

Plant Evaluation News

A Comparative Study of Cultivated *Stachys*

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Soft silvery leaves and a low, spreading habit are desirable traits of lamb's ears (*Stachys byzantina*) that contribute to its popularity in gardens everywhere. *Stachys* commonly have crenate (scalloped) leaf margins.

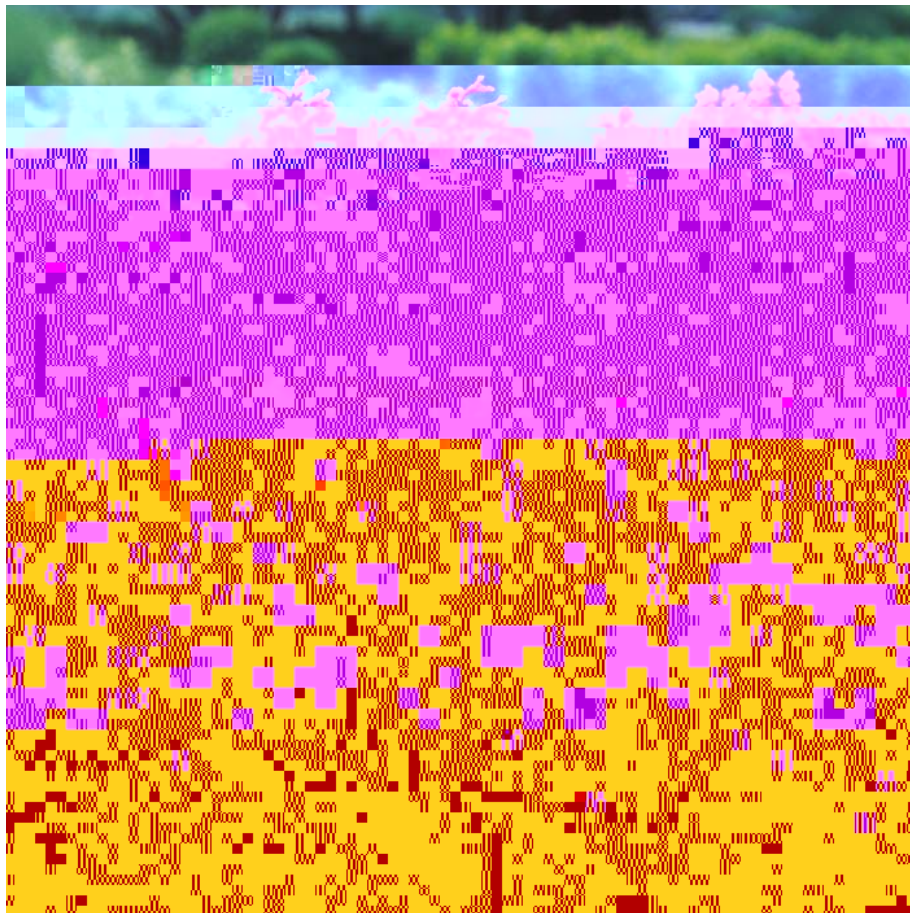
Stachys are generally easy-to-grow perennials for moist, well-drained soils in full sun to light shade. Good drainage in summer and winter is essential for the

health and longevity of *Stachys* and other woolly-leaved species. Their pubescent leaves can trap moisture from high humidity, excessive rain or overhead irrigation causing foliar rot or meltout. The health of lamb's ears tends to decline during flowering, but deadheading regenerates leaves and improves plant vigor.

Lamb's ears is a great plant for edging beds and softening walks, or massed as a ground cover, or as an accent in the border

and rock garden. Its silvery foliage is a foil for plants with bright blossoms. Conversely, it adds a casual formality to the cottage garden or meadow. Purple spikes stand like sentinels in a midsummer garden.

SOFT SILVERY LEAVES AND A LOW, SPREADING HABIT ARE DESIRABLE TRAITS OF LAMB'S EARS (*STACHYS BYZANTINA*) THAT CONTRIBUTE TO ITS POPULARITY IN GARDENS EVERYWHERE.



Richard Hawke

Stachys macrantha 'Superba'

The Evaluation Study

The Chicago Botanic Garden (USDA Hardiness Zone 5b, AHS Plant Heat-Zone 5) evaluated 22 taxa of *Stachys* from 1998 through 2004. The goal of the comparative trial was to identify outstanding *Stachys* through an assessment of their ornamental traits, disease and pest resistance, cultural adaptability and winter hardiness.

All plants were grown in side-by-side plots for easy comparison. The evaluation site received approximately 10 hours of full sun during the growing season and was openly exposed to wind in all directions. The well-drained, clay-loam soil was amended with composted leaves and had a pH of 7.4 throughout the evaluation term.

