



Believe the Unbelievable!®

Want MORE from Every Acre?



www.organisancorp.com

Believe the Unbelievable!™

Prop 65 Compliant

Our raw ingredient, chitosan, is Prop 65 compliant.

O1-YS™ - THE Organic General Purpose Adjuvant OII-YS™ - THE Natural General Purpose Adjuvant

O1-YS™ and OII-YS™ are uniquely formulated all natural adjuvants proven to greatly increase the efficacy of nematicides, fungicides, fertilizers, herbicides, insecticides, and nutritional sprays. The synergistic blend of principal functioning agents featuring the combined properties of a superior agricultural, soil wetting agent, and nutrient enhancer to solubilize and transport nutrients benefiting the growth and development of all plants. O1-YS™ and OII-YS™ can be applied to all crops including, fruits and vegetables, field and row crops, turf, fruit trees, nut trees, ornamental trees, vines, shrubs, and flowers, and containerized plants. They are not designed for aquatic use.

Benefits:

- **Improve the Health and Vigor of Your Plants!**
- **Decrease transpiration Loss up to 50%!**
- **Extend the Growing Season of Your Crops!**
- **Increase the Coverage of Your Spray Agent!**
- **Improve the Performance of Any IPM Constituent!**
- **Speeds the Uptake and Utilization of Your IPM Program!**



NEMASAN - Nematode Suppression / Control

Nemasan is our Environmental Protection Agency (EPA) registered nematicide that can both be applied during all phases of the growing cycle and assist farmers in treating nematode outbreaks without using any special spray protocol, respirator or personal protective equipment (PPE).

According to recent data, nematodes cause approximately \$10 billion worth of damage for farmers worldwide. They cause damage by feeding on the roots of susceptible crops, which hurts yields by stunting growth and inhibiting water and nutrient uptake.

Benefits of the revolutionary new Nemasan product to combat nematodes include:

- **Year-Round Application** - Provides growers the ability and flexibility to deal with nematode issues during the entire growing cycle from pre-plant up to and post harvest.
- **Naturally Made** - Made from sustainable sources of naturally occurring ingredients.
- **Plays Nice with Others** - Only nematode product that can be safely used with other agricultural products at the same time.
- **Cost Savings** - Application cost for Nemasan is significantly less than current nematode control compounds.



For Critical or Spot Treatments, Use the SUPREME Concentrated Formula!

Lower Spray Solution pH to 5.0 or Below!

ENHAN-CER™ 1 - The SUPREME Organic Adjuvant ENHAN-CER™ 2 - The SUPREME Natural Adjuvant

Enhan-cer™ 1 and Enhan-cer™ 2 soil adjuvants, combined with any current crop treatment, have been proven to be a powerful tool for increasing your overall production by decreasing transpiration up to 50%, extending your growing season, and overall improving the health and vigor of your plants.

Benefits:

- **Concentrated and INTENSE chitosan-based formula.**
- **EXTREMELY LOW USAGE RATE**
- **Apply at ANYTIME in the Growing Season**
- **ALL NATURAL ADJUVANT proven to drastically increase the efficacy of pest, weed and nutritional sprays.**
- **For row crops, fruits, vegetables, ornamentals, nut crops and turf.**
- **Not designed for aquatic use.**



CitriSan™ - Citric Acid

Use CitriSan™ to lower spray solutions to pH 5.0 OR below for maximizing the efficiency of Organisan products in all your Nematicide, Fungicide, Fertilizer, Herbicide, Insecticide, and Nutritional Sprays.

- **CitriSan™** is an ideal acidifier for reducing the pH of spray solutions.
- **CitriSan™** can positively affect the application of pesticides designed for use with wetting/spreading type adjuvants.
- **CitriSan™** can be applied to all crops including fruit trees, vines, tree nuts, fruits and vegetables, field and row crops, ornamental trees, shrubs and flowers, containerized plants and turf. The application of CitriSan™ to spray mixtures complexes minerals in both the water and the soil.
- **CitriSan™** can be applied as an adjuvant with approved pesticides inside and outside of poultry operations.
- **CitriSan™ IS NOT FOR AQUATIC USE.**



Spray Mixture must be adjusted to a pH of 5.0 or below in the final tank mix before adding O1-YS™, OII-YS™, ENHAN-CER™ 1, ENHAN-CER™ 2 or NEMASAN products.

Spray Mixture must be adjusted to a pH of 5.0 or below in the final tank mix before adding O1-YS™, OII-YS™, ENHAN-CER™ 1, ENHAN-CER™ 2 or NEMASAN products.

