



The Feeder Tube by Mauget

AUGUST 2012

Historic Drought Ravages Parts of U.S.

By: Jerry Pulley - Tree Pharmacy, Austin, TX

As natural disasters go, drought is the least exciting, boring actually. No warning sirens wail. There's no traffic jam on the evacuation routes. No one runs to the storm shelter. No one runs from a drought. City dwellers are often not aware of the existence of one until it is well under way. The news media is just now showing Midwestern states corn crop that is lost to the current drought. The farmers, though, have been keenly aware of the extraordinarily dry conditions since last winter.



We Texas folk suffered our unprecedented drought last year. In October 2011, 88% of the state was classified in the "exceptional drought" category. Less than 15" of rain fell across the entire state. It was the driest year in recorded Texas history. Dendrologist reported it to be the single driest single year since the 16th century according to tree ring studies.

The 2011 Texas drought was more economically disastrous than tornados and hurricanes. Agriculture losses approached \$8 billion. Statewide cities enacted stringent restrictions on outdoor watering. Lawns died first, then the previously irrigated shrubbery, then the trees. Millions of trees were lost. By October after the 95th day of above 100 degree temperatures the drought had become more than an inconvenience to urban dwellers. My phone began to ring, but arborists, like farmers, are helpless to alleviate the distress of drought. No procedure, no compound is of value without water.

By spring of this year sustained rains began to improve environmental conditions but plant condition, however, remain dire. A full year of minimal photosynthetic activity has left our trees with dismal carbohydrate reserves. Pest infestations are unprecedented, foliar and vascular infections are rampant.

My efforts to restore tree health can be categorized as 1) minimizing stress and 2) improve growing conditions. I attempt to minimize pest and disease pressure thus maximizing the available energy for growth and repair rather than defense. Imisol® and Abasol® are major components of my prescriptions this year.

Of the four components required for photosynthesis I have little control over sunlight, water and CO₂. I can however, insure that the essential nutrient elements are available. I have ordered more soil tests this year than any year previous. Nitrogen appears to be the most limiting element, but I have relied heavily on Inject-A-Min® Mn.

Pray for rain.

Calendar of Events:

Landscape Expo
Long Beach, CA
October 10 - 11, 2012
Booth # 631

GIE + Expo
Louisville, KY
October 24 - 26, 2012
Booth #3008

Tree Care Industry Expo
Baltimore, MD
November 8 - 10, 2012
Booth #1306

Golf Industry Show
San Diego, CA
February 6 - 7, 2013
Booth #5322

Fall is the 'New' Spring for Injection Treatments

By: Marianne Waindle

Don't let your business fall behind at the end of this season. Trunk injection options for early spring leaf disease, quick recovery of drought damage with fertilization, and in some cases insecticide treatments can be most profitable if done in late summer or early fall.

Yes, you can allocate your labor more efficiently throughout the year by switching traditional spring treatments to later in the summer while water movement is still active. Sycamore anthracnose, apple scab, Tubakia leafspot, and cankers such as Botrypshaeria of madrone are examples of diseases managed with early fall applications of ArborFos®.

Trees that have shown drought stress from this summer's heat spell or other types of soil stress will show very good recovery the following season with fall fertilization of Stemix® Plus or Inject-a-min® Manganese. Applying the fertilizer in the fall allocates resources towards the root system and also provides quicker color response the next year.

Evergreen trees such as hemlock, spruce, pine or more tropical species such as eucalyptus that are infested late in the season with tough-to-control insects such as woolly adelgid, spider mites, or lerp psyllid should be treated immediately and not the next year. These trees will accumulate the insecticide in the youngest foliage, since they do not drop all foliage at one time, and the product will be in place for the next spring crop of hungry juveniles. Deciduous trees (drop all leaves at one time) like maple or ash would be better treated in the next season.

So go ahead, plan to smooth out the labor demands of next season by getting started now. You can then continue to capture all of your 2013 spring revenues with the confidence of using the Mauget line of tree injection technology.

