



In the Shade

Vol. 32, No.1
May 2008

Miguel Pastenes is 2008 TTCC Champion



2008 Champion Miguel Pastenes (2nd from right) gets some help holding up his trophy (the Houser cup) from Steve Houser, after whom the award is named. On the left is TTCC chair James Tuttle and on the right is ISAT board member and former president Pat Wentworth.

The Texas Tree Climbing Competition, held in Fort Worth April 3 and 4, was a big success. Perfect weather aided greatly in bringing out a crowd.

A record number of contestants from Texas competed (33) as well as two from New Zealand, one from Missouri and one from Pennsylvania. The out-of-state competitors were not able to win the events, but scores were tabulated to evaluate their performance. Also, our first female competitor, Ramona Embry, bravely took on the grueling challenge of the five preliminary events.

The experience level of all competitors grows each year. Here are the results of the preliminary events:

Throwline:	1st Miguel Pastenes
	2nd Boni Buitron
	3rd Vicente Navarro
Footlock:	1st Miguel Pastenes
	2nd Abram Zies
	3rd Jimmy Saucier
Belayed Speedclimb:	1st Miguel Pastenes
	2nd Jimmy Saucier
	3rd Abram Zies
Aerial Rescue:	1st Abram Zies
	2nd Jimmy Saucier
	3rd Miguel Pastenes
Workclimb:	1st Miguel Pastenes
	2nd Abram Zies
	3rd Jimmy Saucier
Masters Challenge:	1st Miguel Pastenes
	2nd Vicente Navarro
	3rd Jimmy Saucier
	4th Abram Zies

Continued on page 5



<http://www.giffordtreeservice.co.uk/objs/PicusInfoEng.pdf>

Link to manual for Picus Sonic Tomograph – excellent tool though too costly for most people’s budget.

<http://cuttree4u.com/facts.htm>

Humorous web page – sad though because this guy is serious.

<http://edis.ifas.ufl.edu/EP316>

More of Dr. Ed Gilman’s excellent writings.

<http://edis.ifas.ufl.edu/EP309>

Dr. Gilman’s solutions for windy areas.

<http://edis.ifas.ufl.edu/FR173>

Dr. Gilman’s lessons learned in hurricane country.

<http://www.nahb.org/generic.aspx?genericContentID=19086>

Generic tree ordinances used by builders and HOAs.

<http://www.greenlaws.lsu.edu/>

LSU web site for landscape laws.

<http://www.whatsthatbug.com/>

Great insect ID site.

http://www.srh.noaa.gov/jetstream/lightning/lightning_max.htm

Basics information about lightning.

http://www.guzer.com/videos/v8_chainsaw.php

Humor – a V8 chainsaw!

ISAT Sponsors Houston “TreePrint” Workshop

The two- day Texas TreePrint Workshop was a great success with over 50 participants from all around the greater Houston region. The keynote speaker was U.S. Congressman Kevin Brady, who did an excellent job and was very supportive of trees and tree programs. He spoke of the benefits of trees and how we need to protect them in new developments and utilize them as a tool in meeting air and water quality requirements. The congressman also voiced his support and appreciation of TXDOT’s freeway tree planting program.

Another speaker on the first day was Jack Steele, Executive Director of the Houston Galveston Area Council. He spoke on the need for a regional approach to tree planting and urban forest management and indicated that HGAC would be one of the leaders in developing this plan. The Monday evening reception was hosted by the Houston Arboretum and Nature Center with a short presentation by the City of Houston’s Mayor, Bill White.

Participants were then divided into groups of five or six from the same or similar communities and participated in workbook exercises focusing on developing local tree planting and maintenance programs. Once the “Opportunity and Vision” were defined we were led through exercises in understanding the dollar value and return on the investment of trees over a 40-year period. This can possibly result in billions of dollars of benefits to the region over the life span of the urban forest. Over the two-day period there were many discussions over the need for a regional plan but, this being Texas, there was also a concern about a regional authority controlling or having to approve local tree planting programs.

