

Austrian Pine



- Growth Form: pyramidal
- Crown Density: open
- Size: to 40 feet high to 30 foot spread
- Drought Resistance: excellent
- Cold Hardiness: fair
- Growth Rate: slow
- Life Span: long
- Elevational Range: to 7,000 feet
- Soil Conditions: tolerates alkaline well
- Possible Insect Problems: pine tip moth
- Possible Disease Problems: fairly resistant
- Wildlife Value: high: song and ground birds, food value from seeds
- Seasonal Color: evergreen
- Miscellany: forms a good screen

Austrian Pine

Pinus nigra



ZONE: 4-7
HEIGHT: 50-60'
SPREAD: 20-40'

SHAPE: Oval
EXPOSURE: Full Sun
GROWTH RATE: Medium, can grow 13-24" per year once established and in optimal conditions.

SOILS: Grows well in clay & alkaline soils. But also does okay in a wide range of soils – acidic, alkaline, clay, loamy, sandy, well-drained, moist.

DESCRIPTION:

- Very hardy. Extremely tolerant of adverse soil conditions, heat, and drought. It has been called the toughest of all European pines. Nowhere has this been put more to the test than in the windbreaks of America. Since it was introduced to the U.S. in 1759, this pine has been put to work as both a beautiful landscape tree and a hard-working tree that

restores strip mines and scarred land, stabilizes soil and tames the wind. This stately tree can be seen in parks, along streets, in residential landscapes, and as farm windbreaks throughout much of the U.S. Landscapers use the dense, dark green beauty of these trees for backdrops, but it is also an excellent specimen tree because of its leaf pattern

WILDLIFE VALUE:

- Birds and squirrels enjoy Austrian pine seeds. The large evergreens also provide shelter and nesting sites, particularly for birds such as owls.

HISTORY / LORE / USE:

- The Austrian Pine is a native of Austria, northern Italy and the former Yugoslavia. Its forebears were likely worshipped by the Romans over 2000 years ago. Over 217 million Austrian pines were planted during the nation's great dust bowl shelterbelt project. It has thrived for over 200 years in some of the worst soil and climate conditions America has to offer. Great for windbreaks.

MOISTURE:

- Normal moisture requirements with good drought tolerance.

LEAVES / NEEDLES:

- Features dark green needles grown in bundles of two that sometimes curve or twist slightly. They are 3-6" long and persist for 4-8 years, giving the tree its dense crown. Austrian pine hold their needles better in Fall, are much greener, and more resistant to Pine Beetle than Ponderosa pine.

FLOWER COLOR:

- Yellow, nondescript

BLOOM TIME:

April – May

FRUIT DESCRIPTION:

- Cones are oval, 1-3" long, dry, light brown. Each scale is tipped with a small prickle.

Source for this information: www.arborday.com



Pinus nigra Austrian Pine¹

Edward F. Gilman and Dennis G. Watson²

INTRODUCTION

Austrian Pine is medium to fast-growing, reaching 40 to 60 feet in the landscape, taller on very old specimens (Fig. 1). Combined with the dark green needles, the dense habit makes for an outstanding specimen tree. The pyramidal crown which becomes flat topped and somewhat irregular on older specimens is comprised of thick horizontal branches sweeping horizontally and up as they spread from the trunk. Lower branches are held on the trunk making this a nice, short-trunked specimen or screen plant. Plant it so the lower branches can be left on the trunk to show the true beauty of this Pine. Dark furrowed bark is very attractive, particularly on older trees.

GENERAL INFORMATION

Scientific name: *Pinus nigra*

Pronunciation: PIE-nus NYE-gruh

Common name(s): Austrian Pine, Black Pine

Family: *Pinaceae*

USDA hardiness zones: 5 through 8A (Fig. 2)

Origin: not native to North America

Uses: Bonsai; recommended for buffer strips around parking lots or for median strip plantings in the highway; screen; specimen; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common

Availability: generally available in many areas within its hardiness range

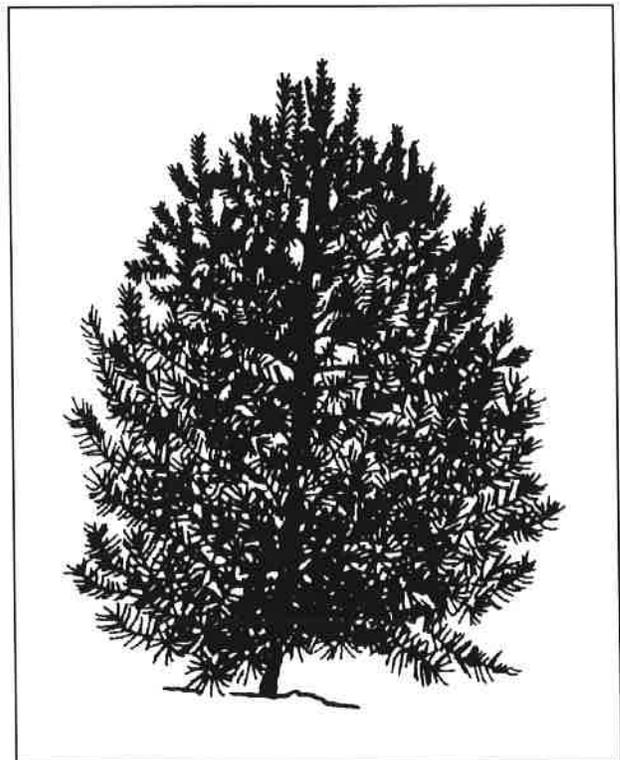


Figure 1. Middle-aged Austrian Pine.

