

# Plantline

April 2012

A Newsletter from Carlton Plants LLC

Our Coolers are Running until the first of June!

For last minute plant needs, contact your sales representative, our main office or our website for availability.

Rootstocks and shrubs can easily be shipped UPS.

## FLOWERING CRABS: OBJECTIONS OVERRULED

BY JOE DIXON

There is no group of ornamental deciduous trees that provide us with as many wonderfully diverse, all-season attributes as does that of the genus *Malus*. In the spring, flowering crabs provide us with a spectacular assortment of varieties and flower colors to choose from. In the summer, different varieties provide a foliage display with a richness of red to green and everything in between. In the fall and early winter, the foliage on many varieties gives way to a show of small, colorful, persistent, berry-size fruit that attracts song birds, and provides color to the landscape during the early dormant season. This genus also provides us with a very wide assortment of shapes and sizes to fit into any landscape; from below utility line streetscapes to condo and patio micro-landscapes.

For landscape architects, designers and urban foresters the best news is that by selecting the appropriate varieties, the old objections to using flowering crabs are no longer an issue. Through many years of varietal trialing, research and selecting, the three main problems that have plagued this genus for decades: 'disease susceptibility', 'messy fruit', and 'root suckering' have been resolved. To shed more light on this subject consider the following information.



Top grafted *Malus* Lollipop

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IPM: *Intentional* Pest Management

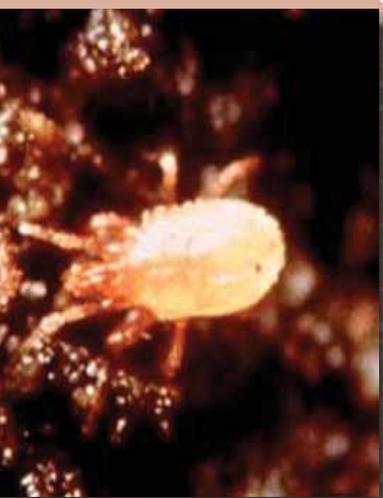
By Rhiannon Spaw



Aphid mummies



Phytoseiulus persimilis



Stratiolaelaps scimitus

As growers we are faced with a myriad of decisions on a day to day basis. Given the quantity and importance of many of these decisions, it is tempting to go for the quick-fix despite the potential for negative repercussions far into the future. Our land is our livelihood and we are obligated to act as stewards of the land.

Integrated Pest Management brings to mind a cloudy image of soft chemicals, organics, bugs and an inevitable reversion to traditional pest control methods. I believe the term *Intentional* Pest Management is more appropriate, as it clears some of the clouds and simplifies the theory. Scouting, prevention, and control – easy, right?

Prevention is where we can often do more harm than good. We like to think we know our crops, when the aphids and mites are going to rear their ugly heads and can therefore prevent them from establishing with a series of calendar-based, preventative sprays (plus there's no need to spend all that precious time scouting). This may be true to some extent, but the amount spent on labor and chemicals far outweighs the money saved by not taking the time to scout.

With that being said, the Propagation Department at Carlton Plants has begun to employ the power of the arthropod to pointedly (*intentionally*) prevent and control some of our common pests. As is the case in many propagation facilities, fungus gnats and shore flies can be abundant in our cutting and tissue culture acclimation facilities. This year we have decreased their populations dramatically to a very tolerable threshold by applying a predatory mite, *Stratiolaelaps scimitus* (formerly *Hypoaspis miles*) right after planting or sticking. *Stratiolaelaps* will feed on almost any larvae they find in the soil (including pupating thrips and black vine root weevil larvae!) and sustain

itself all the way into our fields. Not only has a proactive release of this voracious predator reduced the fungus gnat, shore fly and thrips populations, but it has also saved us a lot of time, money and heartache. It takes approximately two minutes to treat 500 ft<sup>2</sup> and costs approximately \$0.03/ ft<sup>2</sup>, or \$0.0014/plant!

For the spider mite-prone plants, we have used *Amblyseius fallacis* (another eight legged predator) with moderate success. A single application at potting will control the mite populations for the life of the plant. *A. fallacis* will feed on pollen when the spider mite populations can't sustain them as well as overwinter and reemerge seasonally. If the preventative step was missed or the populations surpass the established threshold, we use another predatory mite, *Phytoseiulus persimilis*, as a curative control.