Bacterial Leaf Scorch

Bacterial Leaf Scorch (*Xylella fastidiosa*)

continues to spread, particularly in the Mid-Atlantic States. BLS affects a number of different trees including Elm and several species in the red and black Oak group. Symptoms begin to de-



velop and appear in mid-late June and increase in severity throughout the summer. Scorch appears as an irregular, scalloped browning along the leaf margin and may be bordered by a yellow halo. As the browning spreads, leaves may curl and drop. Symptoms recur each year and spread throughout the tree's crown resulting in branch dieback, crown decline and eventually death.

Mycoject® Ultra has done an outstanding job of suppressing Bacterial Leaf Scorch in oaks, sycamore, olive and numbers of additional trees that continue to test positive for this leaf hopper-vectored disease! New cases brought to Arborist's attention are treated when symptoms appear in mid-summer. Symptoms from existing infections can also be suppressed with April/May injections that result in less dieback and defoliation. Soil systemic application of Imidacloprid, beginning as early as October, will carry over into the next season to assist with hopper feeding. Be sure to apply the correct amount of insecticide per size of tree for insect management.

Please be aware that the Mycoject® Ultra formulation does not have the long shelf life as other Mauget products. It is recommended that Mycoject® Ultra be used within 6 months of the container-stamped packaged date.

Notes From the Field - The Midwest and Northeast

By: Jim Rollins

Following the mild winter and early spring, there has been much speculation as to what effect this weather pattern would have on our 2012 plant health care programs. The predominant consensus was that we would experience insect pressure that is both earlier and heavier than normal. Throughout much of the Midwest and Northeast this does appear to be the case. Applicators are reporting heavy insect pressure that is running anywhere from two to four weeks ahead of what is considered normal. Because of the unusual winter / spring weather, professionals are timing their applications more to actual degree days and less to the dates that they have encountered insect pressure in the past.

Although the majority of Mauget products are microinjected during the spring and early summer months, trees may be successfully injected throughout the summer months. The key to success is to inject trees when they are actively transpiring. Usually the summer weather conditions are favorable for active transpiration. The factor that presents the greatest potential problem is insufficient soil moisture. A tree cannot continue to transpire rapidly if its water loss is not made up by replacement from the soil. It is always a good idea during dry weather, to require homeowners to thoroughly water their trees both before and after summer microinjections.

Summer Tree Stress

The summer months can be tough on a tree. The hot, dry weather, severe thundershowers, insect and disease pressure can all create stress on a tree's overall health. If not adequately addressed, these stress conditions can result in a decline in tree health making it susceptible to additional secondary health problems. A timely microinjection of Mauget fertilizer can help trees recover from summer stress. Microinjecting fertilizer is a fast and efficient way to get nutrients into a tree.

Mauget offers two very good fertilizer choices, Stemix® Plus and Vigor 53®. Stemix® Plus is a complete fertilizer which includes nitrogen, phosphorus, potassium along with micronutrients. Stemix® Plus is effective at promoting new foliar, cambial and root growth. Vigor 53® contains phosphorus and potassium. It has been specifically developed to help trees that are suffering from environmental and other types of stress. Vigor 53® may be used in areas where there are concerns of phtophora root rot. It is also used to help trees recover when their roots have been damaged. As we move into cooler temperatures and rainfall it is an ideal time to help stressed trees by microinjecting either Stemix® Plus or Vigor 53®.



"I think we need to get another opinion, Charles. He says what it needs is a triple bypass."

We're Not Just Capsules Anymore!



Notes from the Field - The West By: Marianne Waindle

This has been a very good year for Plant Healthcare recovery in the Western Region. It is not to say that disposable income has risen, on the contrary, but many customers are realizing that treatment is more economical than tree removal. In areas where shade is precious and electricity becomes more expensive, keeping healthy foliage on those trees actually saves money.

Mycoject® Ultra for Fireblight management has been very successful and treated trees have shown a deeper green color than untreated trees. The new liter line of Mauget chemistry, such as Imicide® Hp/Abacide® 2 Hp/Arborfos® Hp, has also been quite successful as arborists discover additional tree injection devices. Growth of the Hp line is expected to increase exponentially in the next few years.

