On the campus of Illinois State University, thousands of trees can be traced to one planter—maybe.

# Fell Arboretum

*Story and Photos By*
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**Jesse W. Fell's philosophy of planting—and caring for—trees continues today on the campus of Illinois State University.**

Don Schmidt doesn't think Jesse Fell personally planted 35,000 trees.

Instead, Illinois State University's "Dean of Green" believes Fell planted trees the way Schmidt plants trees.

"I point to a place and I say 'right here' and the groundskeeper digs the hole and plants the tree," said Schmidt, who teaches horticulture classes at the university and serves as the "recordkeeper" who keeps track of and manages the collection of more than 3,000 trees and landscape plants that make up the Fell Arboretum on the Illinois State University campus.

According to an account in "The Lewis Life of Jesse W. Fell," a biography of Fell's life written by Edward J. Lewis around 1900, that may be exactly how it happened. Lewis wrote, "Raymond Buchan of Osman set out most of the trees under Fell's direction." According to Lewis, Buchan said of Fell, "He was the best man I ever knew."

Fell may have needed help because of the number of trees he wanted to plant. Responsible for extensive tree-planting efforts from Pontiac to Clinton, Fell is perhaps best known for the tree-planting he accomplished in the Bloomington-Normal area, especially for the then-new ISU campus. In 1867 the Illinois State Legislature appropriated $3,000 for campus landscaping. Fell planted 1,740 trees that year on university grounds, and 107 trees the next; his goal was to have every tree and plant native to the state represented on campus.

Frances Milton I. Morehouse's biography "The Life of Jesse W. Fell," reports "Mr. Fell personally supervised all planting, and it is due to his great and loving care that of the trees suited to Illinois conditions, scarcely one has died in the half century since their planting. The original 12,000 trees were increased to 35,000 trees before many years."

Even today, the Fell Arboretum is home to several trees thought to have been planted by Jesse Fell—or under his direct supervision.

More than 90 species of trees, with different varieties in each species, are included in the trees and plants gracing

**The legacy of Jesse W. Fell continues 150 years after he envisioned a resource for the study of botany and forestry.**

**Fell Arboretum contains more than 3,000 trees and landscape plants—and 120 species.**

The Fell Arboretum. Schmidt said such diversity is unusual in the Midwest. Many campuses were planted mostly with one species of tree, so when pests or disease attack, the collection is decimated. Fell's commitment to diversity enables the ISU collection—more than 120 species have been inventoried across the entire campus—to withstand pest or disease attacks more successfully.

Fell's commitment to diversity demonstrated his belief that direct access to specimens of every plant and tree that could flourish in this area would provide a great resource to the study of botany and forestry.

His vision has been at least partly realized.

"The ISU quad is quite an exceptional planting of trees and is the biggest classroom on campus," Schmidt said, adding the quad is used for study by the agriculture department in the horticulture curriculum in landscape plants, as well as by botany classes.

More than that, the quad's trees provide a backdrop of beauty Jesse Fell was instrumental in helping to start at the university campus.

"One of the things incoming students comment about is how the campus looks," Schmidt said, "especially the beauty of the trees."

Maintaining that beauty is a huge job. Each week two students work three hours apiece making tags for the collection. The tags, which cost around $.25 each, consist of a brass plate with a thermal transfer label. Currently, approximately 120 species on the campus are tagged.

Those tags and the catalog of trees that Schmidt maintains help in managing the arboretum. Currently, between 80 and 100 ash trees on campus are considered vulnerable to the emerald ash borer. With a catalog of each tree's location, the university is easily able to keep track of how those trees are faring.

Schmidt's office in the Science Building has a drawing of Jesse Fell on one wall as well as a map of the campus from the 1940s created by engineer Harold Steinbrecher. The map of Illinois State Normal University (as it was known at the time) details the location of many of the trees then found on campus. Many of those trees are still present today; many of those that are gone have been replaced.

**A self-guided tour brochure helps visitors navigate through the Fell Arboretum, identifying species present, such as European beech (lower left) and sassafras (lower right).**

**Jesse W. Fell was committed to planting a diversity of species, a goal continued today by Illinois State University.**

On this 150th anniversary of Illinois State University, Jesse Fell's commitment to posterity is paying off. In Schmidt's opinion, several trees still growing on the quad may have been planted either by Fell himself or under his supervision, including a large catalpa in the south center of the quad, a pecan tree outside DeGarmo Hall and an Austrian pine near the site of Old Main, the first building on the ISU campus. Old Main was demolished in 1958, but the Austrian pine, which appears in early photographs of the building, still stands.

These trees can be seen on the Arboretum Walks Schmidt hosts three times each spring and fall. Schmidt welcomes members of the community as well as students to join him for an hour of walking and talking about various specimens on the quad.

On a recent tour, Schmidt began at the Sassafras Grove with a scratch-and-sniff session. Schmidt invited participants to scratch bark from a small branch he clipped from one of three sassafras trees just outside Hovey Hall, asking them to identify the smell.

Moving on, he demonstrated how much pollen a small Serbian spruce produces by shaking the tree's branches, stirring up a small cloud of pollen. Schmidt explained the spruce, located just behind a memorial to former ISU president Robert Bone, has flat needles, unlike most spruces. In the reproductive state, the tree is wind pollinated, producing two types of cones. In spring, the male produces pollen.

Nearby, a Colorado spruce has the square needles typical of a spruce tree.

"The university has a strong commitment to replace trees," said Schmidt. Each year the university cuts down 50 or so trees, but plants around 100 others. Usually trees are removed because a new building is going up, but the university tries to replace those trees when the building is completed. Care is taken to maintain the diversity Fell prized; patience is considered a virtue when trees are considered for planting.

