time lag between new botanical names being crafted and accepted and ultimately put into general usage can be protracted. Knotweed, fleece flower, jumpseed, and bistort are common names pertaining to one or more species.



*Bistorta affinis* 'Border Jewel'



*Bistorta affinis* 'Border Jewel'



*Persicaria virginiana*

In summer and fall, white, pink, red, or purple flowers cluster in terminal spikes or sprays. The tiny bisexual flowers are typically densely clustered in chubby bottlebrushes, on slender wiry wands, or in broad panicles. The bright red beadlike blossoms of Virginia knotweed (*Persicaria virginiana*) scattered loosely along delicate threadlike spires are an especially distinctive exception. Seedheads may age to russet, bronze, or coppery tones. Seedheads are ornamental on their own but are also showy among remount flowers late in the season.

Growth forms range from low carpetlike spreaders to large bushy mounds, and are either tap- or fibrous-rooted, and clumping, rhizomatous, or stoloniferous. Leaf shapes may be lanceolate or ovate to hastate or sagittate with long pointed tips. The common name references the swollen stem joint or knot at the base of the leaves. Leaves in shades of green are most common but white-splashed 'Painter's Palette', silver-and-burgundy 'Red Dragon', and radiant-yellow 'Golden Arrow' are colorful novelties. Chevrons mark the leaves of some knotweeds, notably the prominent maroon splotches on chartreuse-leaved 'Lance Corporal' or the mint-green shadows on 'Silver Dragon'.

Knotweeds grow best in consistently moist soils in full sun to partial shade. Light shade is essential in warmer zones but even in the north, Virginia knotweed will appreciate afternoon shade and wind protection. While most species are tolerant of periodically soggy sites, they sulk in dry soils. Crispy leaves are an indication of overly dry conditions, too much direct sunlight, or high temperatures. Divide knotweeds in spring or fall as needed to control size and spread. Aggressively



Amplexicaul leaf on *Bistorta amplexicaulis* 'Taurus'

rhizomatous knotweeds should be used with caution or avoided regardless of their nativity; self-sowing native species such as Virginia knotweed can also become a nuisance under ideal growing conditions. There are few serious diseases or pests of knotweeds, but Japanese beetles can impact the appearance of the foliage.

Knotweeds are versatile perennials in gardens, naturalized meadows, and in mixed containers, whether in mass or as specimen plants. The low profile and spreading habit of *Bistorta affinis* 'Border Jewel' and 'Dimity' make them good choices for massing at the front of a bed, as edging along paths, or fronting shrubs. The hulking size of *Persicaria polymorpha* can be used successfully as a shrub substitute for hedging. At the Chicago Botanic Garden, a stylized meadow of crimson-spined 'Firetail' (*B. amplexicaulis* 'Firetail') nestled in a grassy sea of palm sedge (*Carex muskingumensis*) highlights the bold traits of the knotweed.



*Bistorta affinis* 'Dimity'



*Bistorta amplexicaulis* 'Fire Tail'

## The Evaluation Study

The Chicago Botanic Garden (USDA Hardiness Zone 6a, AHS Plant Heat-Zone 5) evaluated 30 different knotweeds—native and nonnative species—in comparative trials between 2012 and 2022. Taxa included species and cultivars purchased as *Persicaria* spp. or *Polygonum* spp. Knotweed nomenclature is complicated; where possible and for consistency, nomenclature in this report follows the Plants of the World Online and the Royal Horticultural Society Plant Finder. Table 1 shows the accepted botanical names, synonyms, and common names for all taxa in the trial. Beyond assessing each plant using standard comparative criteria, we sought to determine whether cultivated knotweeds are weedy or might be potentially invasive.

Five plants of each taxon were grown in side-by-side plots for easy comparison of ornamental traits and landscape performance. The evaluation garden was openly exposed to wind in all directions and potentially received up to 10 hours of full sun daily during the growing season. The clay-loam soil had a pH of 7.4 during this period, and although typically well-drained, the site occasionally retained excess moisture for short periods in all seasons.

