

# Liquidambar styraciflua - American Sweetgum (*Hamamelidaceae*)

*Liquidambar styraciflua* is a pyramidal and rapidly growing shade tree in youth, becoming open and spreading in habit with age. American Sweetgum has shiny, dark-green, summer foliage that changes to a mixed or crimson autumn color. Autumn color can be spectacular. Sweetgum also has fruits that create a litter problem with age. Its wood is harvested for use in furniture and plywood.

## Form



## FEATURES

- large shade tree
- maturing at 60' tall x 40' wide under urban conditions, but much larger in the wild
- upright pyramidal growth habit in youth, becoming spreading, irregular, and open with age
- rapid growth rate

## Culture

- full sun to partial sun

-performs best in full sun in moist, deep, rich, slightly acidic soils, but is adaptable to dry soils, wet or permanently moist soils, shallow soils, poor soils, clay soils, and neutral to slightly alkaline pH soils

-propagated by seeds, rooted stem cuttings, or budded/grafted onto seedling understock

-Witchhazel Family, with a few relatively minor disease and pest problems, but chlorotic foliage can result from alkaline pH soils that lead to iron and nitrogen deficiency

-commonly available, primarily in B&B form

## Foliage

-lustrous dark green foliage in summer, either alternate along the terminal stems or clustered on the many lateral spur shoots

-5-7 large, pointed, serrated lobes create an overall star-like outline of the leaf blade, which is held on 4" long petioles

-average to spectacular autumn color, often a combination of green, yellow, orange, red, and purple foliage, but sometimes solid crimson, burgundy, or scarlet, coloring relatively late, in late Oct. and Nov.



## Flowers

-monoecious (staminate and pistillate flowers borne on the same tree), flowering in Apr. and May, greenish and ornamentally insignificant, being lost in the emerging foliage

## Fruits

-trees often do not flower and fruit for the first 15 yrs. or so of their life

-the spherical and spiny prominent green fruits arise from the lateral spur shoots and are suspended on long peduncles, slowly turning to brown in autumn

-the spiny fruits have many "beaks", which open in late autumn to release the winged, small seeds

-fruits abscise throughout the autumn, winter, and following spring, creating quite a mowing problem on lawns and a litter scenario on lawns, sidewalks,

gutters, and culverts

## Twigs

- stout, with many spur shoots along the main stems and branches
- great variation exists within the species as to the corkiness of the stems and young branches, which in extreme cases can become quite winged and exhibit a very bold and striking winter outline
- prominent winter buds are large and resinous at each stem terminus, with smaller lateral buds
- lateral branches are highly symmetrical and dense along the straight trunk in youth, forming a tight narrow pyramidal outline

## Trunk

- thick bark is brown to medium gray, prominently furrowed and ridged with age
- the tree slowly loses its strong central leader with age, often due to storm damage of the upper canopy or winter bud kill of the central leader

## USAGE

### Function

-shade, specimen, or focal point tree, often planted for its outstanding autumn color

### Texture

-bold texture when in foliage and bare

-thick density in foliage but average to thick density when bare, depending upon the degree of stem corkiness

### Assets

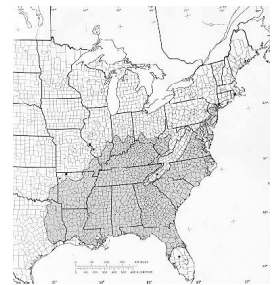
- shiny dark green summer foliage
- usually has excellent autumn color
- ornamental fruits (before their abscission that creates a liability)
- pyramidal growth habit and symmetrical branching in youth
- rapid growth rate
- wet site or dry site tolerant

### Liabilities

- abscised fruits become a litter and mowing hazard
- iron chlorosis of the foliage may develop in alkaline soils
- root system can become shallow and surface with age
- relatively weak wood is prone to storm damage with age and ascending height, and upper canopy buds may die during severe winters, resulting in loss of the central leader

### Habitat

- Zones 5 to 9
- Native to bottomlands of the Eastern U.S.



## SELECTIONS

### Alternates

- shade trees with rapid establishment (*Alnus glutinosa*, *Betula nigra*, *Fraxinus pennsylvanica*, *Gleditsia triacanthos*, *Liriodendron tulipifera*, *Styphnolobium japonicum*, *Zelkova serrata*, etc.)
- shade trees with excellent autumn color (*Acer rubrum*, *Acer saccharum*, *Fraxinus americana*, *Quercus rubra*, *Ulmus parvifolia*, *Zelkova serrata*, etc.)

### Cultivars – Variants – Related species

-*Liquidambar styraciflua* 'Moraine' - the most cold hardy form (to -25 degrees F), maintaining its pyramidal to upright oval growth habit through maturity, with scarlet autumn color