"Fast growing is not the criteria you're looking for," said Schmidt. "It takes a long time to grow a 150-year-old tree. You have to plant it and wait."

That attitude echoes one of Jesse Fell's favorite sayings: "He who plants a tree (and cares for it) does something for posterity."

For more information about the Fell Arboretum, or for information about Arboretum Walks, go to the Fell Arboretum Web site at www.ilstu.edu/depts/arboretum, or phone (309) 438-2085.

Visitors are invited to take a self-guided tour of the arboretum. A brochure is available almost any time at the information booth on the first floor of the Bone Student Center, in the Biology Department at 210 Julian Hall or at the Facilities Management department.

**Conifers, such as the square-needled Colorado spruce, and hardwoods provide aesthetic diversity.**

North of the Bone memorial, Schmidt pointed out a bald cypress, a deciduous conifer similar to those found in southern Illinois cypress swamps.

Just off the quad, participants observed a common paw paw. Schmidt explained that paw paw trees have maroon flowers which turn down and that the fruit is the size of a potato. Paw paw trees like very moist woods, produce seed in fall, and exhibit clear yellow fall color.

Back on the quad proper, Schmidt led walkers to a European beech—copper leaf. The smooth-barked tree is self-pruning, evident by the umbrella form that produces shade so heavy grass won't grow underneath the tree; the heavy shade also causes inner branches of the tree to die, creating an open interior and the umbrella form.

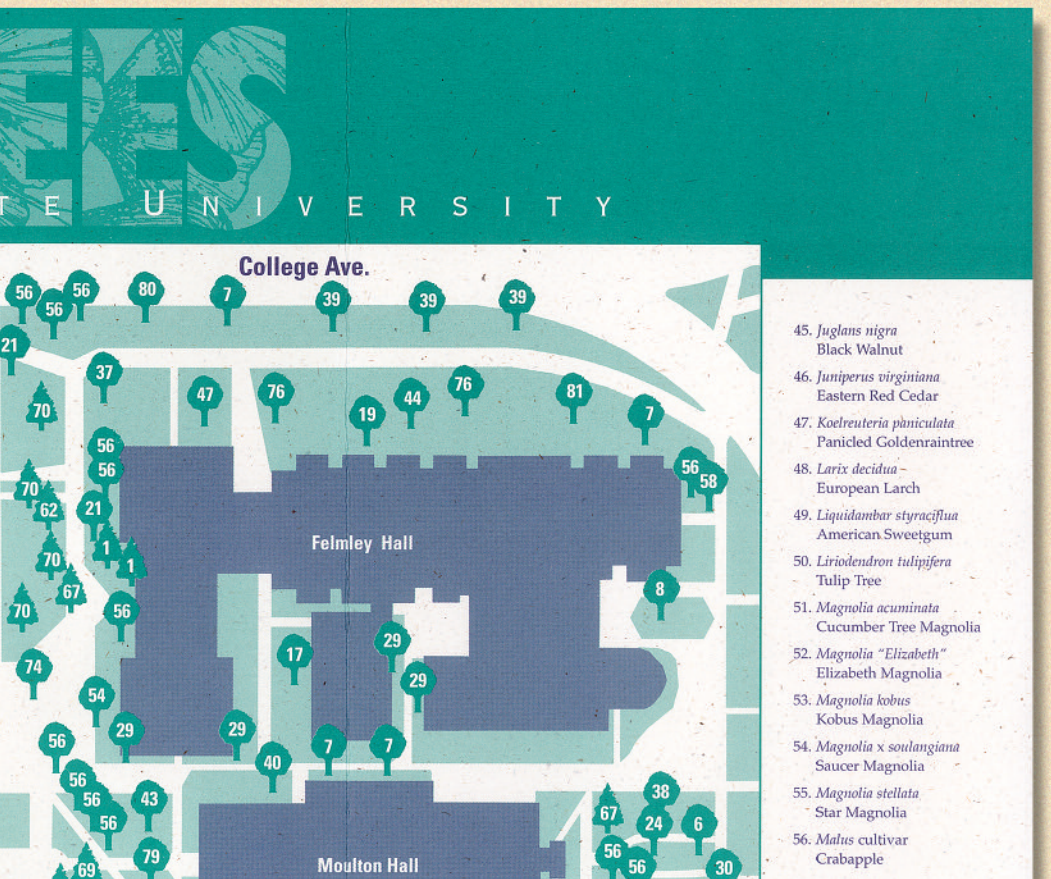
Near the European beech, Schmidt pointed out the Cultivar Legacy sugar maple. Two have been planted flanking the Old Main Bell. Because they are cultivars, they will grow, leaf out and color at approximately the same time.

Schmidt explained how cultivars are created: a grower observing field-grown specimens may observe particularly desirable characteristics in one specimen. By grafting that onto a compatible host, a specimen with the desirable characteristic is created and can be reproduced. The cultivar is named (in this case "Legacy") and buyers are assured of particular characteristics and performance.

ISU groundskeepers wanted symmetry around the Old Main Bell, which is why they chose the Legacy sugar maples.

Schmidt invited walkers to notice an Ohio buckeye, which commonly grows in the eastern United States. The buckeye grows next to a common horse chestnut, common to Europe. These two trees are related, but were separated by continental drift.

Jesse Fell may not have personally planted each of those first trees on campus, but his vision and commitment to tree-planting made the university he helped establish a place where students could learn by observation and study specimens up close and personally, all the while enjoying the pleasures of their diverse beauty.

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