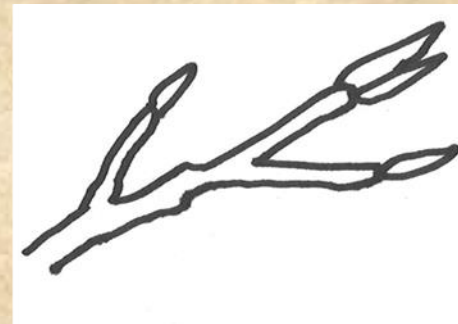
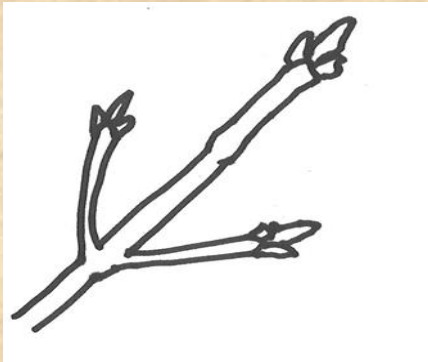


Dichotomous Key

- A Key to Common Native Trees of Alabama ANR-0509
https://www.aces.edu/wp-content/uploads/2019/03/ANR-0509_KeyToCommonNativeTrees_Lg.pdf
(OR Google “Alabama Tree ID”)
- Learn how to use Key
- Good way to learn distinguishing characteristics



Dichotomous Key

- 1. Leaves needle-like or scale-like; trees with cones
..... see **Conifers**
- 1. Leaves flat and broad; trees without cones
..... see **Hardwoods**

Conifers

- 1. Leaves needle-like 2
- 1. Leaves scale-like, sometimes longer ($\frac{1}{4}$ inch) pointed on the end and prickly to the touch; bark reddish-brown and fibrous; cones look like bluish-gray berries about $\frac{1}{4}$ inch in diameter; cones occur only on female trees(A) **eastern redcedar**
- 2. Needles attached to the twig in bundles or clusters
..... see **Yellow Pines**
- 2. Needles flat, attached to the twig separately, not in bundles or clusters 3

Dichotomous Key

Hardwoods

- 1. Leaves and buds opposite 2
- 1. Leaves and buds alternate 7
- 2. Leaves compound 3
- 2. Leaves simple 5
- 3. Leaves pinnately compound or trifoliolate (three leaflets) ... 4
- 3. Leaves palmately compound (A) **buckeye**
- 4. Leaflet edges smooth (entire), not toothed see Ashes
- 4. Leaflet edges toothed (serrate) see Maples
- 5. Leaves not lobed 6
- 5. Leaves lobed see Maples
- 6. Leaves heart-shaped (SC) **southern catalpa**
- 6. Leaves oval-shaped with a pointed tip . (A) **flowering dogwood**

Dichotomous Key

- 7. Leaves compound 8
- 7. Leaves simple 11
- 8. Leaflet edges smooth (entire), not toothed..... 9
- 8. Leaflet edges finely toothed (serrate) 10
- 9. Leaves once pinnately compound; twigs often armed with paired unbranched thorns at base of leaves...(NC) **black locust**
- 9. Leaves once and twice pinnately compound; twigs and bark typically armed with thorns, commonly 3-branched.....
.....(A) **honeylocust**
- 10. Leaves with 15 to 23 leaflets; fruit a yellow-green ball 1½ to 2 inches in diameter; bark gray-brown to black
.....(NC) **black walnut**
- 10. Leaves with 5 to 17 leaflets, usually 15 or less... **see Hickories**

Additional Tree Species

- **White ash**
- **Eastern cottonwood**
- **Virginia pine**
- **Slash pine**
- **More Hickories – shagbark, pignut**
- **Silver maple**
- **More Oaks – blackjack, bur, cherrybark**
- **Eastern hophornbeam**
- **Black locust**
- **Basswood**
- **Any other requests?**

Fall Leaf Colors

- **Native American myth – slaying of the Great Bear in the sky**
 - **Reds: blood dripped to Earth**
 - **Yellows: splattering fat while cooking bear meat**
- **Chemical processes triggered by shorter days, not freezing temperatures or frost, cause leaves to change color**



