

# WHITE OAK

## Quercus alba L.

OTHER COMMON NAMES: Fork-leaf white oak, Ridge white oak, Stave oak.

FORM: Usually 60-80 feet high, with trunk diameter 2-4 feet, may reach a height of 140 feet, diameter 5 feet; trees in dense forests have long clean bole with little taper and a narrow crown; in the open, bole soon divides into massive, wide, spreading branches forming an open irregular crown.

BARK: Mature bark light gray or nearly white, thick, divided by shallow fissures into long, irregular, thin scales.

TWIGS: At first light green, tinged with red; coated with loose, pale hairs; later ashy gray.

LEAVES: Alternate, simple 5-9 inches long, 2-4 inches wide, obovate in outline, cuneate at base, 3-9 lobed; lobes blunt, separated by rounded sinuses which are shallow or extend nearly to the midrib; thin, bright green, smooth above, paler and smooth below.

FLOWERS: Appear when the leaves are about a third grown, monoecious; staminate in hairy aments 2 1/2-3 inches long, calyx very hairy, yellow; pistillate flowers small, solitary in axils of the leaves of the season, mostly on short stalks, red spreading styles.

FRUIT: A sessile or stalked acorn maturing in a single season, nut ovoid-oblong, light chestnut-brown, shiny at maturity, about 3/4 inch long, enclosed for 1/4 of its length in the bowl-shaped cup, slightly pubescent within, consisting of numerous scales, knobby near the base.

WINTER BUDS: Alternate, those near the tip clustered about the terminal bud, broadly ovate, obtuse, reddish-brown, about 1/8 inch long.

WOOD: Produces best grade of oak timber, wood hard, heavy, strong, durable, pale brown with lighter colored sapwood.

USES: Water-tight barrels, inside woodwork, furniture, lumber, millwork, railroad ties, pulp. Historical uses: shipbuilding, fences, agricultural implements.

HABITAT: Tolerant of many soils, sandy, moist bottom lands, rich uplands, stony ridges, prefers rich moist soil.

DISTINGUISHING CHARACTERISTICS: Loose, scaly, grayish or white bark; deeply round-lobed leaves; buds small, obtuse; pistillate flowers borne in axils of the leaves of the season.

DISTRIBUTION IN ALABAMA: Common throughout the state with the exception of the southernmost counties.

### EXPLANATION OF PLATE

- |                      |                              |
|----------------------|------------------------------|
| 1. A fruiting branch | 5. Vertical section of a nut |
| 2. A nut, basal view | 6. A seed                    |
| 3. A cup             | 7. A germinating nut         |
| 4. A cup scale       | 8. A winter branchlet        |



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