At the end of the workshop the consensus was that we should form a TreePrint Coalition to be led by the Steering Committee. This coalition would work with communities to help develop planting programs and marketing materials, as well as being a source of support and information. The idea is to think regionally but act locally. In other words each community should develop its own plan based upon their needs, but will also think about how their program affects the region and will partner with other communities whenever possible.

The coalition will hold quarterly meetings and provide follow-ups by newsletter, tour various communities to observe their successful projects and programs, and provide a web-based resource as tool and forum to exchange ideas.

–Mickey Merritt

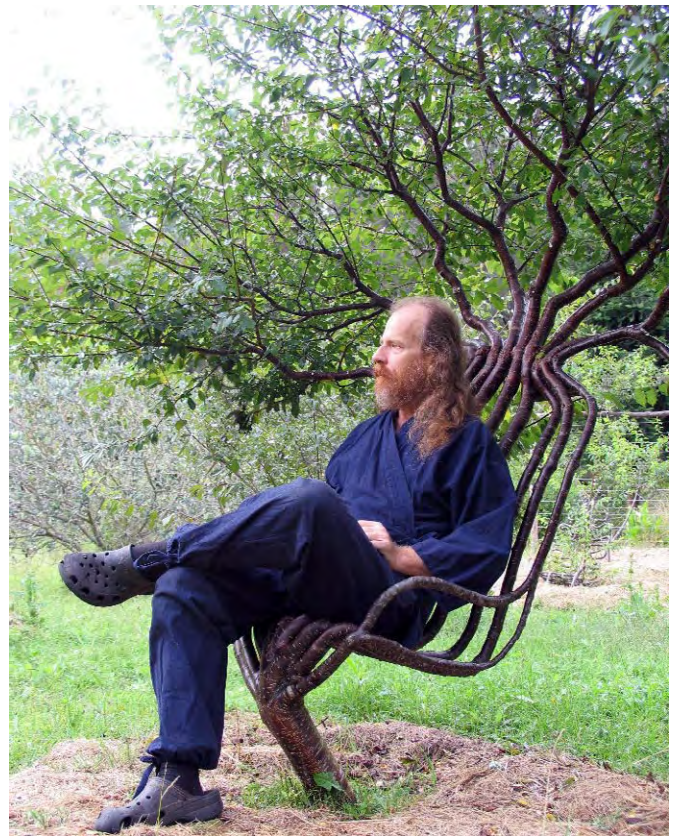
Australian Artist Makes Furniture with Living Trees

In 1986 Australian artist Peter (Pook) Cook had the idea of growing a chair. Now he and his partner Becky Northey spend their time shaping trees to grow in predetermined designs.

Peter applies his experience as a jewelry designer and sculptor to the designing and growing of the tree art he calls Pooktre. Some pieces are intended for harvesting as high quality indoor furniture, while others will remain living art.

The artists accept commissions for designs which they grow on their peaceful property in the mountains of Queensland, or as an alternative they will help clients design and grow something in the clients' own yard.

To see more of these living tree sculptures, including pictures of works in progress, and information on the artists, visit www.pooktre.com.



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The Giants are Coming!

by G.P. David, RCA/BCMA

In the January issue of *ArborNews*, we mentioned that we were seeing a fair number of Giant Bark Aphids, *Longestigma caryae*, hanging around in trees. This was noteworthy because it's unusual to see them in December.

Well, sure enough, by early March, we were seeing the first bark aphid hatches of 2008—several weeks earlier than normal—so we won't be surprised to see bark aphid populations explode this spring. Giant bark aphids mainly hit live oaks and red oaks in northern Texas, but we've also seen them on willow, elm, pecan, golden rain, wax myrtle, and river birch trees.

Colonies like the one shown can kill entire branches, especially on young trees. The aphids produce copious



amounts of honeydew, so one of the best ways to spot a problem is to look for the shiny honeydew below the infestation on lower leaves.



This pest usually goes away when the weather warms up, and natural predators, like ladybugs, sometimes provide adequate control for small infestations. Systemic Imidacloprid (Merit) applications help control the pest, but they often take four to six weeks to work. Horticultural oils and soaps may work, but spray applications of more traditional contact insecticides, like permethrin or cyfluthrin, may be needed to conquer this robust pest.

