

Toughest on the block



Emerald Avenue® Hornbeam (*C. b.* 'JFS-KW1CB' PP22814) from J. Frank Schmidt & Son Co. is a great streetscape tree. It has a strong central leader and sturdy branch arrangement and was developed for heat tolerance. PHOTO COURTESY J. FRANK SCHMIDT & SON CO.

Disease resistant and tolerant of conditions, hornbeams make stalwart street or screening tree

BY EMILY LINDBLOM

Hornbeams (*Carpinus*) may be lesser-known trees, but their toughness and versatility makes them suitable in a variety of landscapes, including as street trees or for screening. It's no surprise more and more Oregon nurseries are growing them.

Tiffanie Baker, manager of sales and production at **Bountiful Farms Nursery Inc.** in Woodburn, Oregon, has been growing shade trees for 23 years, including three European hornbeams: *Carpinus betulus* 'Fastigiata', *C. b.* 'Frans Fontaine' and *C. b.* 'Lucas'. Those are the three most popular grafted *Carpinus* grown at the nursery, and most are grown pot-in-pot, she said.

Growing popularity

Rick Metzger is the sales and production manager at **Heritage Seedlings & Liners Inc.** in Salem, Oregon, which grows nine grafted types plus the European hornbeam (*C. betulus*), American hornbeam (*C. carolinianas*) and the Korean hornbeam (*C. coreanas*).

Hornbeams are becoming more popular than they were, Metzger said. "Some are used for hedges and some as straight street trees, just depending on where they're planted," he said.

Heritage Seedlings sells European Hornbeam seedlings and grafted varieties to other nurseries.

Guy Meacham, new plant development manager at **J. Frank** >>



European hornbeam (*C. betulus*) can be planted in a row and trimmed into a tall hedge, said Tiffanie Baker at Bountiful Farms Nursery Inc.

PHOTO COURTESY BOUNTIFUL FARMS NURSERY INC.

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Schmidt & Son Co. in Boring, Oregon, said the company has been offering hornbeams since the 1970s.

“They’re very resilient, they can take pollution and they’re a good city tree,” Meacham said. “They don’t suffer from too many disease problems.”

He said ‘Fastigiata’ is the most commonly used cultivar.

Then the slightly narrower ‘Frans Fontaine’ was introduced in the 1990s, and Meacham said for the longest time those were the two most popular *Carpinus*. In the last 20 years, Meacham said, the *C. caroliniana*, the American hornbeam, has become more prevalent.

“If you grow that tree from seed, there’s a lot of varieties out in those seedlings,” Meacham said. He added that some varieties of the American hornbeam do not shape well, but growers have started developing other varieties that work better in streetscapes and landscaping.

Streetscape trees

Lyle Feilmeier, an arborist with 29 years at **Bartlett Tree Experts** in Clackamas with 35 years’ experience in the industry, said he has learned the value of hornbeams and their specific uses.

“A hornbeam has a lot of value in its younger years as a street tree, as a screening tree,” Feilmeier said. The foliage comes in with a wall of green leaves that block the light. “As the tree grows, depending on the cultivar, it can become a large monster that overpowers a site.”

In its first eight to 10 years, the ‘Fastigiata’ grows very narrow in a columnar form, but once it reaches about 30 to 40 feet high, it stops growing tall and instead grows very wide — about 25 to 30 feet wide.

Feilmeier said knowing about that fact when selecting the trees helps a landscaper in the long run.

“Many people plant these trees and only think about the short term,” Feilmeier said. “The first five years they’re amazing trees, but Mother Nature doesn’t stop. In neighborhoods or large developments, they’re often used as street trees, and are



The versatility of hornbeams extends to being pruned into shapes, a common practice in Europe. Here a ‘Fastigiata’ is pruned into a beehive shape. PHOTO COURTESY BOUNTIFUL FARMS NURSERY INC.

appealing for eight to 10 years. Then they keep growing and they lose visibility, and it depends on that private tree owner and what they’re trying to do.”

Baker at Bountiful Farms said it’s important for city landscapers to know this so they can plan for it in the long term. “They’ll plant it and let it go and it will usually end up getting pruned,” Baker said.

