

Combatants in the War Against Citrus Greening May Have Some New, Safer, All Natural Weapons



Results from testing recently conducted by a division of Texas A&M University in Weslaco, Texas, seem to indicate that two 100% botanically derived nano-colloidal agricultural soaps may prove as effective in the battle to control citrus greening as a leading petroleum derived pesticide – but without the side effects or liabilities.

In head-to-head tests with a conventional petroleum derived synthetic pyrethroid, **Citrus Save-R™** and **R.S.V.P. Plant Scrub Initializer/Booster™**, two all-natural, totally non-toxic nano-colloid agricultural soaps achieved Asian Citrus Psyllid (ASP) population reduction levels that rivaled the toxic product. **Citrus Save-R™**, the stronger of the two safer products, showed



substantially higher effectiveness in the beginning but was later matched by the **R.S.V.P. Plant Scrub Initializer/Booster™**.

In May of 2009, Dr. Mamoudou Setamou, internationally known entomologist and assistant

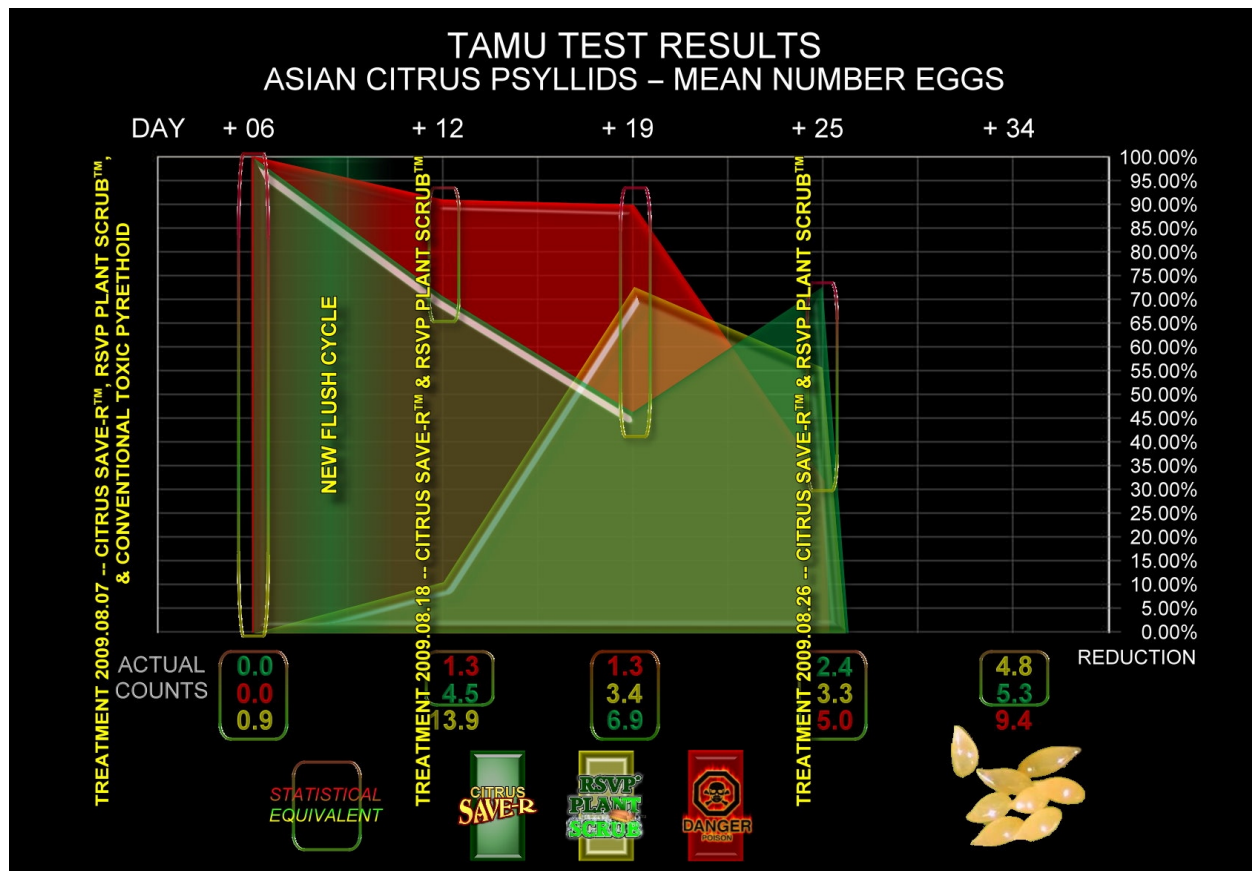
professor at Texas A & M University in Weslaco, Texas, became intrigued with the notion that an all-natural surfactant might be worth testing against a conventional pesticide in looking for a means to control citrus greening. When seasonal conditions favored the expected emergence of fresh flushes – the trigger for psyllid outbreaks – test were conducted¹ on “Rio Red” Grapefruit trees in August and into September of this year at the Citrus Center Research Farm, Texas A&M University-Kingsville Citrus Center, in Westlaco, Texas.²