Maintenance practices were kept to a minimum to simulate home garden culture.

Water was provided as needed and no fertilizer was applied. The spent flowers of *Stachys byzantina* were regularly removed;

each year of the trial but did not thrive in the test garden.

Overall, the green-leaved betonies got high marks for floral display, plant health and robust habits, with *Stachys monieri* 'Hummelo' receiving the top rating. Unlike *S. byzantina*, flower production was an important trait in determining final ratings for this group. *Stachys macrantha* 'Robusta' and 'Superba' had darker purple flowers and were more robust than the species. These cultivars were similar in appearance but 'Superba' was 6 inches taller and bloomed a week later than 'Robusta'. Their dark green leaves remained healthy and ornamental throughout the summer. *Stachys macrantha* received a fair rating because of low flower production and a weak habit. *Stachys macrantha* is similar to *S. officinalis* and *S. monieri* in general appearance but is bolder-textured due to larger leaves and flowers.

Consistently heavy flower production, healthy foliage and a uniform habit contributed to the excellent rating for *Stachys monieri* 'Hummelo'. 'Hummelo' looked much like *S. officinalis* in leaf and habit but had a different flower color and a slightly more compact flower head. *Stachys monieri* 'Saharan Pink' was grown from seed, so variations in flower color and habit were observed among the plants. *Stachys monieri* and 'Saharan Pink' were inferior to 'Hummelo' due to low flower production and variable habits and plant sizes.

Stachys officinalis is reminiscent of *S. macrantha* but has narrower leaves and smaller flowers in dense clusters. 'Alba' and 'Rosea' were comparable in habit, plant size and flower production to the species, although 'Rosea' typically produced fewer

flowers. 'Dwarf White' received good ratings in the first few years of the trial, but diminishing plant vigor over the course of the trial eventually resulted in a lower rating. *Stachys minor* and *S. maxima* were the same plant in the trial and are likely only compact selections of *S. officinalis*. *Stachys minor* is listed as a variety of *S. monieri* in the *RHS Plant Finder* but no reference was found for *S. maxima*. Despite their uncertain identity, both species were exceptionally floriferous plants with compact habits.

There was no consistent pattern of winter injury noted in the trial, except for *Stachys byzantina* 'Primrose Heron', which suffered crown damage each winter between 1999 and 2004. The other lamb's ears with crown damage in more than one year were 'Big Ears' (1999, 2003), 'Cotton Boll' (1999, 2003) and 'Silver Carpet' (1999-2001, 2003). Even with minor losses from excessive winter soil moisture, all of the cultivars of *S. byzantina* grew well, including 'Primrose Heron'. Each spring 'Big Ears' recovered quickly from winter injury to make a full ground cover; whereas, the other cultivars were slower to regenerate, sometimes resulting in open plots into midsummer.

Plant health was generally good for all taxa, but occasional health issues included minor chlorosis in one or more years on *Stachys macrantha* and *S. macrantha* 'Robusta'; and crown meltout caused by excessive moisture in the plots of *S. byzantina*, *S. byzantina* 'Cotton Boll' and *S. thirkei* during the summers of 1999 and 2000.

Stachys byzantina was regularly deadheaded during its bloom period because the heavy flower production caused a

moderate to severe decline in plant health. Deadheading improved health and encouraged foliar regeneration. The green-leaved taxa were deadheaded every other year to determine their repeat flowering capacity; that is, whether removing spent flowers played a role in generating a second bloom. The degree of repeat flowering was shown to be unaffected by whether or not plants were deadheaded. Repeat-flowering taxa are noted in Table 1.

A proliferation of seedlings was observed in the test plots of the following taxa in one or more years: *S. officinalis*, *S. officinalis* 'Alba', *S. officinalis* 'Dwarf White',

sages (*Salvia*) and hyssops (*Agastache*). The fuzzy flowers of lamb's ears add textural interest, but deadheading is recommended to maintain plant health and regenerate leaves. Selecting a nonflowering cultivar such as 'Big Ears' or 'Silver Carpet' will reduce maintenance too. Deadheading betonies eliminates self-seeding, which may ultimately crowd out the original plants.

Lamb's ears and betonies are stalwart perennials with outstanding ornamental features for a variety of gardens. Silvery lamb's ears complement an array of other colorful perennials as well as small roses such as 'The Fairy' or Carefree Wonder ('Meipitac') while its rambling habit softens the hard edges of patios and walks. The purple spikes of betony rise above handsome foliage and draw attention to their distinctive charm in perennial borders, meadows and herb gardens alike.

References

Armitage, A.M. 1997.