How Our Adjuvants Work

Row Crops

O1-YS™, OII-YS™, Enhan-cer™ 1 and Enhan-cer™ 2 feature chitosan, our raw ingredient which is Prop 65 compliant, and yucca. Each principal functioning agent plays a specific role yet act in synergy to afford the grower the most effective natural adjuvant on the market. Natural ingredients are a better assurance against risk of negative side effects either due to the adjuvant chemistry, concentration effects, or phytotoxicity. Our principal functioning agents are biodegradable.

Chitosan is a large polymer molecule derived from a similar material called chitin. Chitin is the second most abundant biopolymer on the planet after cellulose. Chitin is a tough fibrous material very similar to cellulose and is found in a number of different species such as fungi, shellfish, and insects. It is chitin that gives rigidity and toughness to the external shells of these organisms. Chitin itself has limited uses because it is not very soluble. It is obtained from the processing of shellfish wastes and converted to chitosan.

Chitosan, like cellulose and chitin, is a long linear polymer molecule. What makes chitosan useful is that it is soluble in many common solvents. Also, chitosan in solution carries a positive charge (it is cationic). Cationic biopolymers are less common than anionic biopolymers and this makes chitosan somewhat unique. One way to think of cellulose, chitin, and chitosan is to compare them to a necklace. The beads are the individual units joined together to make the linear polymer. Typical chitosan polymer is made up of multiple thousands of these beads. With chitosan, these beads carry a positive charge when dissolved in an acid solution. The positive charge is part of what makes chitosan an excellent sticker adjuvant.

Yucca is a crude extract of the desert plant *Yucca schidigera*. Our yucca is obtained from sustainable stands of the plant. The stems are harvested and cold pressed to ensure the best active material in the crude extract. The active ingredients in the extract are saponins, a family of materials that have a soapy (surfactant) nature.

Foliar sprays are designed to apply herbicides, pesticides, nutritionals, etc. directly to the leaf surface or the soil. Adjuvants help these materials adhere to the leaf surface and penetrate the leaf outer layer, the cuticle. Adjuvants help limit the losses of active ingredients.

The main function of the plant cuticle is to minimize water loss from plants when stomata are closed and to protect the plant against physical, chemical, and biological attack. However, the cuticle remains the main barrier to the penetration of applied compounds. The cuticle is a relatively complex mix of materials including waxes, other lipids, and some non-lipid components like polysaccharides. There are also physical barriers present like small hairs. These combine to make the cuticle largely hydrophobic. Some constituents also contribute surface charges which can be exploited by our adjuvants.

The synergistic action initially stems from the surfactant acting saponins. These materials are water soluble and help in reducing surface tension. Instead of sprays depositing as spherical droplets with little adhesion to the leaf surface, the surfactant allows the droplet to spread and adhere more efficiently to the leaf surface. By spreading out, not only is greater adhesion achieved, but entrained components are brought into closer contact with the leaf surface. The saponins also facilitate penetration of the cuticle layer so your costly agromaterials are given a better chance of penetrating the leaf. These are all critical features of the spreader function of O1-YS™, OII-YS™, Enhan-cer™ 1 and Enhan-cer™ 2.

Chitosan is the sticker component. This is due primarily to the difference in the charges between the leaf surface and chitosan. This charge difference increases the "rainfastness" of O1-YS™, OII-YS™, Enhan-cer™ 1 and Enhan-cer™ 2. Chitosan also can chelate various materials, including metals and interact with several substrates by electrostatic and hydrophobic interactions. Apart from the strict sticker function, chitosan also is a very useful vehicle for bringing your agromaterials into close contact with the leaf. The penetrability of the saponins help get these chelated materials in the leaf more efficiently.

Both the chitosan and yucca with their individual properties combine their unique synergistic action to give you O1-YS™, OII-YS™, Enhan-cer™ 1 and Enhan-cer™ 2 the best adjuvants on the market...NATURALLY!



André Blanchard, Ph.D.
Vice President, Technology and Operations



Peanuts

Grown in Arkansas

This peanut crop received the grower's standard fertilizer and pesticide program. The test area was defined by adding OII-YS™ as adjuvant to the respective spray mixtures. Note volume of early nut development on the right (from the treated area). Clearly, OII-YS™ is effective at making the spray components more available to the treated plants resulting in visibly more vigorous growth and development. At the end of the season, peanuts came in several weeks ahead of time. The farmer was amazed at the growth, health, and yield.



Soybeans

Grown in Wisconsin

This picture is a comparison of beans grown on the left with OII-YS™ used as adjuvant for the grower's standard fertilizer and pesticide package. Note the significant difference in pod color. Clearly superior adjuvant properties of OII-YS™ effectively gets the nutrients inside the plants greatly affecting the yield.