The wild fires that ravaged the inter Mountain west such as Colorado, Montana, and Idaho are the unfortunate result of heavy Mountain pine beetle attacks that have killed hundreds of thousands of pine trees. Mauget has been working to register a product that will surpass our current Inject-a-cide® (MSR) for bark beetle management. We are very close to announcing this new option and can share with you that this insecticide will provide up to 2+ years of suppression with a single trunk injection treatment. Where beetles carry fungi to feed young larvae, data is trending towards suppression of blue stain when mixed with Tebuct® 16.

Look forward to the New Year with even better solutions for healthy trees from Mauget!

Ask Ann: By Ann Hope

Q. We recently purchased several cases of Imicide® and noticed it is purple. Is that normal?

A. Yes! The new purple color of Imicide® is completely normal! The formulation for Imicide® was recently improved upon to be more soluble in water, thereby allowing it to move more efficiently and effectively through the tree. This faster uptake allows you to maximize the speed at which you complete your treatment! The new purple color also allows the applicator to easily see if the material has drained completely from the capsule! *Ann Hope is Mauget's Technical Support Representative for Southern California. Please email any questions to Ann at: ann@mauget.com*



MARKETING & PRODUCTION REPORT

July 2012

By: Nate Dodds

After the seasons fast start business had been brisk up until the devastating drought hit the mid and eastern part of the country. Even with that we are well ahead of last season YTD.

We are losing one of Mauget's original flagship products. Inject-A-Cide® is in its second year of termination in all states except California where it is in its first year. This means that this product must be clear of distribution channels by 12/31/12 except in California where it must be clear by 12/31/13. Inject-A-Cide® was registered in the mid 1960's and has served as a dependable treatment for many insects particularly bark beetles. It has been Mauget's intent to explore a replacement for this highly toxic danger labeled organophosphate material. With work being done in cooperation with Texas forest service we feel confident we have such a product that will provide multi season protection for a variety of bark beetles in conifers. More news on this in coming months.

Liquid Loadable formulations of Imicide® HP, ArborFos® HP, Abacide® 2 HP, Stemix® Plus, Inject-A-Min® HP and Mycoject® Ultra HP are all having increased demand by our plant care professionals. A field mixing compatibility chart is being developed by our research department to provide guidance and recommendations for field mixing of different products for a single application.

We thank our distribution partners and their clients for the great support we have received this season. Let us know how we can improve our support of you.

Christmas Trees Hit Hard By Drought

FAIRBANK, IA (KWWL/NBC) - As the summer heat continues the holidays might be the last things on the mind, but this year's drought could already have some negative impact on the Christmas season, mainly the iconic Christmas tree. Bob Moulds owns Wapsie Pines Tree Farm in Fairbank, IA and loves his job. Unfortunately, this year has been especially tough due to the drought. "We started planting trees on our farm in 1980 and fought a couple of bad years but this is by far the worse we've seen," Moulds said.

Moulds says the most popular Christmas tree, the fir tree, has been hit the hardest by the heat and drought. Crop losses have been significant. "Most of our losses are in this year's planting. And in this particular area over 50 percent. And before it's over I think almost all of them will be gone," Moulds said.

Moulds had taken extra steps already for the shortage of trees his farm will see in the future. "We've ordered extra seedlings for next year and we will just have to try and make up the difference because in about eight years from now we'll probably have a little gap in the number of trees we have available," Moulds said.

Iowa isn't the only state that will suffer a Christmas tree shortage. "A lot of the fir trees that are sold in retail outlets in Iowa come from Wisconsin and Michigan, some of those areas. I was north of Madison where they raise a lot of firs a few weeks ago and I know they lost everything they planted," Moulds said.

The good news is that this year's tree harvest will be okay but in seven or eight years, we will likely see the droughts impact.



