

# KEY TO CULTIVATED SPECIES OF ASTILBE by

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This key breaks out the species, hybrids, and categories of similar cultivars more completely than elsewhere. While some horticulturalists are content to refer everything to *A. x arendsii* or *Astilbe* (Arendsii Group) there are many garden plants related to just a single species. However the species that some introducers pick may not be the correct one! Using botanical standards for species definition a number of the well-defined species and wild varieties can be clearly separated. I have also attempted to explain the influences of various species upon hybrids with a particular combination of traits.

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- 1. Leaves compound - Petals absent - 5 stamens.....UNCOMMON...2
  - 1. Leaves compound - Petals present - 10 stamens.....COMMON.....5
  - 1. Leaves simple - Petals present - 10 stamens.....COMMON.....3

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2. POSSIBLE ID=*Astilbe rivularis*. The flowers are greenish white on huge plants 4-6 ft. tall. There is some ornamental color from the white to pale pink calyx.

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3. POSSIBLE ID=*Astilbe simplicifolia* and selections like 'Sprite'.

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- 5. Petals pink to purple and red - Inflorescence with long curled, hairs...20
  - 5. Petals pink - Inflorescence with short, glandular hairs.....42
  - 5. Petals white - Inflorescence with long, curled hairs.....6
  - 5. Petals white - Inflorescence with short, glandular hairs.....10

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- 6. Inflorescence open, branchlets spreading to horizontal....7
  - 6. Inflorescence dense, branchlets erect.....8

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7. POSSIBLE ID=*Astilbe koreana* and hybrids of it. The buds of this species are pinkish but they open creamy white.

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8. POSSIBLE ID=*Astilbe x arendsii* and its many hybrids. Some authors use the name *Astilbe* (Arendsii Group) rather than the long-used botanical version, partly because the hybrid parentage is not known and includes a mix of several species.

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- 10. Leaf base cunate or wedge-shaped.....11
- 10. Leaf base rotund (rounded) to cordate....15

NOTE: "Leaf Base" applies to the entire leaf and not individual leaflets.

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- 11. Plants 20-40cm tall - Calyx often pinkish - Leaves always glossy....12
  - 11. Plants 40-90cm tall - Calyx greenish - Leaves dull or glossy.....13
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12. POSSIBLE ID=*Astilbe japonica* var. *glaberrima*.

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13. POSSIBLE ID=*Astilbe japonica* var. *japonica*

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- 15. Leaflets doubly serrate (toothed) - Stamens shorter than petals - Plants 50-80cm tall.....COMMON....17
  - 15. Leaflets singly serrate (toothed) - Stamens longer than petals - Plants 70-150cm tall....UNCOMMON...16
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16. POSSIBLE ID=*Astilbe grandis*. The species is often very pubescent with soft downy hairs. It is not widely seen in North American gardens.

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- 17. Leaflet apex mostly acute - Petals 5-7mm wide.....18
  - 17. Leaflet apex long acuminate - Petals 3-4mm wide....19
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18. POSSIBLE ID=*Astilbe thunbergii* var. *formosa*

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19. POSSIBLE ID=*Astilbe thunbergii* var. *thunbergii* and hybrids. The group *A. x lemoinei* is derived from it in a cross with *A. astilboides*.

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- 20. Leaf base cuneate (wedge-shaped) - Inflorescence open.....LESS COMMON.....40
  - 20. Leaf base rotund (rounded) or cordate - Inflorescence open.....COMMON.....25
  - 20. Leaf base rotund (rounded) or cordate - Inflorescence dense....COMMON.....22
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NOTE: "Leaf Base" applies to the entire leaf and not individual leaflets.

NOTE: "Inflorescence dense" may refer to the entire structure or to lateral branchlets which are finger-like. "Inflorescence open" is distinctly airy and often wider than tall. Intermediates do occur so exploring both choices is not a bad idea.

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22. Plants blooming late summer to fall - Stems and leaves often bronze to purple...23

22. Plants blooming in summer - Stems and leaves often bronze to purple.....23  
22. Plants blooming in summer - Stems and leaves green.....24
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23. POSSIBLE ID=*Astilbe chinensis* var. *taquetii* and hybrids of it under *A. x arendsii*. Some have disputed the validity of var. *taquetii* but as cultivated it is tall at 3-4 ft. with richly colored leaves, magenta purple flowers, and very late blooming. Plants which are more dwarf, bloom early, or with paler flowers are outside the range of var. *taquetii*. (Or perhaps it should only be cultivars 'Taquetii' and 'Taquetii Superba'?). A cross of *A. chinensis* 'Pumila' with var. *taquetii* may combine the dwarfness of the first with the rich pigments of the second - and might be listed under *A. chinensis* as a cultivar. However plants outside the species have been used in breeding and these necessitate use of the more inclusive name *A. x arendsii* in such cases.

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24. POSSIBLE ID=*Astilbe chinensis* and popular hybrid *A. x arendsii*. In general *A. chinensis* 'Pumila' contributed to dwarfness in the hybrids while var. *dauidii* to those reaching up to 1m in height. Those cultivars with a dense, erect inflorescence are more allied to *A. chinensis* in that trait. The rich magenta to near purple petal color of *A. x arendsii* comes in part from *A. chinensis* var. *dauidii*.

NOTE: A few cultivars are more correctly referred to *A. x rosea* (*A. chinensis* x *A. japonica*) than to the confusing, mixed group of *A. x arendsii* - also called *Astilbe* (*Arendsii* Group). It would be best to reserve this name for cases where the two species from documented wild stock have been crossed.

NOTE: Some cultivars under the *A. simplicifolia* name belong here as *A. x arendsii*. A cultivar assigned directly to *A. simplicifolia* MUST have simple leaves. The name *A. x crispa* is used for crosses of *A. simplicifolia* with *A. chinensis*. *A. x crispa* 'Perkeo' is a dwarf involving *A. chinensis* 'Pumila', having rich pink flowers, dwarfness, and dark crisped or crinkled leaf blades.

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25. POSSIBLE ID=*Astilbe x arendsii*. From *A. astilboides* and *A. thunbergii* a more open, feathery inflorescence has been obtained in the *A. x arendsii* clones. *Astilbe koreana* has probably contributed to the big plume effect also though not always named as a parent. But unlike most of these plumose species the flowers here are pigmented red to pink and purple. That pigmentation comes from *A. chinensis* variants, combining the form of some with the color of others.

NOTE: See node 22. above for descriptions of those *A. x arendsii* more similar to *A. chinensis*.

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40. Plants large to 1m - Hairs long and curled.....41  
40. Plants dwarf 20-40cm - Some hairs are short glandular....42
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41. POSSIBLE ID=*Astilbe rubra*

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42. Some variants of *A. japonica* var. *glaberimma* are lovely pale pink. The far more common pink-flowered *A. x arendsii* cultivars have long glandular hairs and a rounded leaf base. *A. japonica* var. *glaberrima* has a cuneate or wedge-shaped leaf base. This variety is cultivated but only among specialists so far.

NOTE: There are also pink-flowered hybrids of *A. thunbergii* which could possibly key here. I have yet to examine them. But since *A. thunbergii* is white-flowered and many of these are dark and bright pink I suspect they may have traits from other species. The hairs need to be examined on such selections as 'Strausenfeder' ('Ostrich Feather', 'Ostrich Plume') to see where they key.

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