Maintenance practices were kept to a minimum, thereby allowing the plants to thrive or fail under natural conditions. Trial beds were irrigated via overhead sprinklers as needed, mulched with composted leaves once each summer, and regularly weeded. Moreover, plants were not deadheaded, fertilized, winter mulched, or chemically treated for insects or diseases. Plants were cut back in early spring before new growth began.

**Table 1: Accepted nomenclature, synonyms, and common names**

Accepted Plant Names <sup>1</sup>	Synonyms	Common Names
<i>Bistorta affinis</i>	<i>Persicaria affinis</i> , <i>Polygonum affine</i>	dwarf fleece flower
<i>Bistorta amplexicaulis</i>	<i>Persicaria amplexicaulis</i> , <i>Polygonum amplexicaule</i>	mountain knotweed
<i>Bistorta carnea</i>	<i>Persicaria bistorta</i> ssp. <i>carnea</i>	bistort
<i>Bistorta officinalis</i>	<i>Persicaria bistorta</i> , <i>Polygonum bistorta</i>	meadow bistort
<i>Koenigia weyrichii</i>	<i>Persicaria weyrichii</i> , <i>Polygonum weyrichii</i>	Weyrich's knotweed, Chinese knotweed
<i>Persicaria filiformis</i>	<i>Polygonum virginianum</i> var. <i>filiformis</i>	Asian jumpseed
<i>Persicaria microcephala</i>	<i>Polygonum microcephalum</i>	small-headed fleece flower
<i>Persicaria polymorpha</i> *	<i>Polygonum polymorphum</i>	white dragon, giant fleece flower
<i>Persicaria runcinata</i>	<i>Polygonum runcinatum</i>	lobed leaf knotweed
<i>Persicaria virginiana</i>	<i>Polygonum virginianum</i> , <i>Tovara virginiana</i>	Virginia knotweed, jumpseed
<i>Reynoutria japonica</i>	<i>Polygonum cuspidatum</i> , <i>Fallopia japonica</i>	Japanese knotweed

<sup>1</sup>Accepted plant names per Plant of the World Online (Royal Botanic Gardens Kew) and Online Plant Finder (Royal Horticultural Society).

\*Unresolved nomenclature



*Reynoutria japonica* 'Devon Cream'

## Japanese knotweed

The rampant nature of Japanese knotweed is well-documented and its status as a noxious weed is generally recognized worldwide. Japanese knotweed has escaped or naturalized in all but nine states and in much of Canada and is considered the most pernicious weed in England. So, why undertake a study to determine if it has invasive tendencies? It was not the weedy nature of Japanese knotweed that precipitated the study, but rather the concern that related knotweed species were unfairly compared to it. Japanese knotweed in its wild form was not included in the trial, although commercial sources were surveyed to see if it was offered for sale. No commercial sources were found; however, three cultivars and one natural variety of Japanese knotweed were purchased from mail order nurseries.

Japanese knotweed (*Reynoutria japonica*, synonyms *Polygonum cuspidatum*, *Fallopia japonica*) is an upright shrubby perennial with stout bamboolike stems to 15 feet tall. The green leaves—to 6 inches long—are broadly egg-shaped with pointed tips. Sprays of white flowers crown plants in late summer. As commanding as the plant is above ground, what's happening underground is startling. A vast network of thick rhizomes can travel up to 60 feet from a plant's nexus. Japanese knotweed spreads rapidly, forming dense thickets that shade and crowd out native plants, thus threatening natural ecosystems, species diversity, and wildlife habitat. Once established, Japanese knotweed is persistent and difficult to eradicate—shoots can sprout from small rhizome fragments buried up to several feet deep and can punch through asphalt.

Seed dispersal by wind, water, animals, humans, or in soil is cited as a primary mode of spreading Japanese knotweed, yet some references report that seeds are produced but rarely viable. In our trial, weedy or potential invasiveness was measured by the vigorous rhizomatous habits rather than seedlings, which were not observed in or around the plots. Although our study did not confirm seed viability, the invasive status of Japanese knotweed over much of the continent dictates an abundance of caution. While listed as cold-hardy to USDA Zone 5, the fact that it has naturalized in northern tier states, Alaska, and most Canadian provinces implies its adaptability to extreme climates.