Citrus greening (*Huanglongbing* or “yellow dragon disease”) is caused by bacteria which attack the nutrient systems of citrus trees, producing fruit that is asymmetrical, thick and heavy skinned, bitter, and commercially useless. Left unchecked, analysts fear that it could totally destroy the annual multi-billion dollar US citrus industry within the next five to ten years.

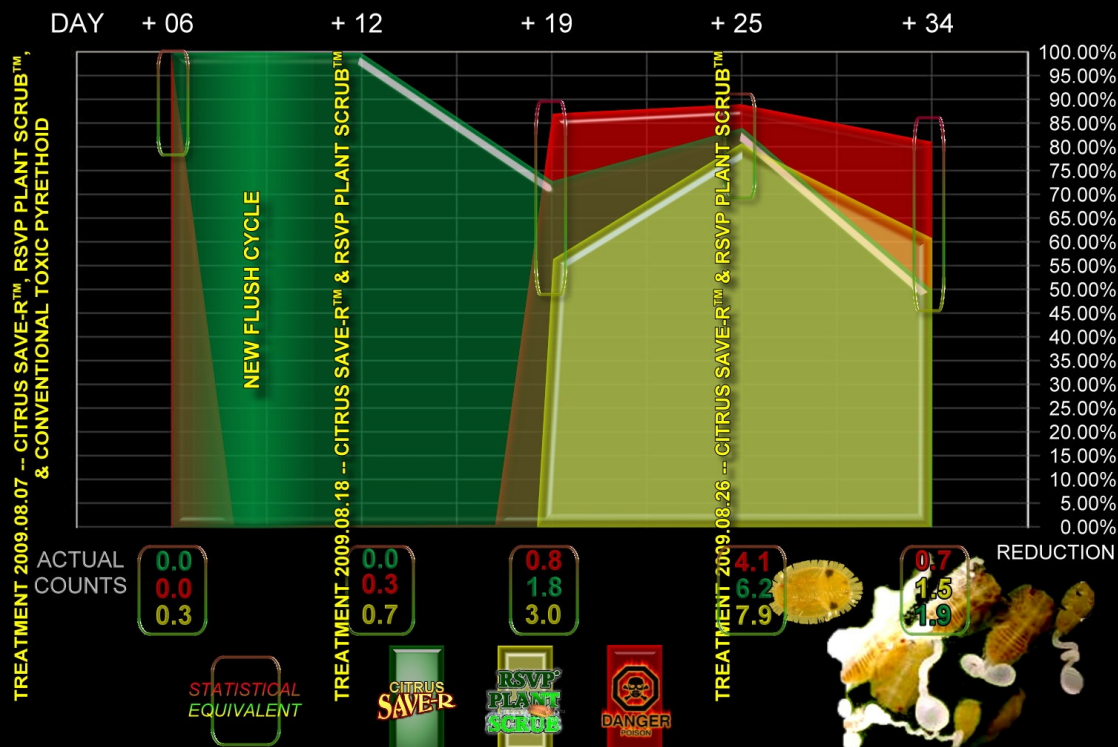
With no known cure for citrus greening, the focus has been on controlling population densities of two species of psyllids known to carry and spread the devastating disease. Currently, toxic pesticides, mostly neurotoxic pyrethroids, have been either the weapon of choice or of necessity in that struggle.