DESCRIPTION

Height: 40 to 60 feet

Spread: 25 to 35 feet

Crown uniformity: symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms

Crown shape: oval; pyramidal

Crown density: moderate

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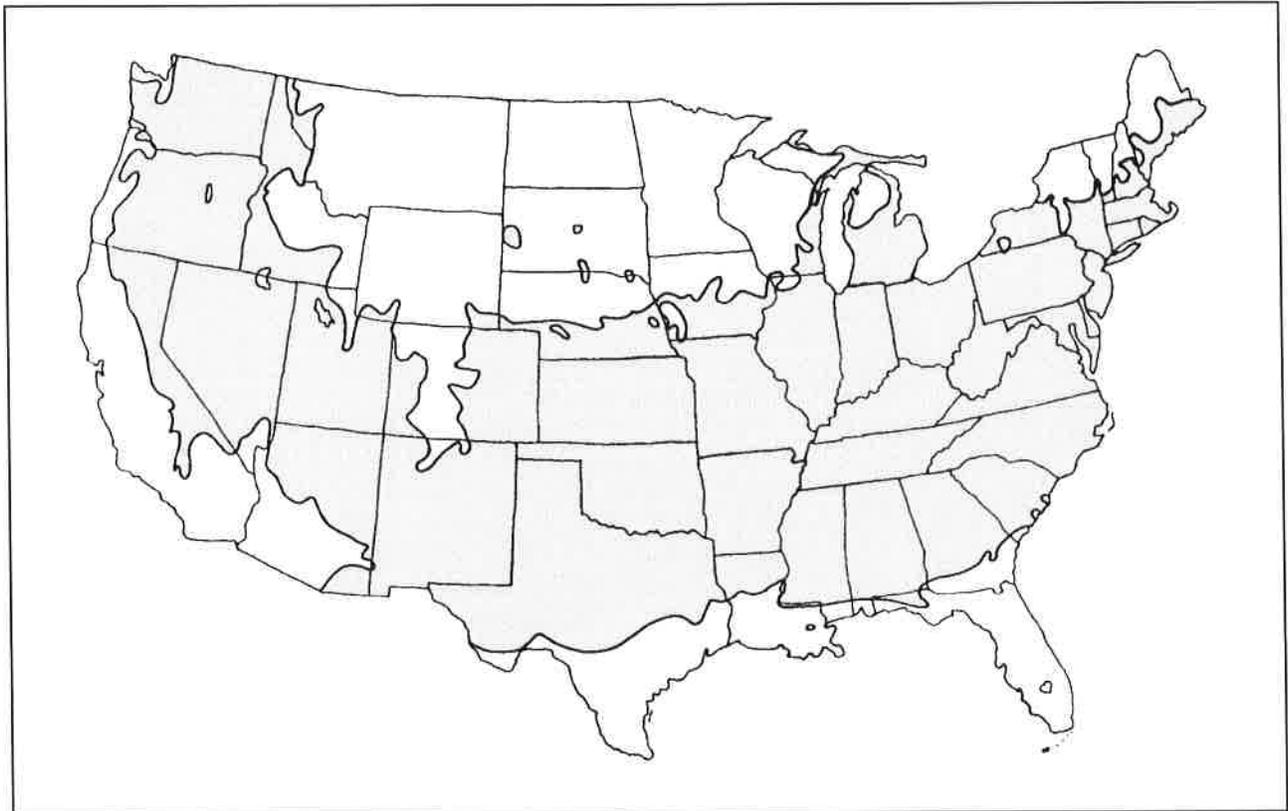


Figure 2. Shaded area represents potential planting range.

Growth rate: medium

Texture: fine

Foliage

Leaf arrangement: spiral (Fig. 3)

Leaf type: simple

Leaf margin: entire

Leaf shape: needle-like (filiform)

Leaf venation: parallel

Leaf type and persistence: evergreen; fragrant; needle leaf evergreen

Leaf blade length: 4 to 8 inches; 2 to 4 inches

Leaf color: green

Fall color: no fall color change

Fall characteristic: not showy

Flower

Flower color: yellow

Flower characteristics: inconspicuous and not showy

Fruit

Fruit shape: oval

Fruit length: 1 to 3 inches

Fruit covering: dry or hard

Fruit color: brown

Fruit characteristics: does not attract wildlife; fruit, twigs, or foliage cause significant litter; persistent on the tree; showy