Other springtime pests to watch for: cankerworm on cedar elm, forest tent caterpillars on oaks, and elm flea weevil on elm.

ArborMAX Expands Coverage

ArborMAX, a well known name in arborist insurance, has announced an expansion into additional states and coverage offerings. ArborMAX has expanded their territory to include 31 states and their commercial coverage to include Property and Inland Marine (equipment). They have also improved the Workmanship Error endorsement that includes a broader scope of coverage.

Underwritten by Alternative Insurance Exchange (AIX) and insured by Nova Casualty (AM Best rating A- VII), the program is available through exclusive ArborMAX agents.

“We are very excited to expand the ArborMAX territory and be able to offer more coverages to our valued clients”

says Mike Rook, Vice President of ArborMAX. “Our expertise, competitive rates, and superior coverages, have led to tremendous growth since the ArborMAX began in 2005. We expect the new program will prove equally popular.”

ArborMAX coverage for tree and landscape contractors includes Workmanship Error coverage and Pesticide & Herbicide Applicator coverage. The Workmanship Error coverage has been improved to include specific wording for both errors & emissions and consulting.

To find out more about ArborMAX and locate an agent near you, please call Mike Rook at 1-800-577-6222 (X106) or mrook@max-programs.com



A competitor in the aerial rescue event.



L to r: Abram Zies, 4th place finisher in Masters Challenge; Vicente Navarro, 2nd place; James Tuttle; Pat Wentworth.

TTCC Results *(Continued from page 1)*

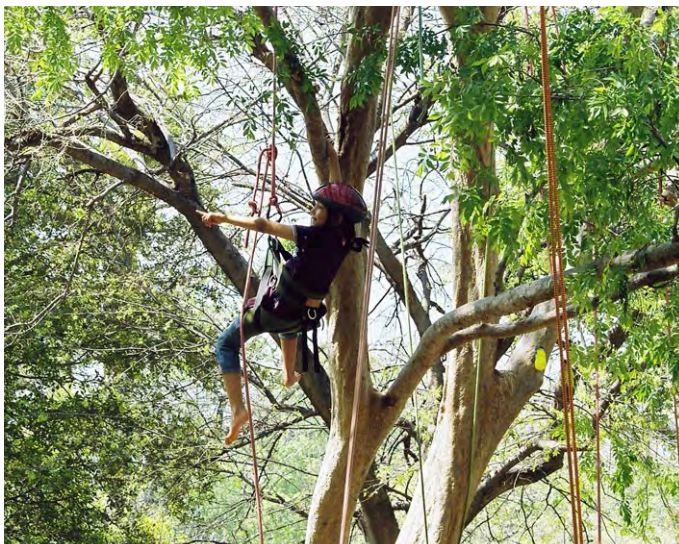
The four finalists included 2007 Defending Champion Vicente Navarro, Past Champion Miguel Pastenes, Abram Zies and Jimmy Saucier. The Masters Challenge was held in a very large bur oak and the work stations were set to be difficult. Defending champion Vicente Navarro was the first to climb and hit a top target on the first throw. Ultimately, past champion Miguel Pastenes scored a very narrow victory over Vicente. All four climbers put on a great show of skill and knowledge.

Miguel will represent the Texas Chapter at the International Tree Climbing Competition in St. Louis this summer. It will be the third trip to the internationals for Miguel, who previously took *first place* in the belay speed climb event. We certainly wish him the best of luck in bringing home some braggin' rights for Texas!!

— Steve Houser & Kevin Bassett



Miguel Pastenes is climbing and on the ground are (l to r) an unidentified observer and aerial judges Bill Koenig, Gene Gehring and Steve Houser.



Delighted young climber in the Kids Climb 2008 event.



Keith Brown competing in the Workclimb.



COMPONENTS OF DIAGNOSIS, PART 4: THE ROOT SYSTEM

We have reached the portion of the tree that is arguably the most difficult to investigate. Consequently, problems occurring here are the most difficult to diagnose. I hope that people following this series have seen the reason I chose to divide a tree into the sections that I did, and that there does appear to be some logic to it all.

