

Grower's Secret Observation Guide

Reports From Users Revised: June 2006

The following Grower's Secret benefits have been shown in actual experimentation and crop testing. If no source is shown, the source is various farmers on Hawaii and in several mainland states.

1. Increased Yield

- a. Arugula
- b. Blackberry: Farmers in Oregon, United AgriProducts Northwest Testing
- c. Broccoli: Kula farmers
- d. Citrus: Haiku farmers
- e. Coffee: Kona, Hawaii farmers, University of Hawaii
- f. Douglas Fir Biomass: University of Idaho Dept. of Forestry (15% height increase in 30 days)
- g. Flowers (Roses, Impatiens): Maui Farmers (Increase in size)
- h. Fruits (mango, papayas, citrus and guava):
- i. Garbanzo Beans: University of Idaho Field Test (Seed treated with Grower's Secret resulted in 24% increase in yield)
- j. Grape harvest at Seavey Winery, California—1 fl. Oz./acre = 1080 lbs of grapes increase/acre in Phyloxera-infested grapes.
- k. Green Crops, including Parsley, Lettuce, cabbage, cucumbers, green onions, asparagus, leafy greens: Oahu & Maui farmers
- l. Kula Onions on Maui Farms (77% increase in growth)
- m. Leeks & leafy vegetables: Pennsylvania State University Department of Horticulture
- n. Lettuces, including Brune D'Hiver, Red Sails, Green Wave, Endive, Red Romaine, Plato II Romaine, Green romaine, Pirat, Thai: Kula Vegetable Farmer
- o. Mizuna
- p. Poha Berries
- q. Radish
- r. Root crops: (Beets -- yellow & Red, onions, Radishes, Turnips)
- s. Spinach: Amaranth (Red Spinach), Broad Leaf Green Spinach
- t. Taro: University of Hawaii, Maui farmers (2-3x root mass increase)
- u. Tomatoes: Kula Farmer (15% increase in yield with 8 oz per acre usage)
- v. Tuberose: Oahu Farmer (300 acres) increased number of shoots & flowers
- w. Turnips: University of Hawaii Agriculture Extension - Maui
- x. Young greens: Kula farmers (94% increase in growth)

2. Shortens Crop Cycle – Less Pesticide Usage

- a. Celery: Normally 12 weeks crop cycle, now 8 weeks with Grower's Secret treated at 2 oz per acre in 125 gallon water/fertilizers (Kula Farmer)
- b. Cilantro: Saves 3 weeks of growing time if transplants and ground drenched in 2 drops per gallon of water at time of planting with fertilizers (Kula Farmer)
- c. Daikon: Saved several weeks in growth
- d. Romaine Lettuce: Normally 8 week crop cycle, reduced to 6 weeks when treated with Grower's Secret at 2 oz per acre in 250 gallon water/fertilizers (Kula Farmer)
- e. Young greens: Saves 2½ weeks if transplants and ground are drenched (Kula Farmer)
- f. Round Onions: saved several weeks and increased size of bulbs

3. Promote Recovery Or Rejuvenation Of Distressed Plants From The Following Conditions:

- a. Late Frost Damage: Oregon, United AgriProducts Northwest
- b. Fungal Root Rot Infestation: Oregon, United AgriProducts Northwest
- c. Root Knot Infestation (Coffee trees): Kona, University of Hawaii Nematologists
- d. Phyloxera Infestation in vineyards: Seavey Winery, California
- e. Root Knot Infestation (String beans): Hawaii Farmers
- f. Insect Crop Defoliation (Turnips / caterpillars): University of Hawaii Agriculture Extension
- g. Chemical Defoliation (Roses): University of Hawaii Agriculture Extension
- h. Old Flower Crops produced another flower crop: Kula Flower farmers
- i. Old Citrus and Papaya Trees recovered: Hawaii farmers
- j. Ratoon Pineapple Plant Recovery: Maui Pineapple Company potted ratoon plants, farmer, gardener
- k. Old Asparagus Clumps: Maui Grower
- l. Dying Potted Palms: Maui Grower
- m. Sunflower plants produced new flowers after seed harvest: Maui Farmer
- n. Dying Heliconias: Recovered and grew to twice the size: Flower Farmer
- o. Flood Damage to Parsley: Kula Farmer
- p. Ginger Plants Recovered one week after application: Flower Farmer

4. General Grown Enhancer

- a. Reduce crop cycle time for vegetables (lettuce, parsley)
- b. Support to a more robust life stage (Douglas Fir seedling data)
- c. Increases bulb development (Onion Farmers)
- d. Increase orchid growth (Maui Orchid Society President)
- e. Increases seedling growth
- f. Shorten time to flowering (pineapples)
- g. More uniform crop growth (onions, pineapples, turfgrass)
- h. Increase stolon growth, faster coverage (Turfgrass)
- i. Increase general tree growth (mangoes, guava, papayas)