During the planning process, no commercial sources were discovered for Japanese knotweed and mail order sources for related varieties and cultivars were scarce. The trial group included *Reynoutria japonica* var. *compacta*, *R. japonica* var. *compacta* 'Variegata', *R. japonica* 'Crimson Beauty', and *R. japonica* 'Devon Cream'. All plants were vigorous but remained in their given space for several years before significant movement was noted. 'Devon Cream' was the most aggressive selection, spreading over 20 feet in all directions and into the turf by the fourth year. At the same time, green-leaved reversions began overgrowing its taupe-speckled variegation, resulting in greater plant vigor and increased flower production. Upon completion of the trial, plants and rhizomes were dug out manually in spring and the site was kept under close observation for any resprouting, which was minimal that year. Sprouts were promptly removed when discovered the following year; no stems emerged in subsequent years. Japanese knotweed and related selections are on the Chicago Botanic Garden's Invasive Plant List ([chicagobotanic.org/research/invasive\\_species](http://chicagobotanic.org/research/invasive_species)).

## The Evaluation Report

Throughout the trial, all knotweeds were observed regularly and appraised for their cultural adaptability to the soil and environmental conditions of the full-sun evaluation garden; susceptibility to diseases and pests; winter hardiness and survivability; and ornamental qualities associated with flowers, foliage, and plant habits. In addition, plants were closely monitored for any reseeding and for rhizome or stolon vigor. Final performance ratings for 26 of the 30 taxa evaluated are shown in Table 2; final ratings are based on foliage and habit quality, flower production and floral display quality, plant health and vigor, and winter survivability. Most taxa were evaluated for a minimum of four years, except for *Bistorta amplexicaulis* 'Blackfield', *B. amplexicaulis* 'Inverleith', *Persicaria microcephala* 'Red Dragon', *P. runcinata* 'Purple Fantasy', *P. filliformis* 'Compton's Form', and *Koenigia weyrichii*, which lived for less than four years each. The four Japanese knotweed selections in the trial were not rated for their garden performance as they are not recommended for landscape use (see Japanese knotweed sidebar).

## Top-rated Knotweeds

Three knotweeds earned five-star excellent ratings for their consistently healthy and robust habits, superior floral displays, and winter hardiness. Nine additional taxa earned four-star good ratings.

*Bistorta amplexicaulis*, mountain knotweed, has a rounded clumping habit and features ovate to lanceolate leaves with acuminate or sharply tapered tips to 6 inches long. The slightly puckered leaves are amplexicaul, which means they clasp the stems at the base.



*Bistorta amplexicaulis*  
'Summer Dance'



*Bistorta amplexicaulis* 'Rosea'



*Persicaria polymorpha*

Dense floral spikes in shades of red, pink, purple, or white top plants from summer to fall. Interestingly, the flowers of mountain knotweed do not open in logical patterns—from top to bottom (basipetally) or base to apex (acropetally)—instead, opening randomly and often at the middle of the inflorescence first. 'Summer Dance' embodied all the best attributes of the species and was the standard whereby other cultivars were judged. A profusion of uniquely bright coral-red flowers on slender spikes—their closest color match was 'Firetail'—bloomed above lime-green leaves for three months. 'Summer Dance' was the largest—58 inches tall and 60 inches wide—and most vigorous of the mountain knotweeds in the trial and did not suffer any winter losses.

The pale pink flowers of long-blooming *Bistorta amplexicaulis* 'Rosea' towered generously above dark green leaves from mid-July to late September. While the flower show was exceptional, our evaluators did not find the soft pink as satisfying as the vivid colors of 'Firetail' or 'Summer Dance'. The tiny flowers opened randomly along tapered spikes up to 7 inches long and were busy with bees for many weeks. Stout 'Rosea' formed big, bushy mounds reaching 55 inches tall and 58 inches wide by the end of summer. 'Rosea' was fully winter-hardy, and like other mountain knotweeds, it did not have an aggressive or weedy habit.