Problems that arise below ground present us with a number of challenges. First, the vast majority of the root system is hidden and unavailable for inspection without some effort other than visual inspection. It is true that problems arising here usually express themselves above ground as well, and the best-case scenario is when a specific problem produces the same or nearly the same symptom in the foliage, for example.

Problems that originate in the root system are divided into two categories: problems that have a 'biotic' origin (those with a biological or living agent involved) or 'abiotic' (those with a non-living agent or cultural practice involved). You will often discover the answer to a problem is just as we discussed with problems in other portions of the tree – through a process of discovering what is not involved. You have to be very careful with root problems as you may find a biotic agent is involved, but only because one or several cultural practices have occurred that allow a normally saprophytic (organism living on dead organic matter) or weak organism to become pathogenic. It would be a mistake in my opinion to treat the biological agent without addressing the cultural variables that led up to colonization in the first place.

As you develop your skills of diagnosing root problems, you will find the vast majority develop as a result of an acute cultural practice (one or a small number of practices that occur in a short period of time) or a chronic practice (a practice that occurs often or regularly throughout a growing season or even over a number of years). These may not always be considered common practices but can be events such as an activity in and around a tree that results in some degree of root loss or root mortality.

An example of an acute practice may be a leaking irrigation line that is discovered after 3-4 days and results in saturated soil in and around a plant's root environment. In a related example, one could have a leak that goes undetected for a number of weeks or months. Even though both are irrigation leaks, the latter is considered a chronic event and the former acute.

To complicate the diagnosis, the damage a saturated soil

may lead to, may or may not manifest into a visual symptom in above-ground plant parts. Either event may also result in an imbalance allowing a secondary soil-borne organism to invade the stressed root system and become more aggressive as it colonizes the root system. This is often the case where *Phytophthora* species are isolated in a laboratory but only present because of a root environment that is too wet.

Without solving the moisture issue, no treatment is going to be effective long term. With this specific example, it would not be necessary to even treat the *Phytophthora* in my opinion, as it will be eliminated when the site is dried out. Again I have presented a specific example, but I am trying to make the point that you should not come to a conclusion too quickly without thinking through the process and asking yourself, when a specific biotic agent is discovered, did you investigate everything about the organism such as its life cycle, conditions that favor its presence, what may cause it to proliferate or what conditions are conducive for growth, development, and colonization of a tree's root system.

These imbalances could accurately be described as stress, and the significance would be directly related to the overall health and vigor of the remaining plant parts. They could also easily be the one additional factor that sends a plant into a spiraling decline in health and vigor.

Ongoing or chronic problems such as gradual loss of functional root tissue will usually result in a gradual reduction in the density or thickness of the canopy. The loss of functional root tissue can be the result of a biotic agent such as *Ganoderma lucidus*, or can be the result of paving over all or a portion of live root system that also results in a gradual loss of a plant's root system due to the depletion of oxygen in and around the root zone.

I realize that is a bit of an oversimplification, but the basic problem is the process of gradual root loss that may have originated from colonization by a soil-borne root pathogen or an intentional activity by man, with both resulting in very similar visual symptoms in above-ground plant parts.

Collection and inspection of root tissue as part of a diagnostic step has a number of limitations. Larger plants typically pose a larger number of limitations, the most common of those being collection of the wrong plant's root tissue. In any soil profile, a number of different plant roots can reside. You will discover if you have not already that a plant's root system is opportunistic. That is to say that wherever oxygen, moisture and nutrients are present,

Continued on next page

Pathologist's Corner

Continued from previous page

a plant's roots system will develop. A particular root has no knowledge of where the drip line of a tree's canopy is. Roots often develop way beyond this point and often intermingle with many different plant species having roots that occupy the same soil profile.

Unfortunately, to my knowledge there are not a lot of references available that compare roots of various species, showing them side by side to see what differences between them may look alike. As you gain experience by excavating root systems of various plants you will begin to notice the difference between various species. The more you pay close attention when you have the opportunity, the more quickly these skills will develop. Try to collect root tissue and take it back to the office or your crude lab; inspect it further with a dissecting scope to help develop accurate recognition. It is easier than you think to collect parts of roots for analysis for a particular pathogen in a particular species and have the results come back from the lab indicating a healthy root system because you collected the non-affected roots of the wrong plant by mistake.

