

ARROWWOOD VIBURNUM

Viburnum dentatum L.

Plant Symbol = VIDE

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Texas A&M University, Bioinformatics Working Group

Alternate Names

Southern arrow-wood, roughish arrow-wood, southern arrowwood

Uses

The dense foliage, white flower clusters, and dark blue berries make arrow-wood viburnum an attractive shrub for landscaping. Various cultivars have been selected for hardiness, shape of the plant, fall foliage color (yellow or red to reddish purple), and abundance of fruit. They can be used for borders or screens or as mass plantings and groupings to attract birds, which eat the fruit. Cultivars have been selected for characteristics of the foliage, compactness of habit, flowering time, and persistence of fruits. Many species of *Viburnum* are cultivated (see Dirr 1997 and Floraguide 2000).

Viburnum species have been used for numerous medicinal purposes – see Alternative Medicine Foundation: HerbMed (2000) for notes and internet links on medicinal use and other health related topics

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's

current status, such as, state noxious status and wetland indicator values.

Description

General: Honeysuckle family (Caprifoliaceae). Native shrubs growing 1-3 meters tall, with arching branches forming an overall rounded crown, sometimes spreading up to 2.5 meters; twigs slender, ridged and angled. Leaves deciduous, opposite, simple, oval to oblong, obovate, or elliptic, 4-10 cm long, with coarsely but regularly toothed margins, shiny dark green above, paler beneath, at least sparsely stellate-pubescent beneath and on the petioles, turning yellow to red or reddish-purple in late fall. Flowers are 5-8 mm wide, white, in flat-topped clusters 5-8 cm broad. Fruits ovoid, berry-like (drupes), 5-8 mm in diameter, bluish-black. The common name refers to the Native American use of the straight young stems as arrow shafts.

Variation within the species: Leaves of *V. dentatum* are stellate-pubescent in variable density on the lower surfaces and petioles. Localized geographic variants are often evident over the range of the species, with leaf shape and size often more consistent on a local or regional level than the type of vestiture. A number of varieties have been recognized – but these distinctions apparently have not been recognized among the horticultural forms.

V. dentatum var. *deamii* (Rehd.) Fern.
V. dentatum var. *venosum* (Britt.) Gleason
V. dentatum var. *indianense* (Rehd.) Gleason
V. dentatum var. *lucidum* Ait. (= *V. recognitum* Fern.)
V. dentatum var. *scabrellum* Torr. & Gray (= *V. scabrellum* (Torr. & Gray) Chapm.)

Viburnum recognitum has the leaves completely glabrous or sparsely strigose with simple hairs along the veins and petioles, commonly with tufts of soft, white hair in the vein axils of the lower surface. With *V. dentatum*, *V. recognitum* ranges from Texas to New England, but *V. recognitum* is the common form in the northern part of the range, *V. dentatum* in the southern part. *Viburnum scabrellum* is a form with broader, rougher leaves and primarily occurs in the southern part of the *V. dentatum* range.

Distribution

The *Viburnum dentatum* species complex is widespread in the eastern United States, from Maine to Florida and westward to Iowa and east Texas. For

current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

Adaptation

Open woods and margins, streambanks. Arrow-wood viburnum prefers loamy, neutral to acid soil with ample moisture, but is adaptable to a range of conditions from dry to fairly wet soil. Plants are salt-tolerant in New England coastal areas. The can grow in generally drier conditions than *V. acerifolium*. They most commonly occur in partial shade but can be grown in full sun. Flowering May-June; fruiting August-November.

Establishment

Plants may begin to produce fruits by the third year. Fruits apparently are consistently formed every year. Like related species of *Viburnum*, the seeds of *V. dentatum* probably have a cold requirement for breaking embryo dormancy. Vegetative reproduction is through short rhizomes and sprouts from the root crown.

Management

Plants of arrow-wood viburnum are propagated from cuttings or seed. They are easily transplanted and free from serious problems of disease or insect pests (with the caveat below). Occasional pruning is helpful in rejuvenation and shaping. Prune off basal suckers to restrict spreading if necessary.

Viburnum leaf beetle: The viburnum leaf beetle (*Pyrrhalta viburni*), native to Europe and Asia, was first encountered in North America in 1947, perhaps arriving earlier from Europe on nursery plants. It received little notice until 1978, when it caused severe defoliation of ornamental viburnums in Ontario and Quebec. It has now reached western New York and Maine and become a concern in urban landscapes and nurseries.

The adult and the larva “skeletonize” leaves by feeding on the leaves between the midrib and larger veins. Plants, which have been defoliated for 2-3 consecutive years, may be killed. The preferred host is *Viburnum opulus* and its selections; lesser damage is caused to *V. lantana* and *V. rafinesquianum*, *V. dentatum*, *V. acerifolium*, and *V. lentago*. Other species, particularly *V. rhytidophyllum* and *V. carlesii*, are relatively unaffected.

The entire life cycle of the viburnum leaf beetle takes about 8-10 weeks. Larvae hatch in early May and feed on the viburnum leaves throughout the larval period, which lasts 4-5 weeks. The larvae pupate in the soil. The adults (4.5-6.5 mm long, brown) appear

by mid-July and continue eating the leaves, then mate and lay over-wintering eggs on the twigs. Egg-laying holes are in a straight line on the underside of the current season's growth.

Chemical control of the viburnum leaf beetle is best applied to young larvae, because adults will fly away or drop to the ground if disturbed. If over-wintering egg sites are found, affected wood should be pruned and destroyed before the eggs hatch. Examine upper and lower leaf surfaces for feeding larvae. Potential biological control mechanisms are being studied.

Cultivars, Improved and Selected Materials (and area of origin)

These plant materials are somewhat available from commercial sources. Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under “United States Government.” The Natural Resources Conservation Service will be listed under the subheading “Department of Agriculture.”

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Prepared By

Guy Nesom

Formerly BONAP, North Carolina Botanical Garden,
University of North Carolina, Chapel Hill, North
Carolina

Species Coordinator

Gerald Guala

USDA, NRCS, National Plant Data Center, Baton
Rouge, Louisiana

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