

Propagation of Astilbe

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Astilbes are members of the Saxafragaceae family, native to North America and Asia, and are hardy, deciduous perennials. Most grow in dense clumps although some spread by underground rhizomes.

Astilbes can be propagated by seed, tissue culture, or division. Seed propagation is not recommended because cultivars do not come true from seed. Although *Astilbe chinensis* var. *pumila* plants are often propagated by seed, the most uniformly dwarf plants are produced from asexual divisions.

Astilbe seeds are small so when they are sown they should be lightly pressed into the germination medium. Seeds do not appear to require a stratification requirement, and germination temperatures should be maintained at about 65 to 70F.

Some astilbe cultivars are being tissue cultured, especially in England. I do not recommend this method because of the propensity of astilbe to mutate (sport)—particularly red cultivars.

Most astilbes are propagated by division of the crown. In commercial propagation it is important that division be done at least once—and sometimes twice—each year to maintain plants in a rapidly growing state. The best time to divide most astilbes is in the spring just before the leaves expand. After the first few leaves have fully expanded further division may result in aborted flower buds. Division can resume after flowering and continue until early August. Although astilbes can be divided after that date, some root zone (or greenhouse) heating should be provided to encourage root development. Late, out door division may result in poor root establishment so that plants will heave out of the bed or pot the following spring.

The crown is made up of many buds called eyes that are placed close to each other. The physical properties of the growing medium strongly influence the morphology of the crown. For example, the buds of plants grown in sandy soils tend to be widely spaced on the crown, whereas those grown on poorly drained or clay soils tend to be compressed and close together.

To divide astilbe, place a sharp knife between the eyes and cut downward through the entire crown structure. Commercial-sized divisions of the *A. arendsii* types contain 2 to 3 large eyes, but *A. simplicifolia* hybrids may contain as many as 5 to 10 eyes. *Astilbe chinensis* types are much more rhizomatous than the *A. × arendsii* types, so the underground stems are much elongated and may contain numerous buds. The rhizome should be cut apart, so that the division contains 2 to 3 buds. The 2- to 3-eye division is the most common size available in part because most of the astilbes are produced in Holland and must be washed free of soil in order to pass USDA inspection and be imported into the U.S. Crowns containing more than three eyes are too difficult to wash free of soil. After division the propagules should be replanted to the same depth as they were in the original container.

VOICE: Is cutting propagation of *Chionanthus virginicus* possible?

DAVID BEATTIE: Yes, I am told, but you must take cuttings when they are very soft in May. The window is very narrow, as with *Syringa vulgaris*. Treat with 5000 ppm IBA in ethylene glycol. A rooting percentage of about 95% is possible.