Trunk and Branches

Trunk/bark/branches: droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; not particularly showy; should be grown with a single leader; no thorns

Pruning requirement: needs little pruning to develop a strong structure

Breakage: resistant

Current year twig color: brown

Current year twig thickness: stout; thick

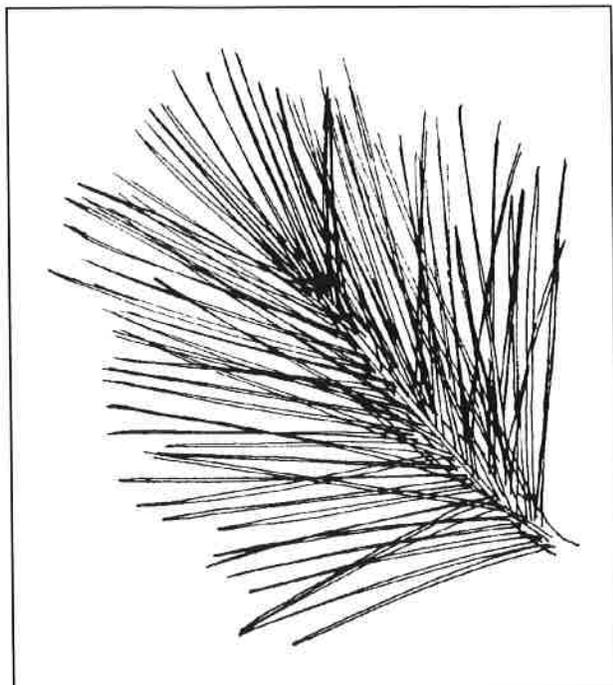


Figure 3. Foliage of Austrian Pine.

Culture

Light requirement: tree grows in full sun

Soil tolerances: clay; loam; sand; slightly alkaline; acidic; well-drained

Drought tolerance: high

Aerosol salt tolerance: high

Soil salt tolerance: good

Other

Roots: surface roots are usually not a problem

Winter interest: no special winter interest

Outstanding tree: not particularly outstanding

Invasive potential: little, if any, potential at this time

Ozone sensitivity: tolerant

Verticillium wilt susceptibility: not known to be susceptible

Pest resistance: very sensitive to one or more pests or diseases which can affect tree health or aesthetics

USE AND MANAGEMENT

It will stand dryness and exposure, is well adapted to urban conditions including alkaline and clay soil and tolerates road and seaside salt well. Some members of the population may not be adapted to alkaline soil. Unfortunately, Austrian Pine is very susceptible to tip blight in the east and for this reason should be used sparingly. There are also some recent

reports of Pine wilt nematode infesting trees and killing them in one season. But it is one of the best Pines for Texas and is highly recommended there. Austrian Pine is difficult to transplant so should be planted from containers or moved balled and burlapped after being root pruned.

Propagation is by seed.

There are few cultivars: 'Austriaca' - stout, broadly ovate; 'Pyramidalis' - pyramidal.

Pests

Some adelgids will appear as white cottony growths on the bark. All types produce honeydew which may support sooty mold. European Pine shoot moth causes young shoots to fall over. Infested shoots may exude resin. The insects can be found in the shoots during May. Pesticides are only effective when caterpillars are moving from overwintering sites to new shoots. This occurs in mid to late April or when needle growth is about half developed.

Bark beetles bore into trunks making small holes scattered up and down the trunk. Stressed trees are more susceptible to attack. The holes look like shotholes. Keep trees healthy.

Sawfly larvae caterpillars are variously colored but generally feed in groups on the needles. Some sawfly larvae will flex or rear back in unison when disturbed. Sawflies can cause rapid defoliation of branches if left unchecked.

Pine needle miner larvae feed inside needles causing them to turn yellow and dry up.

Pine needle scale is a white, elongated scale found on the needles. Pine tortoise scale is brown and found on twigs. Depending on the scale, horticultural oil may control overwintering stages.

Pine spittle bug lives and hides in a foamy mass.

Spruce mites cause damage to older needles, and are usually active in the spring and fall. Mites cause older needles to become yellowed or stippled.

Zimmerman Pine moth larvae bore into the trunk. The only outward symptoms may be death of parts of the tree or masses of hardened pitch on the branches.

The larvae of Pine weevils feed on the sapwood of the leaders. The leader is killed and the shoots replacing it are distorted. First symptoms are pearl white drops of resin on the leaders. The leaders die when the shoot is girdled as adults emerge in August. Prune out and burn infested terminals before July 15.

Pine wilt nematode can be a serious problem. Infested trees can die in one growing season. There is no control at this time.

Diseases

Diplodia tip blight is common on Austrian Pine and disfigures trees as they reach 25 to 30 years of age. The new growth turns brown and the branch is stunted. Black fruiting bodies may be found on needle bases within the sheath. Fungicides are sometimes suggested to control the disease but as yet no satisfactory control measures have been developed.

Needle blight infects Austrian Pine. Dark, slightly swollen bands form on one year old needles in late summer. The part of the needles beyond the band dies. Severely infected trees look thin.