Color reversion on *Reynoutria japonica* 'Devon Cream'



*Persicaria virginiana* 'Painter's Palette'



*Persicaria polymorpha*

White dragon or giant fleece flower, ***Persicaria polymorpha***, was a boldly robust but mild-mannered knotweed. It had the vigor and stature of Japanese knotweed but with a distinctly clumping growth form. White dragon's shrubby habit, to 6 feet tall and almost 7 feet wide, remained upright and attractive all summer. Tiny white blossoms clustered in large frothy plumes opened in late May and bloomed for much of the summer. Floral fragrance was described as a light, pleasant scent or a disagreeable odor depending on the evaluator. Flowers aged to pinky red seedheads. Minor cosmetic damage from Japanese beetles was observed on the lance-shaped, dark green leaves in multiple years, but no winter injury was noted.

#### Evaluation Details

Flower displays were generally effective, with varied floral habits and production levels among the different knotweeds. The stubby spiked inflorescences of *Bistorta affinis* and *B. officinalis* were densely crowded with small flowers. Their cultivars were in shades of pink, which aged to darker tones before finally turning burnt orange. The inflorescences ranged from 3 to 4 inches long and less than an inch wide; *B. affinis* 'Dimity' was the narrowest at  $\frac{5}{8}$  inch wide and *B. officinalis* 'Superba' the widest at  $\frac{7}{8}$  inch. Due to the long bloom



*Bistorta amplexicaulis* 'Fire Tail'



*Bistorta carnea*



*Bistorta amplexicaulis* 'Rosea'

period—May to October—all floral and color stages were present concurrently. The floral spikes of *B. amplexicaulis* by contrast were longer and narrower at 4 to 7 inches long and ½ inch wide. The inflorescence sizes noted in Table 2 were measured at the point when the color show—a mix of buds and open flowers—was at its best, approximately three weeks after the first flowers opened. Pollinators were commonly observed during the bloom period and bees were particularly heavy feeders on all the *B. amplexicaulis* cultivars.

At 14 inches long, the panicles of *Persicaria polymorpha* were the largest inflorescences in the trial. Beginning in late May, the white flowers were enhanced by light reddish floral stems. Flowers aged tannish and due to their size and quantity, eventually detracted from the overall ornamental quality before the bloom period ended. The spikes of the *P. virginiana* cultivars were only slightly shorter than *P. polymorpha* but were thread-like by comparison to its broad plumes. The foot-long inflorescences looked like slender whips with the individual flowers spaced widely apart on the floral axis. The small flower sprays of *P. microcephala* differed greatly from other knotweeds in the trial. Unlike the generous flower production observed on most taxa, the tiny white baby's-breath-like flowers were sparsely produced each year. Knotweeds do not display a traditional peak bloom stage like many other perennials, because the flowers open randomly on an inflorescence, and flowering is protracted due to continual production of new inflorescences.

Leaves in shades of green were typical, but several cultivars featured colorful markings or variegation. A few green-leaved taxa took on ruddy tones or became red-spotted in the hotter periods of the summer. The leaf tips of *Bistorta affinis* including 'Border Jewel' and 'Dimity' regularly turned red in summer; their foliage was semi-evergreen in mild winters. Additionally, *B. carnea*, *B. officinalis* 'Superba', and *Koenigia weyrichii* also displayed red leaf tips beginning in July.

The cultivars of *B. amplexicaulis* commonly exhibited red spots during the summer months; spotting was considered a minor cosmetic issue overall.

