

BACKGROUND INFORMATION LIBRARY



BioWash

By Dr. Leon Hesser, P.H.D.

BioWash is a remarkable new plant tonic that increases crop production safely while eliminating many harmful pests and fungi. The product enhances plant root growth and nourishment in young plants by stimulating their deep and rapid penetration of soil. *BioWash*, which is non-toxic and non-hazardous to humans, animals or plant life, heralds a new era in agriculture.

Characteristics

As a bio-based product, *BioWash* comes within a new category of Plant Growth Stimulator for which no governmental rules or regulations are yet in place in the USA. *BioWash* is neither a petroleum-based fertilizer nor a chemical pesticide. Because it is not a chemical pesticide, it does not require registration or approval by the U.S. Environmental Protection Agency (EPA).

Because *BioWash* has less than 5% NPK, it does not meet criteria for registration as a fertilizer by some State governments in the USA.

BioWash is manufactured in a sub-atomic process. It requires no special training, care or equipment by applicators, and requires no protective clothing.

When sprayed with *BioWash*, young plants grow more rapidly. The sub-atomic particles of the spray quickly penetrate the leaves to spark more-efficient photosynthesis and higher *BRIX* (sugar) levels. This makes the plants stronger, healthier and better able to resist diseases and harmful insects (while attracting honey bees). Plants have earlier and higher rates of germination, quicker flowering, and increased overall crop yields.

General Benefits

Increased Yields: Farmers report yield increases ranging from 10% to more than 40% on a series of grain, hay and horticultural crops.

Higher Quality Production: Higher grain test weights, better quality fruits and vegetables, fewer rejections of fruits and vegetables.

Pest Control: *BioWash* is **NOT** a pesticide. However, farmers report that it does keep many harmful insects off plants, apparently by increasing the *BRIX* (sugar) levels in plants, which makes them nonviable to pests. Working at the molecular level, *BioWash* attacks the hydrocarbon composition of pests. This is in contrast to traditional chemical pesticides in which pests may develop resistance to the chemicals, which are directed at the pests' neurological system.

Shorter Growing Period: Most crops treated with *BioWash* mature about two weeks earlier, which facilitates double cropping, such as soybeans following wheat.

Drought Resistance: The deeper roots improve resistance to drought and facilitate better stands, which minimizes re-planting.

Stronger Plants: Deeper rooting makes the plants stronger, which reduces lodging and makes the plants more wind-resistant.

Blending Process

BioWash is blended from farm-grown commodities (including tree oils, sugar, and corn, among others) in a proprietary process that embodies the latest advances in environmental science: quantum electro-mechanical physics and colloidal chemistry. In the manufacturing process things happen at the sub-atomic level which causes the materials to take on surprising new properties; micelles are created in which the extracts of natural plants are blended at specific time intervals, temperatures and sequences which cause them to become transformed into new particles designated as colloidal micelles.

Treatment & Benefits for Specific Crops (as reported by users). Following is a small sample of benefits, as reported by growers throughout the USA:

Soybeans: **BioWash** increases yields as much 40%; it also increases the test weight of the harvested beans, which increases the market price of the beans, and eliminates the need for chemical pesticides.

Wheat: Farmers in North Carolina report that yields of winter wheat that was sprayed when it came out of dormancy in the spring had 35% increase in yields plus significant increase in test weight.

Tomatoes: Spraying the plants soon after transplanting causes the roots to grow more deeply. To control insects, spray every 3 or 4 weeks. The spray increases yields and is especially effective in controlling aphids, white flies, and other insects.

Alfalfa: **BioWash** stimulates rapid and robust growth of both pasture and hay crops and effectively eliminates insect pests while attracting honey bees; it is best to apply the product within a week after each cutting of hay. It is more beneficial on newly planted crops.

Sweet Corn: Spray at the 2 to 4 leaf stage. The tassels will be extraordinarily large and full; the spray increases the sweetness of the corn, increases the number of rows of grain, and causes the grains to fill the cob completely.

Butternut Squash: A grower reports that treated vines produced 12 squash with 2/3 of them being larger than he had ever known. Untreated vines produced 2 squash.