Using beneficial insects to control aphids has proven challenging within our current pest management program. For example, the parasitic wasp *Aphidius spp.* does a great job of controlling an aphid population, but will only parasitize the species of aphid on which they were reared. The larval stage of *Aphidoletes aphidomyza* will decimate high aphid populations, but is incredibly sensitive to insecticide residues and drift. It is not to say that these are not feasible controls, but like most things, require a little more finagling to incorporate them into our current production system.

These are just a few of the beneficial insects that have found their way into our pest control arsenal. With time we hope to have a better understanding of their uses and how to further integrate them into the nursery. Until then our plants and our pocketbooks will continue to reap the benefits of these awesome arthropods. 🌱

# TILE-A-SAURUS

BY ALLAN ELLIOTT



**J**ust when you think you've seen everything, surprise! During the 2010/2011 winter, we observed poor drainage on one of our fields. Further inspection showed that during major rain events, the collection vault for several tile lines was overflowing into the road ditch. The next summer we proceeded to excavate to the tile mainline on the other side of the county road. The eight inch clay tile mainline was in good condition on the outside, but what lurked within was "the rest of the story". It was necessary to use a saw to cut along the tile joint/seam to facilitate the removal of a tile section. Little did we know we had severed the roots of a Populus tileasaurus. The eight inch tile was completely full of roots from a poplar tree which grew in the ditch about twenty five feet away. Roots from the

P. tileasaurus had worked their way into the tile openings and thrived on the moisture within the tile. They traveled both directions, under the road and into the neighbors' field for about fifty feet total.

It required several people, a backhoe and roto-rooter service a full day to extract the menacing Tilesaurus clog and replace the section of clay tile with new PVC pipe. All is now well and water is again flowing this winter.

Conversations with other nurserymen and tile installers revealed that this is not uncommon, even to the extent of nursery stock entering tile laterals within the nursery block. So beware of what may be lurking in your field that could render an expensive tiling system worthless.



Allan with P. tileasaurus

## Prunus Accolade

by Dick Bocci



**O**ne of the most underused plant species in the trade today is the Prunus (Flowering Cherry) and the many outstanding varieties available within this group. With their different forms and flower colors, why are more not being planted? One of the reasons may be because of the marginal hardiness factor for many areas in the U.S. and Canada. The Prunus serrulata varieties are hardy normally to Zone 5, while the species subhirtella is slightly hardier to Zone 4a or 4b.

Prunus sargentii (Sargent cherry) lends itself in satisfying the cold hardiness factor in flowering cherries. The sargentii, with true Zone 4 hardiness, when crossed with other species can bring the same hardiness factor to those new crosses. One cultivar that is not known as well as Kwanzan, Yoshino or

Autumnalis is Prunus x Accolade. Accolade's parentage of sargentii x subhirtella exhibits the excellent properties of both. It displays large semi-double flowers, deep rose-pink buds, opening to blush pink. The form is broad with horizontal spreading branches and will reach a height and spread of 20-25 feet. Accolade can be planted in Zone 4. This variety has shown no signs of borer or canker injury.

Prunus Accolade is a relatively unknown cultivar we feel should definitely be added to the list of ornamental trees grown for the home owner or commercial landscape.



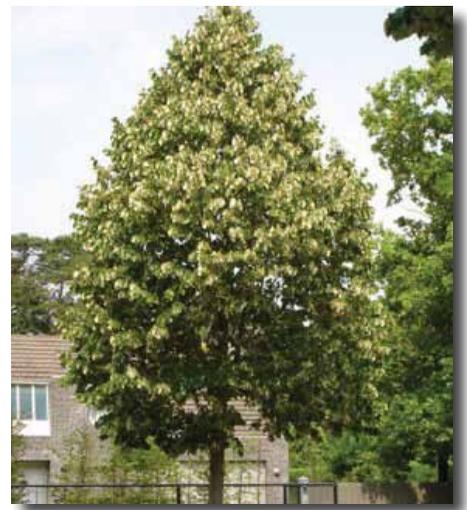
## NEW VARIETIES FOR 2012

### TREES

*Alnus x spaethii* Spaeth's Alder  
*Corylus avellana* Red Dragon (PAF)  
*Eucommia ulmoides* Emerald Pointe™  
*Koelreuteria paniculata* Golden Candle™  
*Liriodendron tulipifera* Aureo-marginatum  
*Malus* Pink Sparkles® (P.P. 12482)  
*Malus* Show Time™ multi-stem  
*Tilia tomentosa* Szeleste