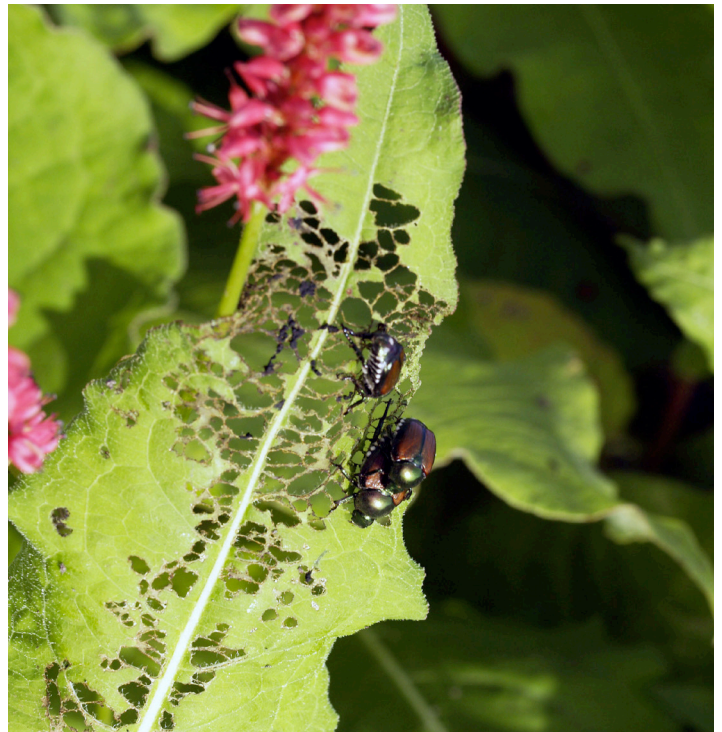
The vibrant yellow leaves of *Bistorta amplexicaulis* 'Golden Arrow' lightened to yellow-green as summer went on. Sunscald, noted periodically during hot and/or dry periods, caused burnt or bleached out leaves that eventually turned brown. Chevron markings were prominent on the leaves of *Persicaria microcephala*, *P. virginiana*, and *P. filiformis*. The tricolored leaves of *P. microcephala* 'Red Dragon' started out purple-brown with a silvery chevron and aged to green with purple and silvery markings. *Persicaria* 'Silver Dragon' had a



*Bistorta amplexicaulis* 'Golden Arrow'



Chevron markings on *Persicaria virginiana*



Japanese beetles on *Bistorta amplexicaulis* 'Summer Dance'

similar look, but its multi colored leaves were silvery green with ruddy edges and a pale chevron bordering a reddish blotch. The green leaves of *P. runcinata* 'Purple Fantasy' were highlighted by dark purple chevrons with a pale nimbus. Reddish brown to maroon chevrons were prominent on *P. filiformis* and *P. virginiana*. *Persicaria filiformis* 'Compton's Form' featured a silvery overlay with a large chocolate chevron; 'Lance Corporal' had light green leaves with a pronounced deep maroon chevron; and the cream-and-yellow-splashed green leaves of 'Painter's Palette' had red-brown chevrons.

Plant habits were generally clump-forming with variable sizes and vigorousness observed. Weakened habits attributed to competition from adjacent plants were reported on several taxa including *Bistorta amplexicaulis* 'Alba', *Persicaria* 'Pink Elephant', *P. virginiana* 'Painter's Palette', *P. filiformis* 'Compton's Form', *P. filiformis* 'Lance Corporal', and *Koenigia weyrichii*. Stoloniferous or rhizomatous knotweeds included *B. affinis*, *B. carnea*, *B. officinalis* and their related cultivars. None of the spreading knotweeds caused problems with neighboring plants, other than intermingling along their common edges. Reseeding was observed on *P. virginiana* and *P. filiformis* 'Lance Corporal', with the latter noted as reseeding excessively. *Persicaria microcephala* 'Red Dragon', *P. runcinata* 'Purple Fantasy', and *P. 'Silver Dragon'* were occasionally presumed dead because they emerged in June, much later than other species. The foliar mounds of taxa with long-stalked inflorescences ranged from 6 to 8 inches tall (*B. affinis*), 15 – 30 inches tall (*P. virginiana* and *P. filiformis*), and 24 – 42 inches tall (*B. amplexicaulis*). Plant heights with inflorescences are shown in Table 2.

No diseases were observed during the trial period, but Japanese beetles were occasional pests—foliar damage was mainly a minor cosmetic nuisance. Japanese beetle damage was observed in one or more years on *Bistorta amplexicaulis* cultivars—'Alba', 'Atrosanguineum', 'Firetail', 'Golden Arrow', 'Rosea', and 'Summer Dance'; *B. carnea*; *B. officinalis* 'Superba'; *Persicaria* 'Pink Elephant'; *P. virginiana*; and *P. filiformis* cultivars—'Compton's Form' and 'Lance Corporal'. Minor rabbit and deer browsing was randomly observed; repeated browsing in the same season was not noted on any taxon.