Collection of roots for analysis by a diagnostic laboratory will have similar guidelines as when collecting above-ground plant parts. You should always try to get the suspected portion of a root system right at the area where affected tissue is still in contact with apparently healthy tissue. These areas are generally where a pathogen is actively moving from colonized tissue into non-colonized tissue. Most organisms are most active at these points, increasing the likelihood of accurate recovery of the causal agent. Care should be taken when collecting root tissue as it tends to dry out quickly and reduce the quality of the sample. I recommend consulting with the laboratory you regularly use for care instructions during collection and shipping.

There will be situations where collection of root tissue may not initially be necessary, as with a group of fungal organisms called Basidiomycetes. The fancy term can be thought of more simply as those organisms that often develop a reproductive structure that is visible with the unaided eye. Often times these structures are fungal conks or mushrooms that alone can be collected for analysis and often result in proper identification quickly. A large number of these live and feed on dead or dying plant parts. However, there are a number of them that can significantly damage plant roots and are considered quite aggressive.

An example of one of these is *Ganoderma lucidens*, common on a number of different plants and even more damaging when colonizing root systems of large shade trees. Some of these appear to be quite a bit more aggressive

than some literature will indicate. An arguable point is that they require stress of some type in order to successfully colonize a plant's roots system. *G. lucidens*, for example, enters roots at some point of injury that can be anything that creates an avenue into a root. This specific organism is difficult to deal with for it does not always produce a telltale conk or fruiting structure near the base of the affected plant until significant amounts of root tissue have been consumed. Its presence in a plant's root system can manifest itself in a number of ways, and I encourage you to pour over the available literature to familiarize yourself with this organism as well as others like it if you are in the tree care business. *Ganoderma* can significantly reduce a tree's stability and often threatens the safety of people and property.

There are a number of soil-borne organisms that can infect a plant's root system, and hardly any of them consistently produce the same symptoms in above-ground plant parts. This simply adds to the difficulty with accurately diagnosing root problems. It is difficult to write a series of articles on plant diagnosis and state specific symptoms for specific root problems whether biotic or abiotic, for symptoms can vary depending on species affected. They are also dependant on the health and vigor of the plant prior to an event. Soil type in which an affected root system grows is important and can cause symptoms to vary. Many root problems are brought on and develop because of the natural aging process, and may not be able to be managed at all.

Hopefully you have gotten something from tips here and in previous sections. If nothing else, I hope you realize the importance of paying attention to detail and collecting as much data as possible when you are charged with the task of diagnosing a plant problem. You will discover over time and the accumulation of experience that the proper diagnosis of a plant problem will often lead to a 'gee wiz' or where do you stack the firewood? No, not really, but close. A 'gee-wiz' is when you come to an accurate diagnosis but there is nothing you can do to prevent the next plant from becoming infected, and nothing to be done to improve the infected plant. This may result in some frustration, but you have gathered additional knowledge about a problem and may also have come to the realization that any remedial action might be a waste of time and money, the customer's money in most cases.

Please do not ever lose touch with the fact that other people own plants and trees that we all look at, and we are usually hired for a nominal fee to accurately diagnose a problem. Remember that tree and plant owners must find some "value" when paying for accurate diagnosis and treatment. The industry suffers when you use tree owners to cover your costs of experimenting, especially when they think what you offer is a valid and accepted practice within the industry.

"May the Forest Be With You"



Cool Tools by Patrick Wentworth

HEDGE TRIMMER SHREDS CLIPPINGS

While most of us probably don't do a great deal of hedge trimming, this tool might be of interest to those who do. It's designed for the folks who maintain formal hedges regularly.

The Garden Groom Pro / Max has a unique collecting system which makes the chore of hedge trimming far simpler. As you cut, none of the waste is left on the floor, thus saving you time and effort. This once laborious task, now enables you to spend more time enjoying your garden, instead of working in it! Revolutionary rotary cutting head design, not only cuts and shreds foliage, it actually Vacuums up the cut trimmings as you go, depositing them into the onboard bin or the large volume collection bag (included).