But it appears that *Citrus Save-R™* and *R.S.V.P. Plant Scrub Initializer/Booster™* represent a new class of weapons that has been added to the arsenal which achieves similar levels of control but in an entirely different manner altogether. In the long run, it may be more effective. And it assuredly will be safer.

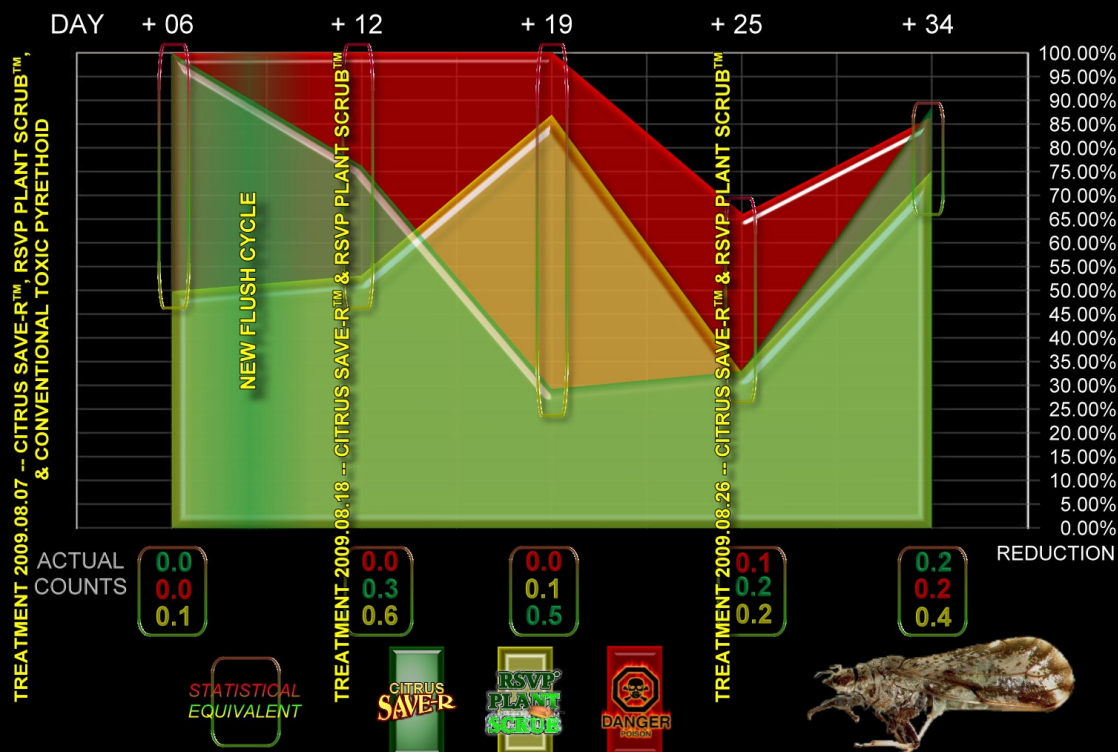


What made the tests and their results so remarkable was not so much that the resulting reductions were achieved by products derived solely from plants and are certified 100% carcinogen free, 100% mutagen free, and 100% cytogen free – about as “green” as it gets. Nor was it that the solutions are not in any way *pesticides* or to be confused with same. What was truly unique was the *way* in which the results were achieved.

