

UNOFFICIAL NFTG
GROWERS BIBLE
#NECTARFAM



UNOFFICIAL NFTG GROWERS BIBLE v 4.0

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#nectarfam If you would like to reach out to the company and Scott D. Ostrander, you can do so at

<http://oregonsonly.com/>



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"On a farming level, the difference really boils down to: Do you actually garden or do you grow plants? This line is definitely for the farmer who is not afraid to put in the extra work, the extra steps, and the time to cater to each plant. It's a job for sure, but it's apparently paying off or else we wouldn't see so many repeat customers." ~ Scott D. Ostrander

Below is from a Grower on our FB Page:

"I echo the sentiments of all the rest of the Nectarfam! Scott, you are, without a doubt, the most attentive and available manufacturer, owner, representative, go-to guy, whatever title you want to give yourself that I have EVER experienced from a nutrient company. Hands down. Period... The product speaks for itself. Again, hands down.

Yes, quality over quantity. Sure, some folks get sick yields, some get average yields, some get sad yields, and Nectar may not give folks the huge hydro yields some of them are after. Though, the potential is there with the line. What I have always found with yields is not always necessarily the product, but the process and habits a grower has. If I want to get lazy, I can expect to get lazy, average yields. If I put the time in, go the extra mile, and pay extra care and attention to a run, I can expect better than average yields. You usually get out what you put in. When I have problems with yields while I've been running Nectar, I always go back and look at my process, where I may have dropped the ball, or what I specifically did in manipulating my feed numbers that may have had an impact on my yields. After doing that, I always find the mistake I made that affected my yields." –

AH

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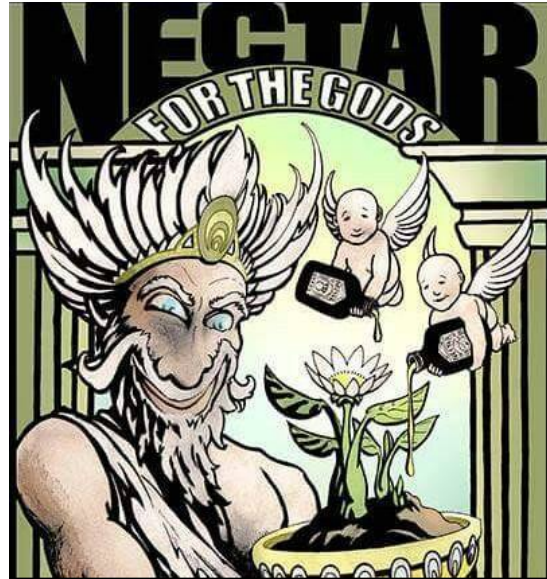
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The Nectar Theory by Mikael Leeplop #nectarassassin:

"What separates Nectar for the Gods from the rest? Currently on the market, there is a plentiful amount of different nutrient lines for the new age indoor/greenhouse gardener. Everything from an over saturation of inorganic salt/nitrate based nutrients that [all] provide the same results when used to grow marijuana (water filled non-medical or mineral infused medicine) down to raw, organic, bottled fertilizers that are good but demand to be broken down by your soil's biological life before [they] can become available to the plant as nutrition. Most bottled organic nutrients are often a very simple mix that lacks the ability to provide the plants with a wide variety of food sources, and these are typically molasses based products. Who likes to eat the same meal every day, anyway?



Traditional organic living soils are great, but dialing in a mix that is able to please a wide variety of plant types can prove to be difficult, and once the plant is in the "hot" mix there is no going back. Nectar for the Gods is able to bring a new age organic method to the table that is unmatched by anything currently available on the market, giving the grower the ability to custom feed. This is totally necessary because it's known that not all plants can fill their highest potential on a standardized feed.

NFTG takes the highest quality, raw, organic materials available and does the chelation process for the grower. By utilizing agriculture's top-shelf, organic Humic acids (BioAg Fulpower), they are able to take the required break down process mentioned above and provide the plants' roots with a completely available form of top-grade, organic nutrients.