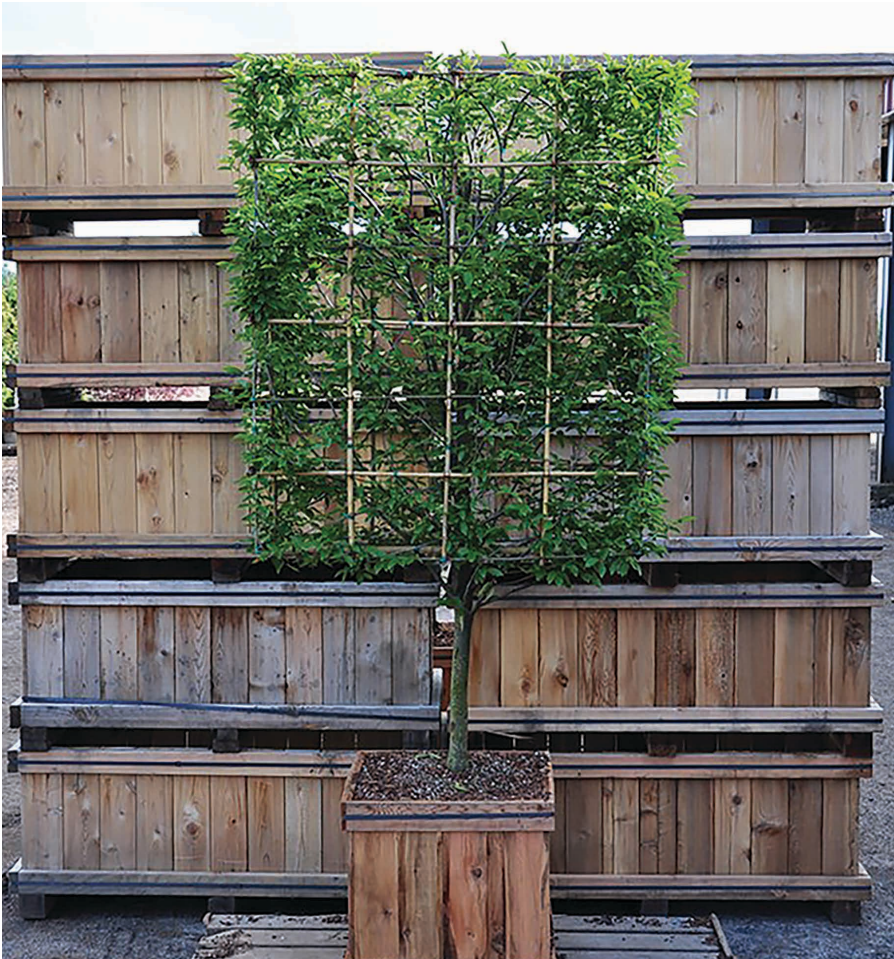
Baker said ‘Fastigiata’ can be used for residential purposes too.

“Residents use them if they have big properties to line driveways,” Baker said.

“Or in small properties if they get fooled to think it’s a columnar tree, and then they have to take it out after eight years.” The ‘Fastigiata’ is the fastest growing *Carpinus* that Bountiful Farms grows.

‘Frans Fontaine’ is better suited as a narrower street tree. Baker said at a young age it looks exactly like the ‘Fastigiata’, but doesn’t grow as wide. At full growth, the ‘Frans Fontaine’ is about 35 feet tall and 15 feet wide.

“It’s very low maintenance and should be a street tree because it does



A 'Fastigiata' is pruned into a square shape. PHOTO COURTESY BOUNTIFUL FARMS NURSERY INC.

maintain its upright form.” She said once established, both the ‘Fastigiata’ and the ‘Frans Fontaine’ can have a very long life.

Screening and hedges

Another way hornbeams can be versatile and used in screens is to prune them into patterns and shapes.

Arborist Feilmeier planted several hornbeams in a row and grafted their branches in a criss-cross pattern, pruning the trees to maintain the pattern and size he wanted.

He has also grown a set of three hornbeams together with separate trunks that connect into a thick, well-manicured hedge at the top.

They can grow tall and wide and be shaped into a teardrop with a rounded bottom and a point at the top.

Baker said “hornbeams are very easy to form if they want to hedge it or square it off to make a topiary look.”