Peanuts

Grown in Florida

In 2018, Enhan-cer™ 2 was used on a test field in northern Florida. The treated field produced much larger nut sets and overall yield was significantly greater.



Cotton

Grown in Georgia

Check plot (left) received foliar applications of the grower's standard fertilizer/pesticide program. The treated area plants (right) received the standard foliar applications including OII-YS™ as an adjuvant.



Spray Mixture must be adjusted to a pH of 5.0 or below in the final tank mix before adding O1-YS™, OII-YS™, ENHAN-CER™ 1, ENHAN-CER™ 2 or NEMASAN products.

Grains

Hay Barley

Grown in Montana

A hay barley grower in Montana planted this field Spring 2018. Four acres were sprayed with OII-YS™ by broadcast spray at a rate of 1 pint per acre. All other factors were identical. On July 4, 2018, the far right, which was a part of 4 acres treated with OII-YS™, shows significant growth over the non-treated part of the field.



Several years ago, we began providing farmers with sample product to test our product in various altitudes on various crops. Within days, farmers were reporting "unbelievable" results. Since the first test plot, we have received literally hundreds of calls and numerous pictures of test control results. We continue to stand behind our slogan

Believe the Unbelievable!®

In the trials shown, the plots were treated equally with the exception of the application of OII-YS™.



Corn

Grown in Louisiana

Louisiana corn showed germination and emergence progress at 11 days. Note the purple health of the treated stem on the right at 11 days.



Corn

Grown in Kansas

The corn seed on the right was planted in-furrow using the regular fertilizer program. The seed on the left was planted in-furrow using the same regular fertilizer program plus OII-YS™ as the adjuvant.



Wheat

Grown in Tunisia

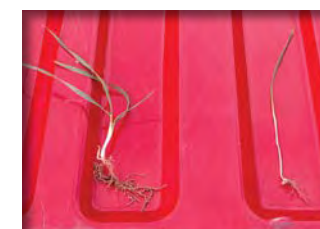
Picture shows two wheat seed samples from a study in Tunisia. The sample on the left was treated with a 0.05 OII-YS™ solution yielding heartier root growth and sustainability. Note the root hair colonization on the OII-YS™ treated plant.



Wheat

Grown in Mississippi

Wheat samples in Leakes County, Mississippi, on April 2, 2016. The treated sample on the right yielded much heartier root growth with thicker, greener plant growth.



Wheat

Grown in Kansas

Plant on right treated in furrow with a normal pre-plant fertilizer program. Plant on the left is the same except OII-YS™ added as adjuvant and it was planted two weeks after the check plot.

Spray Mixture must be adjusted to a pH of 5.0 or below in the final tank mix before adding O1-YS™, OII-YS™, ENHAN-CER™ 1, ENHAN-CER™ 2 or NEMASAN products.

Spray Mixture must be adjusted to a pH of 5.0 or below in the final tank mix before adding O1-YS™, OII-YS™, ENHAN-CER™ 1, ENHAN-CER™ 2 or NEMASAN products.

Various Trees

Vegetables



Pecans

Grown in Georgia

Zinc is a difficult nutrient for plants to uptake through soil and foliar routes. In the canopy of 20' tree, we covered a selected typical large branch of the tree with a large bag sealed at the branch base. Prior to covering, leaf tissue samples were taken of the entire tree which included the spray protected branch. A foliar nutrient solution which included zinc and featured OII-YS™ as the adjuvant was applied. The covered branch and leaves were protected from any contamination of the spray. 24 hours later, the bag was removed and leaf tissues were sampled from the treated and untreated portions. Test data revealed the same nutrient and zinc concentrations in the treated and untreated tissues. These results demonstrate the superior qualities of OII-YS™ as an adjuvant allowing the applied zinc adequate time to absorb for rapid distribution to the entire tree.



Pine Trees

Grown in South Georgia

A large commercial nursery used OII-YS™ and the results were significant. The most impressive difference as shown in the photo, was the volume and strength of root systems.



Almonds

Grown in California

Almonds are planted as small "whips", typically with a caliper of about 0.5". Our grower utilized his standard fertilizer program applying foliarly in their regular grow-in time frames. With the treated plants, OII-YS™ was added as an adjuvant. After seven months in those plants receiving the fertilizer plus OII-YS™, the average caliper had increased to 2.5 inches (woody, not spongy tissue). Treatment with OII-YS™ advanced the grow-in period by two years.



Broccoli

Grown in Georgia

Check plot three plants on the right received the grower's standard fertilizer package. Three plants on the left were treated with the same program including OII-YS™ as an adjuvant. More nutrients in the plant promotes better root growth.