5. Increase Survival Rate

- a. Vegetable Transplants (Lettuces--Brune D'Hiver, Red Sails, Green Wave, Endive, Red Romaine, Plato II Romaine, Green romaine, Pirat, Thai): Kula Vegetable Farmer
- b. Spinach (Amaranth - Red Spinach, Broad Leaf Green Spinach): Kula Farmers
- c. Mizuna transplants: Kula Farmers
- d. Arugula transplants: Kula Farmers
- e. Root crops (Beets - yellow & Red, onions, Radishes, Turnips)
- f. Tree Seedlings: University of Idaho
- g. Direct seeding in Treated Soils
- h. Fruit Tree Transplant Aid
- i. Prolong life of cut flowers

6. Improve Overall Plant Vitality And Vigor

- a. Increase in Leaf size (lettuce, leafy vegetables)
- b. Increase girth (pineapples)
- c. Increase foliage (lettuce, parsley, heliconias, gingers)
- d. Increase branching (coffee, grapes)
- e. Increase in fruit size (mangoes, guava, berries)
- f. Increase in fruit yield (mangoes, coffee, citrus, grapes)

- g. Increase in fruit quality (papaya, grapes, blackberries, mangoes)
- h. Increase in Flowers (Impatiens, bromeliads, roses, ginger)
- i. Increase greenness of leaves (Bok Choy, Celery)

7. Improve Quality

- a. Increases Sugar Content (Kula Onions increased brix content)
- b. Sweeter Oranges
- c. Papaya and mango fruit quality increased – sweeter and larger

8. Improved Weather Resistance

- a. Longer and robust root system prevents vegetable seedling washouts in heavy rains—Kula Vegetable Farmer
- b. Rain flooded fields resulted in mud-covered Chinese Parsley that still grew, (normally would die)

9. Reduces Incidence Of Disease

- a. Less Bacterial bulb rot in round onions—Kula Onion Farmers
- b. Less fungal leaf spots—Orchid grower
- c. Recovery from Root Rot Fungus infestation—United AgriProducts Northwest
- d. Recovery from Nematode Infestation—University of Hawaii, Farmers

10. Seed Germination

- a. Increases the germination rate of old seeds or difficult to germinate seeds: Fukuda Seed Store, Oahu Northshore Organic Market
- b. Shortens sprout manufacturing by three days---normally takes 10 days—Fukuda Seed Store
- c. Increased germination of Togan Seeds with soil drench---Grower
- d. Increased Garbanzo bean germination in field study—Univ. of Idaho

11. Maintenance of Production

- a. Under severe nematode pressure, 10,000 nematode per gram, still able to produce high quality and quantity crop of Parsley---Kula Farmer

12. Largest & Fastest Growth With Plant Growth Enhancer Treatment

- a. Treated grapes have the largest leaves seen (Seavey Winery)
- b. Longest roots seen (Parsley Farmer)
- c. Fastest growing Heliconia seen (Hana Flower Farmer)
- d. Largest Berries seen (Oregon Berry Farmer)
- e. Fastest growing vegetables (Broccoli, radish, beans) (Vegetable Farmers)
- f. Fastest growing Guava tree (Hana Guava grower)

13. Cost Effectiveness

- a. Dilution of 1:8,000 in water for woody plants (one ounce in 60 gallons water)
- b. Weaker version for vegetable and flowers, dilute 1:16,000. (one ounce in 125 gallons of water)
- c. Depending on the crop and dilution rates, four applications per year for fruit trees or monthly applications for vegetable and flowers.
- d. Shortens Crop cycles: e.g. shortens Celery crop cycle by four weeks

14. Product Safety

- a. No caution or warning required on label
- b. Nontoxic according to Acute Oral Toxicity Test
- c. Classified as “Not a pesticide” by EPA
- d. Organic Usage by HOFA Meets USDA National Organic Guidelines
- e. Exceeds USDA Phytosanitary Requirements

15. Drawbacks

- a. Will stop grass from growing at 1:3000 dilution, do not use concentrations stronger than 1:1000 concentrations without first testing.
- b. After application, fertilizers must be applied due to increase in root mass. Root zone becomes depleted of nutrients in 15-30 days.
- c. If applied as a boom spray application, application will trigger weeds to grow as well. Drip irrigation is better.
- d. Light foliage spray will not be effective, stem and roots must be wetted.