TAMU TEST RESULTS ASIAN CITRUS PSYLLIDS – MEAN NUMBER NYMPHS



TAMU TEST RESULTS ASIAN CITRUS PSYLLIDS – MEAN NUMBER ADULTS



Conventional insecticides kill pests directly immediately or soon after initial contact at time of application or upon later contact with their poisonous residues. Missing from the scene altogether, insects are not present for population counts conducted in follow up field examinations. The difference between pre- and post treatment counts is used to determine the effectiveness of a particular product or application technique.

Citrus Save-R™ and **R.S.V.P. Plant Scrub Initializer/Booster™** are NOT pesticides and are not to be viewed or used as such. They are totally non-toxic proprietary formulated nano-colloidal **soaps**. As with virtually any soap or detergent, any adverse event experienced by insects occurs only if the insects are exposed to enough of the soap solutions in their liquid form at the time of application.³ The reason is that the powerful degreasing surfactants dissolve the lipid membranes of insects' cells upon direct fluid contact only, surpassing and overwhelming their hydrophilic and hydrophobic properties. The cells – and the insects – literally drown. It is a purely physiological (rather than a chemical, neurological, or toxic) response for which insects can never develop mutative immunity. However, once the liquid soaps have dried – usually in a matter of several hours or less in the field – insects are free to traverse any of the freshly washed plant surfaces with zero ill effect.

Yet in the field tests conducted under the direction of Dr. Setamou, population reduction counts of ACP eggs, nymphs, and adults on the trees treated with **Citrus Save-R™** and **R.S.V.P. Plant Scrub Initializer/Booster™** ranged in some instances from superior to at least statistically equivalent to those achieved by the licensed toxin. But if the insects are not being KILLED, why were the population counts so dramatically reduced? Understanding WHY the proprietary nano colloids did so well is what makes the results so exciting.

Citrus Save-R™ and **R.S.V.P. Plant Scrub Initializer/Booster™** are members of a family of products powered by QuantumMaxx™, a powerful proprietary nano-colloid solution blended 100% from botanical extracts. These products dramatically increase the Cation Exchange Capacity (CEC) of soils and plants. The physical and electro-magnetic



PROPRIETARY
NANO-COLLOIDAL SOLUTION
from extracts of natural plants
in a base of
colloidal micelles.

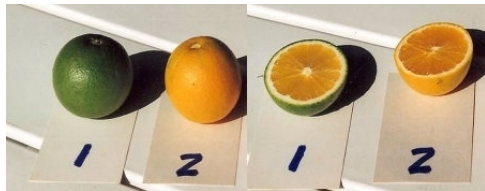
100% botanically based.
100% American grown.
100% hazard free.
100% water soluble.
100% biodegradable.

The CleanPlantsHappyPlants™ Nearly Miraculous Solutions™ positively affect the growing environment by altering the ionic polarity of the soil in a way that helps both plants and the environment.

Misuse of conventional fertilizers and petroleum derived pesticides either locks nutrients away from the roots or allows them to leach away from them unused and unavailable. Greater amounts of fertilizers are then added to compensate, increasing the volumes of chemicals finding their way into our water ways and ground water.

The Cation Exchange Capacity of the QuantumMaxx™ powered CleanPlantsHappyPlants™ Nearly Miraculous Solutions™ changes the polarity of the soil and attracts nutrients, holding them in ready for the roots and then helping transport them through the plants' nutrient systems. The increased availability means that that less fertilizers are needed and so far less wind up in our water systems.

properties of these solutions greatly aid plants in making use of available nutrients with zero harm to the plants, the soil, the groundwater, the workers in the field, or the consumers at home. Their innate CEC helps and enhances the plants' nutrient systems (the portion targeted by citrus greening). In field applications around the United States and in several foreign countries, the results have been earlier and faster cycle growth, more robust growth, substantially enlarged root systems, measurably greater yield increases, BRIX test increases as high as 20%, frost resistance to 27° F, and an increased natural resistance to parasitic attack.