Organic Carrots

Grown in Georgia - Single Foliar Application

Check plot are the left and center bunches receiving the standard fertilizer package. The bunch on the right received the standard package including O1-YS™ as an adjuvant. More nutrients in the plant promotes better root development.



Beets

Grown in Florida

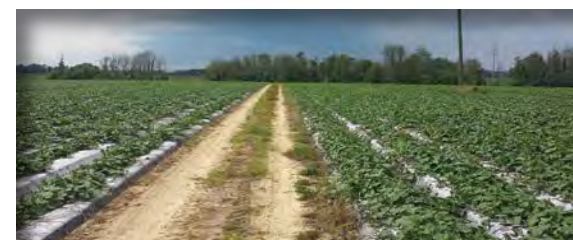
Treated vs. Untreated Beets from Northern Florida in March 2016 two weeks after planting. Plant on the left treated with OII-YS™ showed more substantial growth.



Potatoes

Grown in Eastern Idaho

Test digs in potatoes are hard to quantify but the grower in eastern Idaho was shocked when his test digs started outperforming all of the untreated fields. As a first time user, the grower used one pint of OII-YS™ on a 40 acre plot in furrow at mark-out with his normal nutrient program. Per grower, the treated yields are expected to return another 20 sacks per acre which will result in a marginal \$4,000 profit yield over the untreated field. Photo was taken about 60 days after planting (Summer 2018) and it's easy to note the significant feeder routes and root mass differences.



Cucumbers

Grown in Georgia

Rows on the left received the growers standard organic fertilizer package applied foliarly. The rows on the right received the same package with O1-YS™ included as an adjuvant. The result - the rows receiving the O1-YS™ yielded three times more pickings as those rows not benefiting from O1-YS™.

Spray Mixture must be adjusted to a pH of 5.0 or below in the final tank mix before adding O1-YS™, OII-YS™, ENHAN-CER™ 1, ENHAN-CER™ 2 or NEMASAN products.

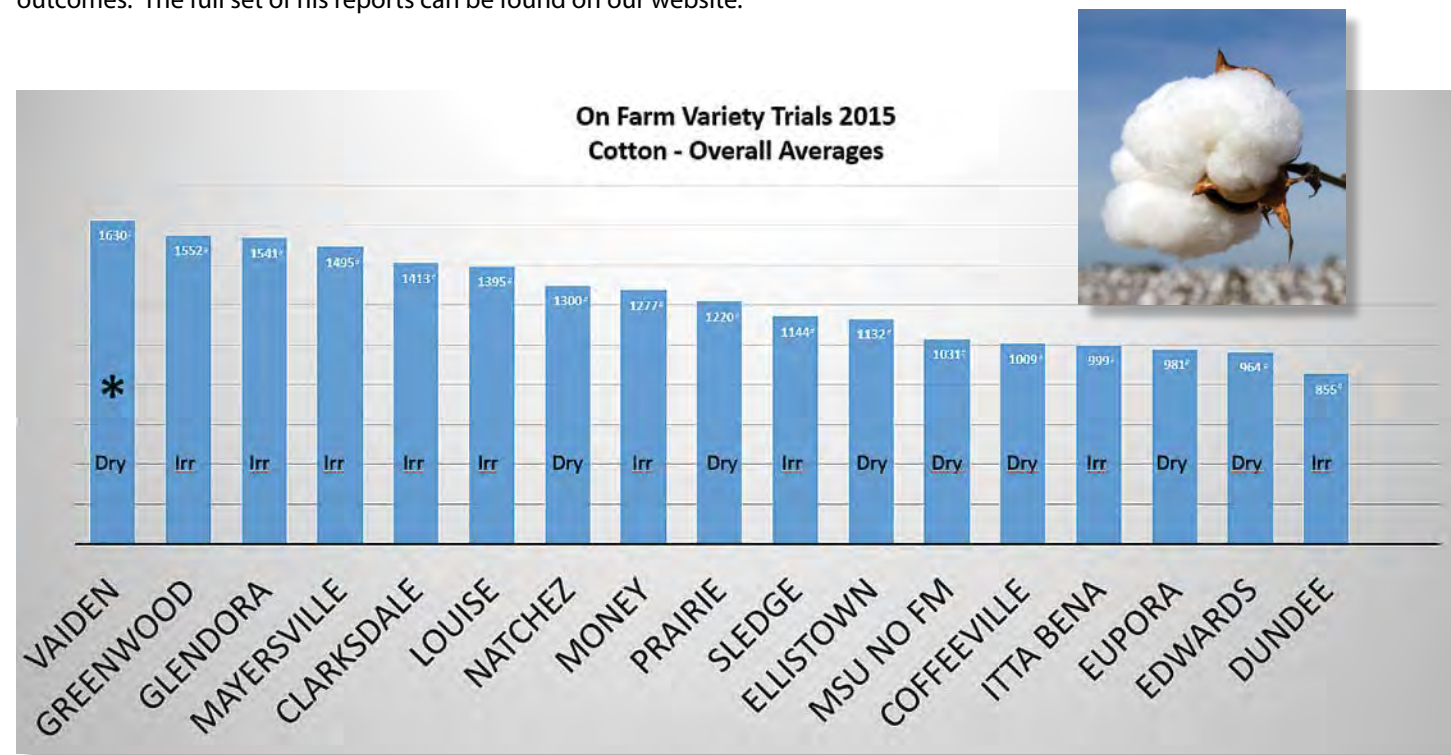
Spray Mixture must be adjusted to a pH of 5.0 or below in the final tank mix before adding O1-YS™, OII-YS™, ENHAN-CER™ 1, ENHAN-CER™ 2 or NEMASAN products.