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Please contact Mary Peters—
Newsletter Editor
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suggestions or topics you would
like to see in future issues

Rugose Spiraling Whitefly (*Aleurodicus rugioperculatus*)

Rugose Spiraling Whitefly was first found in South Florida in 2009. At the time it was primarily affecting Gumbo Limbos and was originally dubbed Gumbo Limbo Whitefly. Since then this Whitefly species has proven to have a broad range of plant host including trees, shrubs and palms of numerous species.

Spiraling Whitefly is above all a nuisance issue and is not associated with being a plant killer although if left untreated the plant material will suffer and decline. The major issue is the prolific amounts of honey dew this Whitefly excretes and the subsequent sooty mold. Often the honey dew is the first symptom a tree owner will see before they realize they have a Spiraling Whitefly problem. Anything below an infested tree will become covered in the sticky honey dew and washing the honey dew off will only provide temporary relief of a day or two before it becomes covered again. Pools are affected by the honey dew as well and will turn cloudy.

It is chiefly in the young stages of Spiraling Whitefly that the feeding damage and honey dew occurs. The tree species most commonly affected by Spiraling Whitefly are thus commonly associated with young Whitefly development. A few stray mature Spiraling Whitefly can be found on almost all plants and you may see the telltale "spirals" but the plants that are not breeding grounds for the Whitefly will not see significant injury or honey dew/sooty mold accumulation.

List of commonly affected plant species includes but is certainly not limited to:

Coconut Palm
Adonidia Palm
Areca Palm
Bird of Paradise
Banana
Gumbo Limbo
Black Olive
Mango



There are several ways to identify if you have Spiraling Whitefly:

- Actually seeing the large, slow flying Whitefly. It is one of the largest of the Whitefly species.
- White "spirals" on the underside of leaves and palm leaflets.
- Flocculent (white fluffy material) on the underside of leaves and palm leaflets.
- Congregations of adult Whitefly on the underside of leaves and palm leaflets.
- Honey Dew and sooty mold on or below a tree.
- Cloudy pool.

There are several methods of treatment including contact spray, basal bark treatment, drench and trunk injection.

Many tree owners are now specifically requesting trunk injection to get rid of Spiraling Whitefly. There are numerous benefits to trunk injection.

It works fast. Within 12 hours of injection on a palm the Spiraling Whitefly will begin to die off. We refer to it as "snowing whitefly." For tree owners that are having serious honey dew problems the speed in which this method works is especially useful when compared to drench applications that can take weeks before they are effective. The production of honey dew stops almost immediately although trees that are already heavily infested with honey dew will continue to drip the substance for some time after the treatment.

Application time. It takes a minute or two to treat a palm tree using only one injection site.

It is very clean. The insecticide is injected directly into the trunk with no chemical overspray. The applicator stays very clean and does not have to wear extensive PPE that can be hot and cumbersome. Long sleeves, pants, gloves and eye protection are required.

Beneficial insects are not harmed. Direct contact sprays kill beneficial insects feeding on the Whitefly and reduce the overall beneficial insect populations.

No leaching or run-off. Drenches and sprays can get into sewer systems and eventually waterways. With trunk injection all of the material is placed directly into the tree.

Long residual time. Treating this insect is still a fairly new process but it is expected to last for at least 6 months with longer results possible.

Cost. Trunk injection is an extremely cost effective option, often costing much less than typical drenching and spraying techniques.

How we treat a Palm

Trunk injections using Imicide® Hp and the Tree Saver Injection System or other trunk injection systems has proven very effective in immediate and lasting control of Spiraling Whitefly. We begin by drilling a hole into the palm at a slight downward angle and then inserting our valve into the cavity and seating it by tapping lightly with a hammer. Using a syringe with a hypodermic needle attached we inject the Imicide® Hp through the valve into the palm. The dose is based on the size of the palm- 1ml per inch DBH has proven very effective. The average palm receives approximately 12-15ml of Imicide® Hp and this is done through one injection site 99% of the time. That's it. A minute or two and your done.

If you are interested in treating your trees for Spiraling Whitefly with trunk injection products give us call. We can offer you our advice from real life practical application experiences. ISA Certified Arborists on staff to answer any questions you may have.

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