

# American Sentry™ Linden

- by Travis Orback



One of the most famous groups of guards, protectors, or sentrys is the British Royal Guard.

These sentrys are distinguished by their traditional bearskin hats and bright red coats. It is impossible to tell one guard from the other as their standardized and distinctive uniforms suggest an always attentive and organized force.

Appropriately, the American Sentry™ Linden (Tilia americana 'McKSentry') has earned its name by displaying similar characteristics to the Royal Guard while being native to the Central and Eastern States of our country. It is distinguished from the species in many ways: its uniquely smooth gray bark, as a young tree, is like the clean and neatly-pressed uniform worn by a guard; its consistent, symmetrical branching and narrow, upright form simulates a sentry who is at the post and alert; its dark green foliage with white undersides represents a more practical than ceremonial form of dress for the patrol.

When a tree retains its cultural traits it becomes a benefit to the grower. As each British sentry relieves his fellow guard, called a changing-of-the-guard, new human traits become part of the security force. In contrast, a grower can expect the same traits in every American Sentry™ that is grown: the branches are arranged evenly around the trunk and at 45 degree angles; the tree transplants well and is canker-resistant.

Mr. Howard Kulke made this selection over twenty years ago and McKay Nursery (Waterloo, WI) trademarked the name in 2004. Linden flowers have been known to provide some of the best honey in the world, giving this tree the nickname "bee-tree," and American Sentry™ displays creamy white flowers in June that have a spicy aroma. Furthermore, this selection retains many of the outstanding characteristics of the species:

- it likes rich soil and a pH between 5.5 and 7.5
- it is a rapidly-growing tree with an extensive, lateral root system
- it is one of the hardwoods least-susceptible to late spring frosts
- it is classified as nitrogen-demanding (probably because it grows naturally on flood plains)
- generally takes ten to fifteen years, at earliest, to produce seed
- the cultivar is hardy to zone 3 and likes full sun
- has yellow fall color and grows approximately 55 feet tall and 25 feet wide

With its symmetrical branch placement, distinctive gray bark and uniform crops, American Sentry™ Linden is a low-maintenance tree every grower will love.



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Website Tips for:  
[www.carltonplants.com](http://www.carltonplants.com)

One step click for Tree, Shrub, Rootstock & Seedling availability. For catalog with prices the password is: bareroot

Retailer tip: Download unpriced catalog into your document file and print out the pages that are appropriate for the items that you carry from Carlton Plants. This can then be used as a reference source, minus pricing for your customers.

# Plantline



August 2009

A Newsletter from Carlton Plants LLC

## Old Dog, New Tricks

- by Allan Elliott



The process of staking is a major activity for most bare root tree growing nurseries. It is the single largest and most labor consuming production task performed at Carlton Plants. Until recently however, it is a process that had remained unchanged for decades.

Staking and tying trees correctly greatly influences overall quality of the finished product. The stake helps the tree to maintain a straight trunk as well as providing protection from the elements of wind, rain, snow and ice. The stake provides support for the tree while allowing flexibility to build caliper and strength.

Traditional staking products have consisted of galvanized steel, bamboo and more recently, fiberglass. They are available in sizes to suit everyone's particular needs ranging in diameter from 3/16" to 1" and heights of 2 feet to 12 feet or more. At Carlton, the majority of stakes used are 1/4" x 7' and 3/8" x 8' & 10' steel galvanized. Fiberglass stakes are used on a limited basis for tree varieties that have a history of being damaged by "stake rub".

Overall, the nursery places over a million stakes a year. These stakes will stay with the crop for several years.



Damcon HWD-370

Mechanization of this labor intensive and physically demanding process has long been a consideration. It was like a puzzle with various pieces being discovered and tested as much as ten years ago. But it wasn't until 2006 when we visited a nursery machinery exposition in Germany that it all clicked. There we found the Damcon HWD-370 3-wheeled tool carrier.

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Representatives

Several months of detailed correspondence, planning, drawings and photos led to a finished product being delivered in 2007.

A focus group consisting of four people from Carlton's shop and production area worked for a year to develop the concept into a workable process. We addressed tools, equipment, crewing, safety and supervision, economics, logistics and quality control, along with a hundred other details.

Modifications were made, supplies purchased and equipment fabricated to complete our plan and obtain the systematic approach we desired.

Management's encouragement and support kept the process moving forward.

Finally, in the spring of 2008 we hit the field putting everything to the test.

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### Open House Location Change

We look forward every year to seeing you, our customers, at our open house. This year August 19 is the date.

Tours will begin at our propagation facility this year and will be available all day.

Also this year dinner will be at our propagation facility. We will end the day with barbecued salmon, chicken, corn on the cob, salads and dessert. Dinner will start at 5:30 p.m.

So come have a glass of wine or beverage of your choice, sit back, enjoy the music and visit with your friends.

Hope to see you!



### About the process:

Lay out begins with a 120 HP high-crop tractor pulling a customized toolbar with five rippers to open a groove in the middle of the row. The toolbar also has three hitches to tow three stake trailers. As this unit moves down the row, stakes are pulled from the trailers and set upright into the groove made by the rippers.

Setting the stake in the correct position next to the plant is handled by another crew.

Driving the stake to the correct depth has always been a challenge, particularly when the soil is dry and hard. This has been addressed through the mechanization process. The Damcon tool carrier was outfitted with an air compressor, hoses and four swing-out overhead booms. These booms support tool balancers that attach to neumatic palm nailers with customized handles. The Damcon moves down the row supporting a crew of eight that uses the nailers to effortlessly drive the stakes into the soil to the desired depth.

The results and savings have fulfilled our expectations by speeding up the staking process, eliminating fatigue and lost time and reducing overall labor costs. Additional benefits have been realized by putting the Damcon to work on multiple row applications of fertilizer, granular herbicides and erosion control seeding.

Each fall stakes must be removed prior to harvest. We have utilized much of the same equipment along with new logistics to realize savings here as well.

Refinements of equipment, plans, and processes have continued in 2009 as we gain more field experience. Current efficiencies of about 30-40 percent have been realized for the staking and stake removal processes.



## State Street® Miyabe Maple

- by Travis Orback

State Street® Miyabe maple (*Acer miyabei* 'Morton') is an exceptional candidate for diversifying the urban landscape.

State Street® is on many ash replacement lists including those published by universities in Illinois, Michigan, Iowa, Indiana and Wisconsin. With the recent finding of emerald ash borer in Minnesota, this list will surely grow. Additionally, this maple is on many urban forestry lists. The cities of Boston (MA), Chicago (IL), and Denver (CO), the states of Maine and Nebraska and Cornell University recommend this maple. Its adaptability and hardiness make it a good candidate for commercial and residential plantings within USDA zones 4-8. It is more cold-hardy than hedge maple (*Acer campestre*) and more heat and drought tolerant than Norway maple (*Acer platanoides*).

The species is endangered in its native habitat, the northern island of Japan, Hokkaido. This durable and long-lived species commemorates the prominent Japanese botanist Kingo Miyabe (1860-1951).

State Street® was selected from the collections of The Morton Arboretum (Lisle, IL) where it continues to prosper at 60' high and 50' at its base. It grows 20-25' high and 15-20' wide in the first fifteen years and one can expect to see 6-12" of growth per year after establishment. It has excellent branching character, a uniform broad-pyramidal habit, superior heat and drought tolerance, clean foliage and good yellow fall color. Adding to its value is its excellent pest and disease resistance and non-invasive nature.



Photos property of Chicagoland Grows