Red Raspberry: Grower sprayed a 10-foot row in the spring with a small amount of the mixture. "When the bushes started to bloom, honey bees were in abundance, when I had hardly seen bees in the garden for years. There were no Japanese beetles. The bushes set an abundance of fruit; we picked 1/2 to 1 pint every other day for six weeks; picked the last berries the night before the first frost in late October."

Double-cropping: A Michigan farmer tried double-cropping soybeans after wheat. A month before the beans were ready for harvest, there was 15 hours of freezing weather. He sprayed the beans with a **BioWash** solution to which he added 3 lbs of sugar per ounce of **BioWash**. The beans survived the freeze. A month later he harvested 10-bushel per acre of soybeans (which was unheard of before, with double-cropped beans in Michigan).

Greenhouse Use: Several operators of greenhouses in the State of Florida in the USA report a remarkable positive response on a variety of fruit and vegetable plants in their greenhouses.

The Science

What makes Bio-Wash so Effective?

Bio-Wash is blended from processed carcinogen-free extracts of natural plants.

Using the miracle of quantum chemistry, these extracts are blended into a homogeneous emulsion containing extremely small particles. Particle sizes range from nanometers down to approximately eight (8) angstroms in size. (Per University of Miami)

Angstroms are the smallest known particles of matter. Per Einstein, Max Planck and other physics geniuses, if matter becomes any smaller, it returns to energy.

At the quantum physics level, all the rules change. Chemists trained in traditional Newtonian physics have difficulty explaining the reasons behind the spectacular benefits enjoyed when plants are BioWashed.

Below 50 nanometers, we enter the world of quantum physics where the physical laws of Newton no longer apply. There matter takes on surprisingly new properties.

Examples: The color red may appear green; metals may become translucent; a non-conductor may pass electrical current; non-magnetic materials may become magnetized; insoluble substances may dissolve.

All molecules have a positive or negative electrical charge. All living cells are electro-magnetic.

In conventional Newtonian physics, positive poles of a magnet repel one another; positive and negative poles attract each other.

Contrary to conventional physics, when particle sizes measure only eight angstroms, such as BioWash, positive molecules attract other positive molecules.

BioWash & Plant Growth

Plants, like humans and animals are electro-magnetic and are governed by Periodic Law.

In photosynthesis, plants require radiation from the Sun plus six molecules of water and six molecules of carbon dioxide to make one basic sugar molecule and six oxygen molecules.

During the photosynthesis process, plants emit oxygen into the atmosphere. The one molecule of sugar becomes the foundational building block for every thing that visibly growing above ground. It produces roots, trunks, stems, leaves, flowers, branches, fruits and grain.

Because the sugar molecule is so important to plant growth, increasing sugar production will have a major impact on plant size, reproduction and quality.

BioWash contains minute trace amounts of positively charged (cation) sodium. Cations improve electrical activity.

In the chloroplasts of the cells' sugar factory, four positive magnesium molecules combine with one nitrogen molecule. These positive magnesium molecules help to attract and pull positive sodium molecules and other elements attached to the cation into the cells of the sugar factory.

The net result is more availability of fuel, energy and conductivity to boost the sugar making capacity of the sugar factory cells.

Thus BioWash is able to penetrate into the plants cells, carrying energy and nourishment to the cell, increasing the level of sugar production as it photosynthesizes.

Bio-Wash trials have increased sugar levels in some plants by up to 50%.

When this higher sugar level is achieved, plant growth and yield increases.

Dr. Hesser's telephone conversation with Chad Neibaur, September 24, 2010.

Summary.

Chad uses BioWash 100 on potatoes. He said, "I really like the product; we use a lot of different approaches. We didn't cut our seed this year. We spray the seed before we go to the field; it's important to cover the seed well with the diluted mixture; we have stopped using any other seed treatment. Treatment that normally cost us 60 cents to \$2 per sack of seed costs us only 1 ½ to 2 cents. That alone saved us thousands of dollars." (He uses 1 ounce of BioWash in one gallon of water.) He grows 920 acres (375 hectares) of seed potatoes and used two totes (500 gallons, or 1,875 liters) of BioWash this year. He said, "I have seen no *Rhizoctonia fungus*" on the potato crop. Chad said his father, who is now retired in his early 80s, said he has never seen better crops than Chad has this year.