Cotton Results

Potato Results

2015: Results of 2015 Cotton fields yields. Dr. Ernie Flint

One of our earliest testers and now advocate is Mississippi State University Extension Regional Ext Specialist II, Dr. Ernie Flint. Dr. Flint has reviewed a number of various crops where our products have been tested. He has authored several papers on the outcomes. The full set of his reports can be found on our website.



SITE LOCATIONS

*The only thing different about the Vaiden trial is that it was treated at planting with a biological product containing chitosan. Each year, the MS Extension Service has each of the Regional Agronomist conduct a cotton variety trial in their area. It can be on irrigated or non-irrigated fields which are the name tags at the bottom of the chart above. Dr. Ernie Flint conducted his trial at Vaiden, MS on a non-irrigated field, but he broadcast applied OII-YS™ at 1 pt/acre after planting. While it doesn't have a check plot, we feel that the results were pretty outstanding considering his trial outperformed all the other trials both irrigated or non-irrigated.

Note the only location that was treated with OII-YS™ was the Vaiden field. Again... **Unbelievable results!**

It should be noted that OII-YS™ did not financially support this trial since Dr. Flint personally sought only to see how the OII-YS™ would perform on irrigated/non-irrigated cotton.

2019: Eastern Idaho Potatoes. Egin Bench in Eastern Idaho.

The photos were taken and provided by the grower on June 11th. On the morning of June 9th, the temperature in this field got down to about 27 degrees for about 4 hours. The field consists of a 110 acre full pivot and a 50 acre wiper. The farmer makes 3, approximately 50 acre fields. There is Norkotahs planted on the West 3rd and the East 3rd, with wheat planted on the middle 3rd. The seed is from the exact same lot. It took the farmer a total of 2 1/2 days to plant the approximately 100 acres, beginning to end. Potatoes were planted the 1st week of May.

The east 50 acres received 1 quart per acre of OII-YS™ in furrow at markout. To see this field in person, the difference is remarkable. The plants on the treated side are nearly double in size, with only very light frost damage visible, while the check side shows substantial frost damage, and much slower growth.



These photos are from the grower's standard side.



This side received 1 quart per acre of OII-YS™, in furrow, at markout.



The plants chosen to be dug up were an average from both sides. Neither of them were the biggest or the smallest of their respectable plots, The plant from the OII-YS™ side is bigger because ALL the plants on that side are bigger, but it is still an average from the treated portion of the field.

Spray Mixture must be adjusted to a pH of 5.0 or below in the final tank mix before adding OI-YS™, OII-YS™, ENHAN-CER™ 1, ENHAN-CER™ 2 or NEMASAN products.

Spray Mixture must be adjusted to a pH of 5.0 or below in the final tank mix before adding OI-YS™, OII-YS™, ENHAN-CER™ 1, ENHAN-CER™ 2 or NEMASAN products.

The Organisan Team



Robin Borden

President and CEO

601-624-4747

robinb@organisancorp.com



Mark Nichols

Vice President, Sales and Marketing

678-935-8120

markn@organisancorp.com



John Hendrix

National Sales Manager

601-383-3648

johnh@organisancorp.com



Tom Wood

Western Regional Manager / Product Specialist

208-317-4580

tomw@organisancorp.com

Media Contact: Kelli Weaver, 404-376-6055, kelli@thekelligroup.com

Organisan Corporation | PO Box 2085 | Carrollton, GA 30112 | www.organisancorp.com