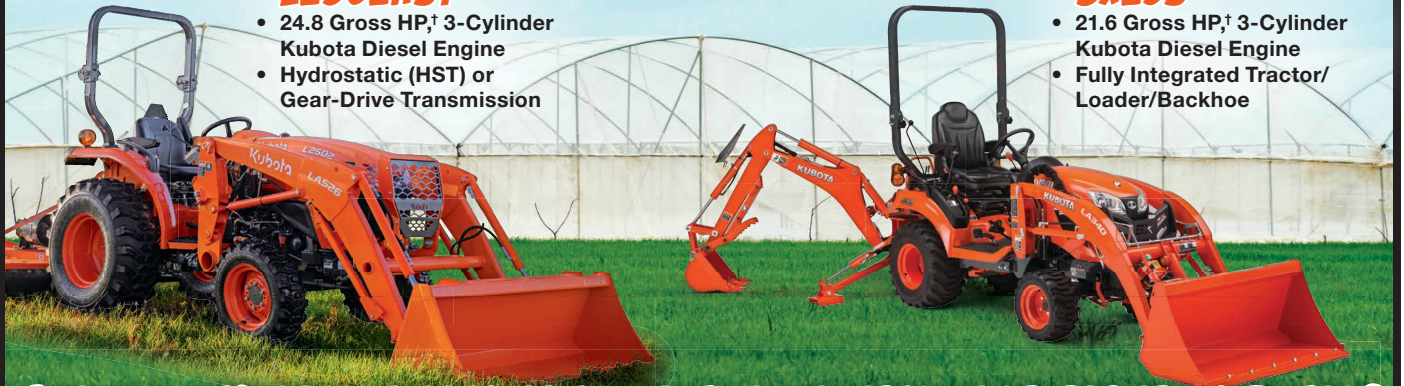
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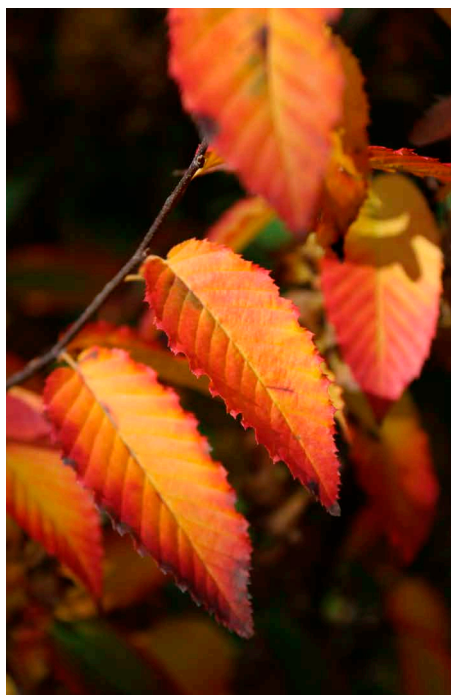
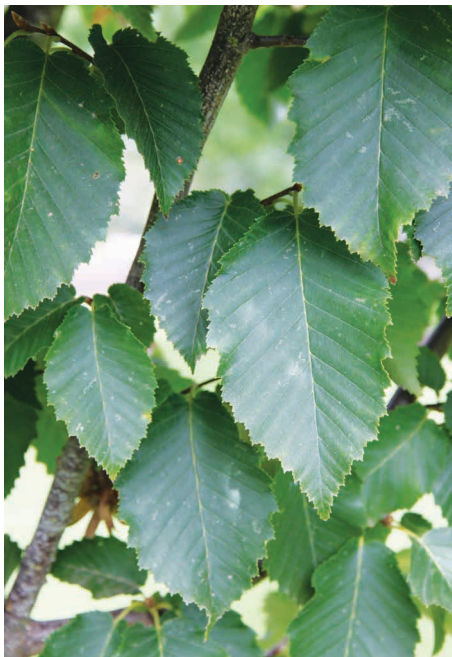
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In addition to providing texture with its deeply-ribbed leaves, different varieties of hornbeam can provide a burst of fall color in its leaves and seedpods in the fall. In pairs from top to bottom, left to right: green and fall color of Emerald Avenue® Hornbeam (C. b. 'JFS-KW1CB' PP22814), green and fall color of Rising Fire® American Hornbeam (C. c. 'Uxbridge'), and green and fall seed color of Native Flame® American Hornbeam (C. c. 'JFS-KW6'). PHOTOS COURTESY OF J. FRANK SCHMIDT & SON CO.

The 'Fastigiata', 'Frans Fontaine' and 'Lucas' at Bountiful Farms all have branches starting at the ground for a complete hedge. The farm also grows European hornbeams called that can be grown in a row and shaped to have full trunks under their hedges.

A *C. betulus* can be grown into a 12-foot tree, with a six-foot trunk and a

six-by-six-foot-square hedge on top.

"Growers do a lot of manipulating and shaping of trees in Europe, and we have a portion we do that with here," Baker said.

Feilmeier said hornbeams can be molded into many kinds of shapes and can be used purposefully, as long as the landscaper knows what to expect.

