

'Konza' Aromatic Sumac

Rhus aromatica Aiton var. *serotina*
(Greene) Rehder

A Conservation Plant Release by USDA NRCS Manhattan Plant Materials Center, Manhattan, Kansas



Figure 1. Leaves and fruit cluster of aromatic sumac in the summer around mid July. Photo courtesy of Google images.

'Konza' aromatic sumac (*Rhus aromatic* var. *serotina*) (Greene (Rehd.)) is a cultivar released in 1980 in cooperation with the Kansas and Nebraska Agricultural Experiment Stations.

Description

Konza aromatic sumac is a deciduous, native, perennial shrub which grows to a height of 10 feet. The plant is usually wider than it is tall, but growth form will vary depending on the soils and site location of the planting. The leaves of Konza are compound, consisting of three leaflets, and are attached to the plants stem in an alternate fashion. The trifoliate leaves are 1 to 3 inches long, petiolate, with pubescence below. Leaves are fragrant or at least odorous. It has orange to red fall foliage color. This shrub occurs singly or in dense thickets that may be connected by rhizomes. Root systems are deep and extensively branched. Stems are numerous, spreading and highly branched, and brown and pubescent when young, but develop a gray bloom with age. Plants of aromatic sumac are functionally dioecious, having male and female flowers on different plants. However, there are some plants that have some perfect flowers on an otherwise staminate (male) or pistillate (female) plant. Flowers are yellow in small dense inflorescences on short lateral shoots, staminate flowers in yellowish catkins, pistillate flowers in bright yellow, short panicles at the branch ends. Fruits are orange red, sticky, berry-like drupe containing a single bony seed.

Source

The original germplasm for the release Konza was collected in 1958 on a limestone break south of Manhattan, KS. Initial evaluation at Manhattan consisted of 20 accessions representing native collections from Wyoming, Nebraska, Missouri, Kansas and Oklahoma. The Konza germplasm exhibited the least amount of leaf rust and insect damage to the foliage. The germplasm was tested as PMK-32 and compared to commercial sources in 64 field plantings made in Nebraska, 24 in Kansas and 5 in Oklahoma in the 1970's. Konza proved superior in growth, establishment and form to the other materials tested.

Conservation Uses

The fruit is an important winter food for birds, including turkeys, ruffed grouse, robins and flickers, and for various small mammals. It is useful for windbreaks, cover on areas subject to critical erosion, screening unsightly areas and noise abatement. Although not selected for landscape use, Konza does have potential for use in highway rest areas, recreation areas, and for trapping blowing snow. Because it is a native species it requires little maintenance and will tolerate some drought when fully established.

Area of Adaptation and Use

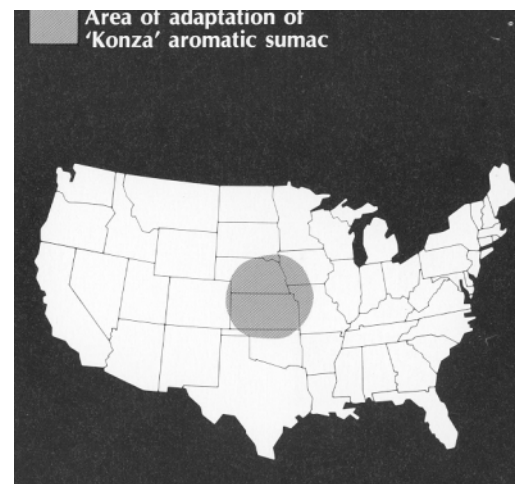


Figure 2. Area of adaptation of 'Konza' aromatic sumac.

Establishment and Management for Conservation Plantings

Seed should be planted at a ½ inch depth in a dry, coarse textured soil. Seeding rates of 2 to 4 pounds per acre are recommended depending on row spacing. It may be broadcast on rough surfaces or in pits. If drilled the seed

should be planted with other slow growing shrub species. The seedlings grow moderately well, but young plants are not highly competitive with fast growing herbaceous species. In the bare root nursery trade seed should be planted at ½ inch depth with 25 viable seed units per linear foot of row. Beds should be mulched to prevent excessive drying. Plants may be lifted as 1-0 or 2-0 stock, depending on growth rate. Field transplanted seedlings should be 8 to 12 inches tall. Once they are established seedlings are hardy and resilient.

Ecological Considerations

Konza can produce large thickets in grazed areas due to its vegetative reproduction. It is relatively unpalatable to livestock and wildlife due to the high tannin content of its leaves and stems. The plants are hardy and can grow in full sun or partial shade. This specie is susceptible to vascular wilt caused by *Fusarium oxysporum*. A sumac feeding psyllid (*Calophya trioziomiwa*) has been collected on fragrant sumac in many locations.

Seed and Plant Production

Fruits can be harvested in late summer or early fall. Fruit of *Rhus aromatic* is synchronous and does not support a typical staggered fruit ripening pattern. Fruits are collected by hand or by flailing the branches after leaf drop in the fall. Harvested fruits are macerated and flushed with water to remove the pulp, skin and debris from the lot. The remaining materials, including the seeds, are dried and fanned to remove loose debris. There are approximately 20,000 cleaned seed per pound. The recommended standards for purchasing seeds are 40 percent germination and 95 percent purity. Cleaned seed can remain viable in a dry, cool storage unit for up to five years. Seed germination is inhibited by a hard impervious seed coat and embryo dormancy. Both forms of dormancy vary widely among seed lots. Seed coat permeability may be increased by a 20 minute to 2 hour concentrated sulfuric acid scarification process. A cool, wet stratification period of 30 to 120 days is required to release embryo dormancy. Embryo dormancy can also be broken in fragrant sumac by a gibberellic acid (GA3) treatment at 500 to 1000 parts per million (ppm) concentrations.

Availability

For conservation use: Konza aromatic sumac seedlings are available from conservation nurseries.

For seed or plant increase: The Manhattan PMC maintains breeder and foundation seed stocks. There is no Registered Class of seed for Konza.

For more information, contact:
Manhattan Plant Materials Center
3800 South 20th Street
Manhattan, Kansas 66502
(785) 539-8761 FAX (785) 539-2034
<http://www.plant-materials.usda.nrcs.gov>

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For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov>>

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