*Alnus x spaethii*



*Tilia tomentosa* Szeleste

### SHRUBS

*Fothergilla major* Blue Shadow (P.P. 15490)  
*Hydrangea paniculata* Phantom  
*Hydrangea quercifolia* Ruby Slippers  
*Prunus incisa* Little Twist®  
*Weigela florida* Dark Horse (P.P. 14381)

### VINES

*Wisteria frutescens* Amethyst Falls



*Liriodendron tulipifera* Aureo-marginatum



*Corylus avellana* Red Dragon



*Malus* Pink Sparkles



*Fothergilla* Blue Shadow



*Fothergilla* Blue Shadow - Fall color



*Hydrangea quercifolia* Ruby Slippers



*Wisteria* Amethyst Falls



*Prunus incisa* Little Twist multi-stem form

The first objection, 'disease susceptibility', is solved by the rating of flowering crabs by their resistance to the four main diseases: 'cedar apple rust', 'fire-blight', 'powdery mildew', and 'scab'. When choosing flowering crabs, the first step is to identify and select from the varieties that are resistant to the diseases that proliferate in the ecosystem or location where they will be used. If wanted, varieties can be selected that have good to excellent resistance to all four pathogens.

The second objection, the 'messy fruit' issue, is easily resolved by selecting varieties that are non-fruiting, low-fruiting or persistent fruiting. Many of the older varieties such as 'Hopa' and 'Radiant', produce fruit that drop heavily in the fall; if planted on large estates or close to wilderness areas they do have value because they are not only attractive, but also provide valuable forage for wildlife. However, for areas where sudden fruit drop is a problem, non, low or persistent fruiting crabs are available in more varieties than ever before, particularly in the persistent fruit category. Persistent fruiting means that the fruit hangs on to the trees and mostly disappear before they drop, usually by virtue of being cleaned up by our feathered friends. Many persistent fruiting varieties have small brilliant fruit that range from bright red to a shiny gold, providing us with a show of color during the early dormant season.

The third objection, 'root suckering', has recently been resolved with the development and introduction of 'SproutFree' rootstock. If planted at the correct depth, below the bud or graft union, the tendency to sucker is virtually eliminated. This clonal rootstock also provides excellent anchorage and is hardy to USDA zone 3. Besides its obvious labor saving advantage, there is also less susceptibility to pathogens that can infect the tree through suckers.

By selecting the correct varieties, flowering crabs can now be utilized in our landscapes with the assurance that they will perform with all of their fabulous ornamental characteristics without the negative horticultural issues that were problematic in the past. More information can be found in the Carlton catalog or by contacting your Carlton Plants Sales Representative.



**Crabapples with persistent fruit**

- |               |                 |
|---------------|-----------------|
| Adams         | Firebird        |
| Cinderella    | Harvest Gold    |
| Donald Wyman  | Profusion       |
| Indian Magic  | Royal Raindrops |
| Indian Summer | Sargent         |
| Lancelot      | Snowdrift       |
| Pink Princess | Sugar Tyme      |
| Pink Spires   | Zumi Calocarpa  |
| Prairifire    | Red Jade        |
| Purple Prince | Royal Beauty    |
| Red Jewel     |                 |



Malus Cinderella



**Crabapples with little or no fruit**

- Bechtel - Klehm's Improved
- Marilee
- Springsnow
- Velvet Pillar



Malus Sargent Tina



Malus Springsnow on SproutFree

**Top Grafted Crabapples**

- |            |              |
|------------|--------------|
| Cinderella | Lancelot     |
| Coralburst | Lollipop     |
| Firebird   | Sargent Tina |
| Royal Gem  |              |



Malus Lancelot



Malus Royal Beauty

**Weeping Crabapples**

- Louisa
- Red Jade
- Royal Beauty

**Today I have grown taller from walking with the trees.**

**Karle Wilson Baker**

# Carlton Plants LLC Field Reps



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It's not too late to place additional orders!

If you have needs at this point in the year, we have you covered. Our coolers stay on well into June. The trees, shrubs, fruit trees, vines, roses and rootstocks all are in super shape.

There is still good availability in many varieties. You can see our latest mailing for that information or go to [www.carltonplants.com](http://www.carltonplants.com), click on AVAILABILITY and enter our password "bareroot".

Happy Spring Planting!!



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