"It just depends on how much formality a landscaper wants and how much they're willing to spend to get that formality with the amount of maintenance involved," Feilmeier said.

He added that they are less expensive to maintain than other types of hedges, including laurel hedges.

Weather tolerance

Hornbeams also have a wide tolerance for weather and are suitable for many regions.

“All these varieties like full sun, here (in Oregon), and in Utah to the Midwest,” Baker said.

The ‘Fastigiata’ often shows up on city lists in Zones 4–8, making it a versatile option for different climates in the U.S.

Meacham at J. Frank Schmidt said one advantage to growing the American hornbeam (*C. caroliniana*) is that it’s cold hardier than the European varieties.

Emerald Avenue® Hornbeam (*C. b.* ‘JFS-KW1CB’ PP22814) developed by J. Frank Schmidt and Son Co. also has excel-

“Typically the vast majority of seedlings are going to have yellow or orange fall colors, but some have red ...”

— Guy Meachem, new plant development manager at J. Frank Schmidt & Son Co.

lent heat tolerance.

Fall color

Another attractive quality of hornbeams is their fall foliage.

“Typically the vast majority of seedlings are going to have yellow or orange fall colors, but some have red so some people make selections of red leaves and upright forms which are better for planting on landscapes,” Meacham said. J. Frank

Schmidt introduced new cultivars of American hornbeams, including the vibrant red Native Flame® (*C. c.* ‘JFS-KW6’) and the orange Rising Fire® (*C. c.* ‘Uxbridge’).

Mike Yanny of Johnson’s Nursery in Wisconsin introduced the more rounded

Fire King™ and the narrow upright Firespire® American hornbeam varieties.

Yanny bred them especially to turn red in the fall and to be able to handle colder weather in Wisconsin.

The ‘Frans Fontaine’ has a nice green leaf in the summer.

“Like the ‘Fastigiata’, it turns yellow to bronze in the fall. They lose their leaves all at once so it’s easy to clean up in the fall,” Baker said.

She said the ‘Lucas’ holds its leaves in the winter, making it great for hedging.

“The leaves are a bit darker in the summer and in the fall they turn yellow and brown and hold their leaves,” Baker said. “It’s a great selection for a hedging plant for homeowners.”

The need for maintenance

“Where I find them useful is the small postage stamp properties that need >>>

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a screen wall because the properties are close to each other,” arborist Feilmeier said. “In my previous landscape I created a hedge wall. The hornbeam was the perfect size plant for screening between my property and my neighbor.”

But they’ll need upkeep.

“They’ll either need to maintain them, or not plant them in that space,” Feilmeier said. “There’s a misunderstanding for how to use hornbeams. People expect if they plant a tree they don’t have to maintain it, but because it’s in an urban environment, if they don’t maintain it, it’s going to outgrow their space.”

He said that’s true for many trees, but especially hornbeams.

The ‘Lucas’ is a newer variety that differs from other hornbeams, as it is slower growing and very columnar. It reaches 30 feet high but only 10 feet wide.

Baker said Bountiful Farms has been growing the ‘Lucas’ for about four to five

years, and it was fairly new to America from Europe when they got it.

“It’s just now starting to gain popularity,” Baker said. “In eight years it’s probably 12 to 15 feet tall and about three to four feet wide.”

Another variety is the very slow growing dwarf European hornbeam, the *C. b.* ‘Columnaris Nana’, which is used in smaller landscapes. Baker said one 6-year-old plant is only four feet tall and one foot wide. The Nana is also not as columnar as other varieties.

Feilmeier said the ‘Columnaris Nana’ is one variety that landscapers can plant and forget about, as long as they know what the use is for. Meacham said the ‘Columnaris Nana’ will likely grow to 10 feet tall after 20 years.

Asian hornbeams

Other varieties that are more com-

mon in Asia, the Japanese hornbeam (*C. japonica*) and the Korean Hornbeam (*C. coreana*), are not as commonly used in the U.S. yet. But Meacham predicts they will start to gain popularity.

Metzger said Heritage Seedlings doesn’t sell many of the *C. coreana* trees, but some of the ones they do go on to be used for Bonsai.

“I think people are always looking for new and different plants,” Meacham said. “People like myself are making selections to bring new plants to market.” ☺

Emily Lindblom is an Oregon-based freelance journalist covering business, environmental and agricultural news. She has a background in community reporting and a master’s degree in multimedia journalism. Visit her website at EmilyLindblom.com or reach her at Emily@EmilyLindblom.com.



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