Scientific Name: *Carpinus betulus*
Common Name: European Hornbeam

Environmental Conditions:
- **Hardiness Zone:** 5a (4)
- **Soil Moisture:**
  - occasionally saturated or very wet soil: 2
  - consistently moist, well drained soil: 3
  - occasional periods of dry soil: 5
  - prolonged periods of dry soil: 8

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- **Sun/Shade:** full sun
- **Salt:** sensitive
- **pH:** $\leq 8.2$

Insect/Disease Factors: None serious or limiting, leaf minor possible, two-lined chestnut borer sometimes attacks ‘Fastigiata’

Growth Characteristics:
- **Height:** 40’-60’
- **Width:** 30’-40’
- **Form/Habit:** pyramidal to rounded in youth, oval to rounded at maturity, fine textured branches, low branching tendency typically creates short trunk
- **Rate:** slow to medium

Ornamental Characteristics:
- **Flower:** catkins with light-green bracts, spring
- **Fruit:** small green-brown nutlets at base of leafy flower bracts in pendulous clusters, mature in fall
- **Seasonal Foliage Color:** dark green in summer, yellow to yellow-green in fall, fall color is often late
- **Bark:** attractive, smooth slate-gray

Transplant Issues: Difficult to transplant B&B or bare root, somewhat slow to establish

Management Issues: Typically low branched, may require pruning to be used as street tree, tolerates heavy pruning, dieback can be a minor problem, narrow branch angles on columnar forms may be problem with heavy snow/ice loads

Suggested Uses: Wide street tree lawns/pits, narrow tree lawns/pits with pruning, parks, suitable for CU-Structural Soil™, columnar forms useful for screening or hedging

Cultivars: ‘Fastigiata’ (35’-40’ high, 20’-30’ wide, narrowly conical becoming broadly oval-vase shaped with age, very dense branching), ‘Columnaris’ (another upward branching and compact crown form commonly confused with ‘Fastigiata’ in the nursery trade, theoretically ‘Columnaris’ develops a central leader and ‘Fastigata’ does not), ‘Pyramidalis’ (just another name given to ‘Fastigiata’ and ‘Columnaris’ forms), ‘Franz Fontaine’ (35’-40’ high, 15’ wide, narrowest form available, maintains narrow-columnar form with age as current season’s growth curves inward toward central leader)

‘Fastigiata’