While most knotweeds in the trial are listed as cold-hardy to USDA Hardiness Zones 4 or 5, *Persicaria microcephala* is rated for Zone 6 and warmer. The lack of success with *P. microcephala* 'Red Dragon' was likely a cold temperature issue; it was replanted once, and plants did not survive the winters of 2012 – 13 and 2014 – 15. Of the *Bistorta amplexicaulis* group, 'Inverleith' was an anomaly because it did not survive a winter whereas other cultivars did. 'Inverleith' was replanted twice in different locations within the trial garden; subzero temperatures were recorded in each winter when losses occurred: -16°F in 2013 – 14, -4°F in 2015 – 16, and -5°F in 2017 – 18. Despite an expectation of cold-hardiness, several taxa suffered crown injury and/or plant losses in multiple years including *Persicaria* 'Pink Elephant', *P. 'Silver Dragon'*, *P. virginiana*, *P. virginiana* 'Painter's Palette', and *P. filiformis* 'Compton's Form' and 'Lance Corporal'. Crown loss was noted in most winters on the *affinis*-group, but 'Border Jewel' and 'Dimity' rejuvenated more quickly from crown injury than the species.



*Bistorta amplexicaulis* 'Taurus'



*Bistorta amplexicaulis* 'Rosea'

Competition from neighboring plants likely played a part in crown injury and plant losses observed on *Persicaria virginiana*, *P. filiformis*, and their associated cultivars. Although injury and losses were noted following winter, the affected plants had been significantly encroached upon in the preceding year by *Reynoutria japonica* 'Devon Cream' and *R. japonica* var. *compacta*, both of which were vigorously rhizomatous. With rigorous attention to removing errant shoots of the Japanese knotweeds after the initial trial years, the Virginia knotweeds and Asian jumpseeds recovered their vigor, and crown injury was not observed after the winter of 2014 – 15. The exception was *P. filiformis* 'Compton's Form', which died out completely in winter 2014 – 15. Late frost damage to leaves was

only ever observed in mid-May 2016 on *Bistorta amplexicaulis* 'Alba' (40%), *B. amplexicaulis* 'Rosea' (10%), *P. polymorpha* (10%), and *P. virginiana* (30%).

### Summary

As garden plants, many knotweeds exhibit superior ornamental traits in both flowers and foliage and in habits both large and small. Some species are exuberant in scale but regrettably get lumped in with the pernicious Japanese knotweed. Our trial looked to prove that not all knotweeds share the undesirable traits that can lead to weediness or more devastatingly, to invasiveness.



*Bistorta officinalis* 'Superba'



*Bistorta amplexicaulis* 'Summer Dance'

The Chicago Botanic Garden trialed 30 different taxa representing cultivated knotweeds such as dwarf fleece flower, giant knotweed, and Virginia knotweed as well as several taxa of Japanese knotweed. Three taxa—*Bistorta amplexicaulis* 'Rosea', *B. amplexicaulis* 'Summer Dance', and *Persicaria polymorpha*—received five-star excellent ratings for their strong garden performances and superior ornamental traits. Additionally, nine taxa received good ratings for their adaptability to the growing conditions of the site, disease and pest resistance, winter survivability, and ornamental qualities of flowers, foliage, and habits.

Despite some reseeding and the spreading nature of certain species—excluding Japanese knotweed—the knotweeds that received final ratings did not exhibit weedy or invasive traits that worried us. Our results will not allay the concerns of all gardeners, and gardeners should consider the growing conditions and climate in their region before selecting any knotweeds for cultivation. The top-rated knotweeds from our trial are recommended for their attractive foliage—chevron-etched or otherwise—plentiful and colorful inflorescences, and a diversity

of plant habits and sizes that complement a myriad of other garden perennials. In mixed borders, perennial beds, and grassy meadows, knotweeds provide color, structure, and texture from summer through fall.