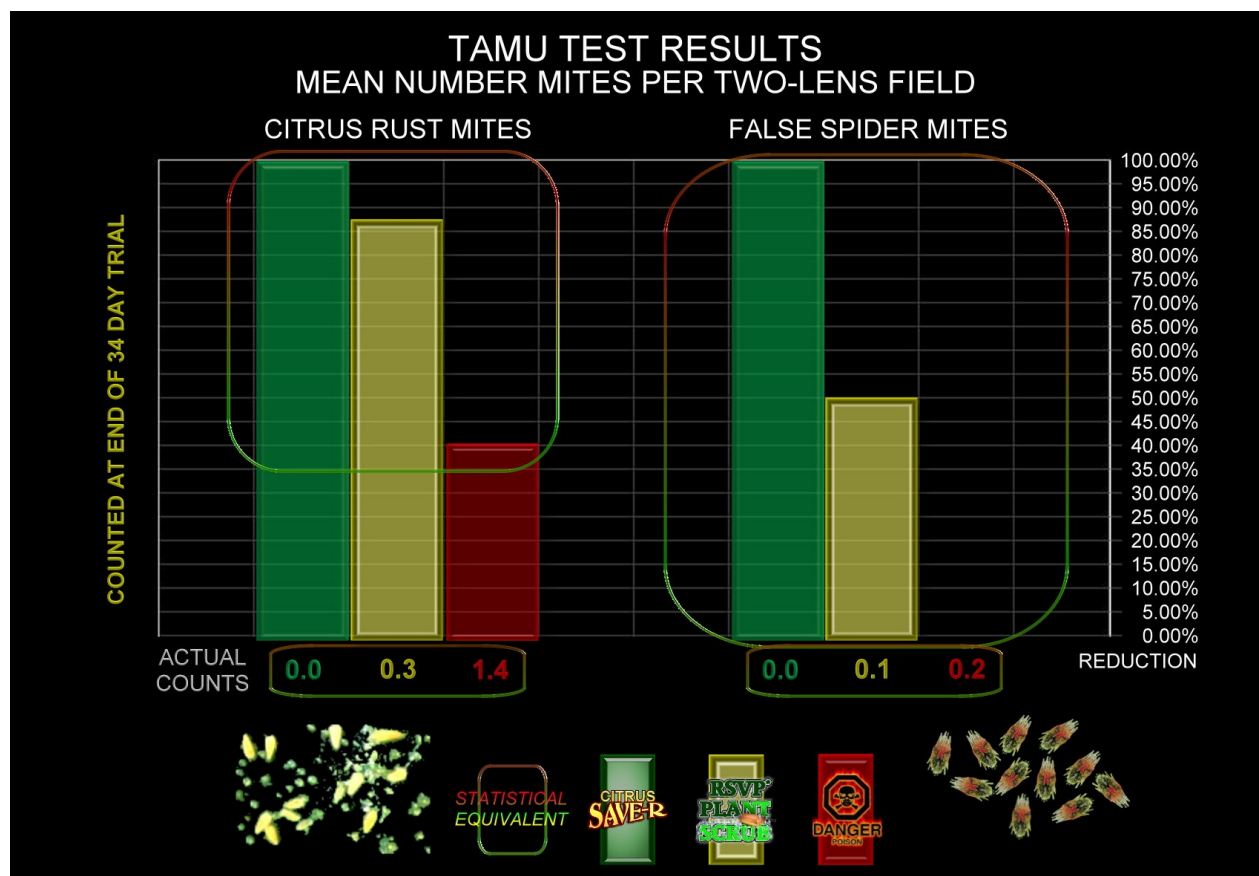


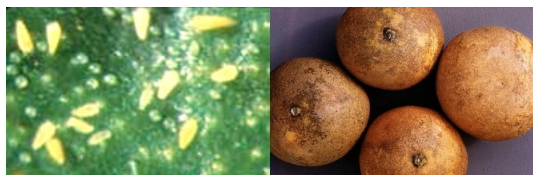
Untreated orange is on the left, treated on the right. QuantumMaxx™ formula treated orange ripened and turned orange on the tree and tested 20% sweeter on the BRIX test.