The shredding action reduces the waste by 10:1, making disposal of the clippings far easier. Shredded clippings

are also ideal for mulch or composting. Garden Groom Pro/Max is the world's only collecting hedge trimmer, that has a completely concealed blade. This feature virtually eliminates the risk of cutting the mains cable and significantly reduces the danger of personal injury. Consequently, this eliminates the fear factor that many gardeners face, when using a conventional hedge trimmer.



The Garden Groom Pro / Max is environmentally friendly in a number of ways:

- The shredding action reduces the clippings by 10:1, therefore reducing the number of refuse bags required to dispose of the waste.
- The clippings are ideal as mulch or for composting. Clippings from conventional hedge trimmers usually cannot be used, due to the length of time it takes for them to decompose.
- The Garden Groom Pro / Max promotes an overall healthier hedge, as the dead waste is not left in the hedge.

Features and specifications:

- Garden Groom was the Winner of the UK's Best New Gardening Product in 2004 & 2005
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Monday, July 28

Featured Keynote Address:

The Structural Dimensions of Tall Tree Growth

By Dr. Steve Sillett

(featured in the best selling book *Wild Trees*), Professor, Department of Forestry and Wildland Resources, Humboldt University, Arcata, California

Tuesday, July 29, 8:00 am – 9:00 am

Point/Counterpoint: The Role of Trees in Climate Change

Tree Planting in America: Rhetoric and Reality?

Dr. Greg McPherson, Director, Center of Urban Forest Research PSW, USDA Forest Service, Davis, California; and Shaul Cohen, Associate Professor, Department of Geography, The University of Oregon, Eugene, Oregon

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PLEASE VISIT WWW.ISA-ARBOR.COM/CONFERENCE FOR DETAILED INFORMATION AND UPDATES

Calendar of Events

May 30

Tree Health Care Seminar, Riverside Conference Center, Bastrop

Learn to determine if a tree is a candidate for topical, subsurface or vascular injected therapies. Seminar will also cover the systemic movement of injected compounds, and an overview of products and ongoing research on micro-injected products from Mauget. Presented by the Tree Clinic Pharmacy. Download information from www.isatexas.com or call Doris Nelson at 512-385-6604.

June 11 & 12

Identification and Management of Oak Wilt Workshop, Lady Bird Johnson Wildflower Center, Austin

The Texas Forest Service and the Texas Chapter ISA are hosting a fourth workshop for ISA Certified Arborists on how to identify and manage oak wilt. Each participant that successfully completes the training will be awarded a Certificate of Training Completion. Registration is available online at www.isatexas.com. For more information contact jhouser@tfs.tamu.edu.

**June 11 (Austin) & 12 (Grand Prairie)
Eco-System Restoration Conference**

For details on these one-day workshops, visit <http://www.arborday.org/shopping/conferences/brochures/rne/2008/index.cfm>

July 26-30

84th Annual ISA Conference and Trade Show, America's Center Convention Complex, St. Louis, MO

Visit <http://www.isa-arbor.com> for conference updates.

September 24-26 (Details TBA)

The 29th Annual Texas Tree Conference, "Trees for the Future," The College Station Hilton, College Station

More information coming.

November 5 - 9, Society of American Foresters National Conference, Reno, Nevada

The theme is "Forestry in a climate of change."

Keynote speaker will be Michael J. Walsh of Chicago Climate Exchange (CCX), North America's only active, voluntary, legally binding integrated trading system to reduce emissions of all six greenhouse gases. Visit:

<http://www.safconvention.org/natcon-08/index.cfm>

January, 2009 (Location and Dates TBA)

Arboriculture 101 Course

Another opportunity to prepare for the Certified Arborist Exam or just brush up on your tree skills. This four-day short course is designed to provide you with an in-depth knowledge of how to care for urban trees. Dr. Todd Watson, an ISA Board-Certified Master Arborist, integrates research and practical experience in his teaching style. For details go to www.isatexas.com or contact Dr. Watson at 979-218-0783.