Fall Leaf Colors

- Leaf pigments determine color
 - Chlorophyll in summer for photosynthesis (green)
 - Chlorophyll masks other pigments
- Fall – fewer daylight hours, cooler temps
 - Tree growth, chlorophyll production slow down
 - Chlorophyll breaks down, other pigments visible
 - Veins that carry fluids into and out of leaf are closed off by layer of cells at base of leaf, leads to abscission
 - Clogged veins trap sugars in leaf, promote production of red pigment





Fall Leaf Colors



- **Pigments groups**
 - **Anthocyanins (reds) – produced end of season**
 - **Carotenoids (yellow/orange/brown) – always present**
 - **Carotenes – orange**
 - **Xanthophylls - yellow**
- **Conditions affecting color intensity**
 - **Warm, wet spring and dry, warm, sunny days and cool (35-45 degrees) nights during fall – more brilliant reds**
 - **Leaves with more direct sun exposure – red (more sugars)**
 - **Shaded leaves – yellow (carotenoids always present)**
 - **Freezing temps – kills leaf cells, chemical processes stop**
 - **Summer drought, warm fall, rainy fall weather delay or lessen color intensity**

Fall Leaf Colors

- More information about fall colors
 - <https://www.fs.fed.us/fallcolors/2015/science.shtml>
- Fall color predictor map (national)
 - <https://smokymountains.com/fall-foliage-map/>
- Timing of color change varies by species (genetics)
- Stress can also trigger fall colors



Source of Native Plants

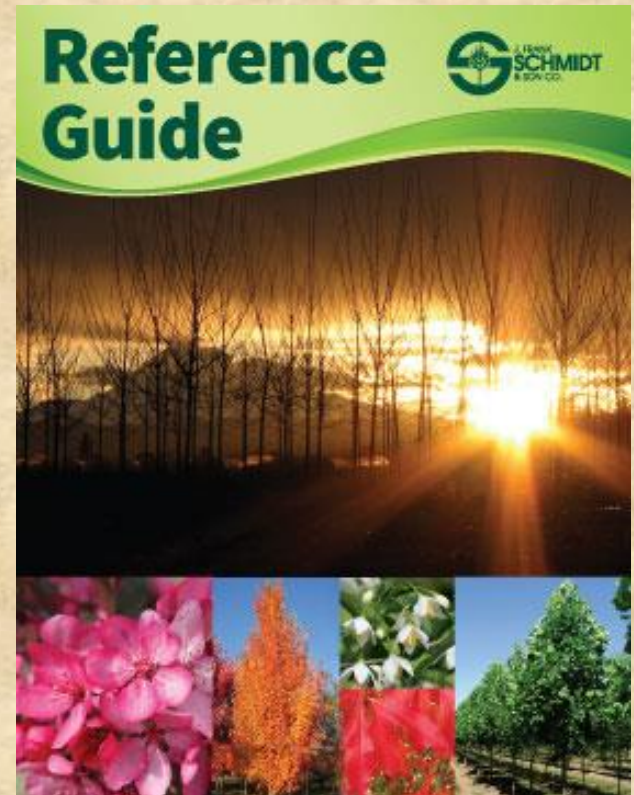
- Growwildinc.com – native plant nursery in Fairview, TN (just west of Franklin, TN)
 - By appointment only
 - More than 850 species and cultivars of native plants, including trees and shrubs



J. Frank Schmidt & Son Co.

- Excellent reference
- www.jfschmidt.com
- Downloads
 - Tree Reference Guide
 - 400+ species and cultivars
 - Catalog/Price Guide
 - UtiliTrees
 - New Trees

Explore their website!



Schmidt – New Trees



Firestarter™ Tupelo

***Nyssa sylvatica* 'JFS-red'**

Zone: 5 | Height: 35' | Spread: 18'

Shape: Narrow oval to upright oval

Foliage: Dark green

Fall color: Bright red

Fruit: Seedless

Symmetrical, upsweeping branches and a strong central leader contribute to the remarkably neat and uniform appearance of this relatively narrow tupelo. Dark green foliage turns intensely bright red, coloring earlier in autumn than most cultivars.