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**Table 2: Observed plant traits and performance ratings**

Overall Rating <sup>1</sup>	Taxon	Flower Color	Inflorescence Size <sup>2</sup>	Flower Production <sup>3</sup>	Bloom Period	Plant Height <sup>4</sup>	Plant Width
★★	<i>Bistorta affinis</i>	light pink	4 inches	fair	late June to mid-September	18 inches	34 inches
★★★★	<i>B. affinis</i> 'Border Jewel'	pink	3 inches	good	late May to early October	18 inches	36 inches
★★★★	<i>B. affinis</i> 'Dimity'	soft pink	3½ inches	good	late May to early October	16 inches	40 inches
★★★★	<i>B. amplexicaulis</i> 'Alba'	white	5½ inches	good	late July to early October	45 inches	48 inches
★★★★	<i>B. amplexicaulis</i> 'Atrosanguinea'	magenta-pink	4 inches	excellent	late June to early October	46 inches	50 inches
★★	<i>B. amplexicaulis</i> 'Blackfield'	dark purple-red	4 inches	good	early July to early October	30 inches	34 inches
★★★★	<i>B. amplexicaulis</i> 'Blotau' TAURUS™	red	4 inches	fair	late June to mid-September	36 inches.	48 inches
★★★★	<i>B. amplexicaulis</i> 'Fat Domino'	orangey purple	4 inches	good	early July to early October	34 inches	36 inches
★★★★	<i>B. amplexicaulis</i> 'Firetail'	crimson	5 inches	excellent	late June to early October	48 inches	50 inches
★★★★	<i>B. amplexicaulis</i> 'Golden Arrow'	bright rose-pink	4 inches	excellent	early July to early October	26 inches	42 inches
★	<i>B. amplexicaulis</i> 'Inverleith'			did not flower		24 inches	28 inches
★★★★	<i>B. amplexicaulis</i> 'Orangofield' ORANGE FIELD™	orangey red	5 inches	good	late July to early October	34 inches	38 inches
★★★★★	<i>B. amplexicaulis</i> 'Rosea'	pale pink	7 inches	excellent	mid-July to late September	55 inches	58 inches
★★★★★	<i>B. amplexicaulis</i> 'Summer Dance'	bright coral-red	4½ inches	excellent	early July to early October	58 inches	60 inches
★★★★	<i>B. carnea</i>	light pink	3 inches	excellent	late May to late September	26 inches	30 inches
★★★★★	<i>B. officinalis</i> 'Superba'	soft pink	3 inches	excellent	mid-May to mid-September	33 inches	46 inches
★★	<i>Koenigia weyrichii</i>	creamy white	6 inches	poor	late May to late July	32 inches	38 inches
★★	<i>Persicaria filiformis</i> 'Compton's Form'	bright pink	10 inches	excellent	early October to late October	36 inches	34 inches
★★★★	<i>P. filiformis</i> 'Lance Corporal'	red	12 inches	excellent	mid-September to late October	40 inches	48 inches
★	<i>P. microcephala</i> 'Red Dragon'	white	1½ inches	poor	mid-August to late September	24 inches	60 inches
★★	<i>P. 'Pink Elephant'</i>	pink	5 inches	fair	early July to early October	25 inches	36 inches
★★★★★	<i>P. polymorpha</i>	white	14 inches	excellent	late May to early September	72 inches	80 inches
★★	<i>P. runcinata</i> 'Purple Fantasy'	white	½ inch	poor	mid-August to late September	18 inches	54 inches
★★	<i>P. 'Silver Dragon'</i>	white	1 inches	poor	mid-July to late September	17 inches	35 inches
★★★★★	<i>P. virginiana</i>	red	12 inches	excellent	early September to mid-October	42 inches	48 inches
★★★★★	<i>P. virginiana</i> 'Painter's Palette'	red	13 inches	excellent	early September to mid-October	36 inches	44 inches

<sup>1</sup> Overall Ratings: ★★★★★ excellent, ★★★★ good, ★★★ fair, ★★ poor, ★ very poor

<sup>2</sup> Inflorescence Size: length of inflorescence, not individual flower size

<sup>3</sup> Flower Production: excellent 80-100%; good 60-79%; fair 40-59%; poor 20-39%; very poor <20%

<sup>4</sup> Plant Height: stem height with flowers



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