Chad uses pivot irrigation; he applies BioWash when he applies foliar fertilizer. He said his potato crop gets some BioWash every week. He said, "We had an unusually cool May and June this year and lost 2 to 3 weeks of growth, but when we harvested we were right up on yield ..." while neighbors did not do as well.

Chad said, "Farmers should try the product for themselves, and not just take my word for it."

TreeHouse Nursery Experience

April 2006

In the spring of 2003, Bob and Vivian Murray, owners of The Treehouse Nursery, Bokeelia Florida, began using a BioWash to clean their mango trees. They listed the following benefits compared to traditional controls:

1. No health hazards to workers, customers or owners.
2. Estimated 95% reduction in chemical costs, plus savings of \$3K to 5K annually in plants that would have otherwise been discarded.
3. Yields increased by up to 300%. BioWash promotes stronger blooms that are more resistant to heavy winds.
4. Plant growth increased by up to 300% in just three months.
5. No rational workmen's compensation claims or lawsuits from customers, workers or neighbors claiming chemical exposure.
6. The nursery doesn't have to be closed 16% of the year to protect workers and customers after toxic chemicals have been sprayed.
7. One product cleans all plants, eliminating the need for multiple products.
8. Significantly reduced labor costs associated with spraying, plus reduced costs for equipment maintenance. (Old equipment is so well cleaned it actually looks new.)
9. No concerns about long-term liability for groundwater pollution or future land sales.
10. Germination rates increasing from 40% to 50% to 90% to 100%, thus reducing cost of seeds.
11. Faster sprouting and growth.
12. Significantly larger, stronger root systems.
13. Frost and freeze resistance down to 27 degrees F.
14. Improved grafting success from 40 -50% survival up to 90% +.
15. Transplanting with little or no shock.
16. Vastly increased yields.

GRASSES & BIOWASH™



December 10: grass is dormant



January 12, grass is green and lush.



Brown dormant December grass was unsightly.



BioWashing December 10th.



Green Grass through the winter can save money for owners and produce healthier animals.

BIO-WASH & GRAPE YIELDS

Frank Dumont BioWashed his grape vines and stimulated a second grape yield.



The above photo (#1) reveals the flush of new grapes.

Photo (#2) shows the existing grapes (1st harvest) and the flush of the 2nd crop.



The following photo (#3) shows Frank's ripening grapes.



These photos are preliminary results in a small experiment. They indicate *enormous potentials* for the grape and wine industry.

RECOVERY OF FROST DAMAGED VINES

Maryann Michaels *BioWashed* the trunk of a freeze damaged vine. She wrote: *"Ted, I BioWashed my "frost bitten" grape vine. I only did the roots...and saw budding within 3 days; and within 10 days full bloom big beautiful leaves...I see the blooms for the fruit (today) I did not spray the leaves....just the roots."*

Justin Wilkins, wrote about *BioWash* and freeze damage: *We were hit hard with freezing down to 24 degrees. All my trees bounced back including my grapes. I have more clusters of grapes coming than I have ever had.*

BioWash = Increased Yields & Profits

CONTINUOUS TESTING



BEAN TESTS



GERMINATION TEST



TOMATO TESTING



+ BRIX & DISEASE RESITANCE



POTATO TESTING



CATION EXCHANGE & CORN



PALM TREE GROWTH



CATION EXCHANGE & CORN ROOTS



BioWashing
Produces \$\$\$\$!



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Passion Fruit

Report from Ricardo Ruperti

12 Sep 2010



Plants with no **Bio Wash**, transplanted august 10th. 2010, you can watch fungus, ants and red spider presence. The plants are small, 6 to 8 inches high, leaves little and corrugated. There is a poor growth.



Plants same age above, treated with **Bio Wash**, after four days we noted the difference and now, the effects are really evident, plants are growing spectacular with big intense green healthy leaves. Some plants are 5 foot high



Watch the great difference in height!



Passion fruit nursery plants. The difference is evident, more growth, better leaf development and a spectacular root growing.



Guess: Which were treated with *BioWash*?