It has long been noted that parasites are attracted to unhealthy plants and turned away from those that are hardy. Unhealthy plants manifest more parasite infestations. Hardier routinely have less to none. No doubt this is part of a design in nature to cull the weak and allow the proliferation of the healthy. This natural resistance brought about by the use of the QuantumMaxx™ powered agricultural solutions has enabled a growing number of farmers in numerous locales to produce pesticide-free crops and botanicals – which, along with all the other benefits, has positively affected their overall profitability.

Obviously, since *Citrus Save-R™* and *R.S.V.P. Plant Scrub Initializer/Booster™* are not pesticides and can only affect insects directly at time of application, it was the increased health and vitality of the trees, achieved in a remarkably short period of time, which helped the treated citrus trees to become *naturally resistant* to the psyllids. Since the treated trees were not giving off the signals which normally attract parasites, the numbers present for counting were substantially less than the untreated trees – in reduction percentages rivaling those where neurotoxic poisons had killed the psyllids.

Further proof of this phenomenon may also come from a second test conducted at the end of the psyllid trials. Upon examination for Citrus Rust Mites and False Spider Mites, while the mean averages are statistically equivalent, the actual population numbers were significantly





Measuring only 1/200th of an inch, the lemon-colored, wedge-shaped citrus rust mites (CRM) and their eggs cannot be seen without a hand lens. With a life span of only 7 to ten days, they have been the bane of citrus farmers for years, causing untold millions of dollars in damages.

different. For both the CRM and the FSM counts, the **R.S.V.P. Plant Scrub Initializer/Booster™** were substantially less than the toxic pesticide treated plants. But the **Citrus Save-R™** had exactly ZERO of either specie.

As demonstrated by the tests in Weslaco, perhaps the best “cure” for citrus greening or any number of other parasite related maladies is prevention – proactively aiding citrus trees and other plants to resist the onslaught of pests by being naturally robust and healthy so that they are not targeted by disease-bearing and damaging pests in the first place.

Citrus Save-R™ and **R.S.V.P. Plant Scrub Initializer/Booster™** are members of a family of cleaning solutions and specialty products which are 100% botanically derived, 100% carcinogen / mutagen / cytogen free, 100% biodegradable, 100% American grown, 100% American blended Proprietary Nano Colloid Soaps. They are non-toxic, non-caustic, non-corrosive, non-explosive, and non-flammable. They contain no fumes, no vapors, no butyl, no phenol, no chlorine, no petroleum distillates, no nitric acid, no phosphoric acid, no hydrochloric acid, no citric acid, no sulfuric acid, no dioxane, and no ethylene dioxide. They are harmless to the soil and to groundwater and water systems. They are soaps and are to be respected as soaps, slippery when wet, not to be sprayed in the eyes (mild stinging may occur – flush with water), and for external use only. They are TOTALLY TOXIC FREE, and, used as directed, they are “TOTALLY HAZARD FREE”™.

Find out more about these amazingly safe and effective agricultural products that some are calling “Nearly Miraculous Solutions™” available exclusively at www.CleanPlantsHappyPlants.com.



¹ **Citrus Save-R™** and **R.S.V.P. Plant Scrub Initializer/Booster™** treatment sprays were applied 7th, 18th, and 26th of August 2009, each at a ratio of one ounce of concentrated product per one gallon of well water at a rate of 200 gallons of mixture per acre, with each treatment replicated three times. Pyrethroid only sprayed once on 07 August 2009 at a rate of 2.4 ounces of toxin per acre.

² A .pdf copy of the results from the Texas A&M tests is available without charge upon request. Published test results do not necessarily mean endorsement by the university or any of its departments or staff. These results have not been evaluated or endorsed by any agency or department of any government.

³To maximize the degreasing surfactant effect on plants attacked by insects, applications are best made on days one, four, and seven. The fact that the all natural products were applied eleven and then eight days apart lends further credence to the value of the products as “immunity boosters” for plants as their primary function in obtaining control of adverse conditions.

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