Amarillo Hosts Successful Tree Workshop

The City of Amarillo recently had its 4th Annual Tree Care and Safety Workshop. There were 77 attendees who learned about TDA inspection procedures, tree planting, pruning, handling equipment properly, accident prevention, emergency response in tree care, and tree diagnostics. The keynote speaker was Don Blair, author of the landmark publication, *Arborist Equipment* as well as dozens of feature articles for *Arbor Age* and *TCI Magazine*. He currently serves as a Director of the ISA and is also the vice-chairman of the ANSI Z133.1 Accredited Standards Committee.

Besides the knowledge that was gained, attendees were treated to a hot lunch and 10 CEU s were made available from the ISA (5) and from TDA (5).

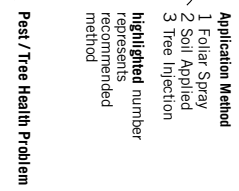
—Brian Scott



Rainbow Treecare Scientific's Solution Center covers you from A to Z

Rainbow Treecare Scientific is designed to serve arborists. Our new **Solution Center** is staffed with specialists who provide training and sales support for tree health care products. Our company was founded in arboriculture, so we can also help with your questions about adding services, profitability, and marketing to clients.

A Xylect Aphids 1 2 3 Fall application provides control next season.	F Copper hydroxide Fireblight 1 Prune below infected tissue in winter. Spray in dormant season and at full bloom.
B Xylect and/or Bifenhrin Bronze Birch Borer 1 2 3 Attack weak, stressed trees. Mutch, irrigate, and promote health to prevent this pest.	G Spinosad Acephate Gypsy Moth 1 3 Spray at early instar stage. Broad programs often use <i>Bacillus thuringiensis</i> .
C VERDUR Macro-infuse in fall for multi-year green up. Combine with soil decomposition, fertilization	H Xylect Hemlock Woolly Adelgid 1 2 3 Apply soil applications >60 days prior to fall feeding. Re-treat when suppression fails.
D Arbotect Macro-infuse to protect for 2 to 3 seasons. Does not stop root graft infection.	I Cambistat Prevention Air Tools Injured Roots 2 3 Air tools decompact soil. Blend in organic matter and mulch over the top.
E Xylect and/or Bifenhrin Emerald Ash Borer 1 2 3 Annual preventive applications work best. Highly infested trees may be difficult to save.	J Xylect and/or Bifenhrin Japanese Beetle 1 2 3 Adults feed midsummer; grubs feed on roots until October.
K Fertilizer Deficiency 2 Essential element and macronutrient.	N Chlorothalonil Needlecast 1 Requires two applications: one at 1/2 candle extension and one at full extension.
L Spinosad Acephate Lepidoptera 1 3 Foliar spray works best for early instar caterpillar stages.	O Alamo Oak Wilt 3 Protect healthy oaks within root graft distance of infected trees. Save infected white and bur oaks.
M Aracinate LUCID Micro-infusion with M3 infuser, or foliar applications combined with horticultural oil.	P Pinetect Pine Wilt Nematode 3 Treat preventively every other year prior to May 1.
S Arbotect Macro-infusion suppresses symptoms for 3 seasons.	R Chlorothalonil Rhizosphacra 1 Requires multiple years of treatment and cultural practices.
V No Known Cure Verticillium Wilt 3 Delay symptoms by proper pruning, watering, and fertilization. Rainbow is testing treatments.	T Xylect and/or Bifenhrin Two-Lined Chestnut Borer 1 2 3 Attacks weak, stressed trees. Mutch, irrigate, and promote health to prevent this pest.
W Xylect Weevils 1 2 3 Fall application provides control next season.	X BACASTAT Annual application of Bacastat suppresses symptoms of bacterial leaf scorch.
Y No Known Cure Yellow 1 Difficult to identify. Set low expectations with homeowner.	Z Bifenhrin Zimmerman Pine Moth 1 Apply to trunk and main branches in spring and again midsummer.



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from ISAT members
to all the hard working
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and volunteers
that dedicate an
enormous amount of
time and funds to put
on an outstanding
Texas Tree Climbing
Competition year
after year!!!
*See TTCC article
on page 1.*