Informed growers will agree that calcium is required to build the foundation for a plant to reach its fullest potential to provide heavy, mineral-rich fruit. For medicinal cannabis plants, calcium is important for architectural improvement and increased cell development. When calcium levels are low, a plant's cell membranes become fragile, causing leakage that leads to a lack of other mobile nutrient forms. Calcium, itself, is an immobile nutrient and is not easily absorbed by the plant in most organic forms, thus one reason the common calcium source in synthetics is "calcium nitrate," with the nitrate being nitrogen that we all know you don't want to be feeding your blooming cannabis plants.

Nectar for the Gods is a calcium based nutrient line that defies the previous paradigm that the typical cannabis nutrient companies have set forth: that marijuana thrives on a diet of high NPK salts. NFTG has an organic, proprietary ingredient they use (called 'gamma'), which is a calcium facilitator that is able to make a bond with available calcium forms. The gamma is then able to take the multiple forms of calcium in the line and make them 'mobile', driving calcium into the plants. Coincidentally, the forms of calcium in Nectar are highly reactive, themselves, and want to bond to all the other available chelated organic elements set forth in this diverse line. What this means is, now you are driving once hard to absorb calcium forms into the plant that are "piggy backing" bonded organic, high-grade nutrients into the plant. What you are left with is a healthy calcium/mineral dense fruit, and this is what is required for marijuana to be considered medicine. The other beautiful thing about growing calcium dense flowers is the additional weight that can be achieved by this groundbreaking technology. The rock form of Calcium-Phosphate in the chelated liquid bone meal "Herculean Harvest" fills all the crevices in the plant and flowers and remains

inside the buds when the water evaporates after drying. Rock forms of calcium are very heavy, proven to be healthy when inhaled, provide a very smooth smoke, and may prevent botrytis or "bud rot". Nectar and traditional organic living soil gardening do share a lot of similarities and we suggest utilizing the core foundation of that model by ensuring a healthy, thriving soil food web. This is easily achievable using a combination of compost teas and cultured beneficial microorganisms on a regular basis.

One of the most controversial topics among cannabis growers is how often and how much to fertilize your plants. This can be a tough thing simply because of the large number of variables that are present: plant type, growing medium, environment, growth stage, plant girth, the list goes on. Having a keen eye for plants' nutritional needs is always required when deciding when it's necessary to replenish the soil's mineral levels. Whether you choose to use a soilless mix (lacking soil food) or a mineral-rich, composted medium is a huge factor in determining when you will have to start feeding your plants from the bottles. I highly suggest obtaining soil from Nectar for the Gods (if not making your own) as they make a few different soil mixes to meet your growing styles that will work perfectly with the line and provide the grower with small batch pest free medium with the highest quality materials available." ~ **Mikael Leeplop #nectarassassin**

General Information:

The Nectar for the Gods nutrient line is unique to the industry. It pushes the most seasoned growers to forget conventional wisdom regarding synthetic/salt based lines and re-think an organic based approach to gardening. Any grower, just starting out, can be justifiably overwhelmed by the time and work involved in using any nutrient line. It requires attention to detail, dedication, and sometimes long hours from seed to harvest. Whether you are new to growing or come to us with experience, do your research, allocate time in your garden, and most of all, love what you do. We believe when you are harvesting your Nectar garden, you will find that all of your efforts were well spent.

Please take note of these important pieces of information:

1. The feeding schedule reflects the collective knowledge and experience from countless Nectar for the Gods gardeners. Gardeners like yourself who submitted their feeding regimen to assist us in creating these charts. It is a **reference**, a starting point, and **by no means pure science for every plant**. Find what works best for your plants and share your schedule with us.
2. 'Nectar For The Gods' is a Calcium based nutrient line... **pH is CRITICAL!!!! We encourage our gardeners to maintain their solutions at a pH value in the 6's at all times for optimal results.** pH levels should NOT go below 6.0 or above 7.0 with this line.
3. **Know your soil.** The most important component in every garden, besides the nutrient program you choose, is the potting medium that you choose. Not all soils are created equally, so **we encourage all gardeners to test their soil's pH and PPM values before planting in them.** Do not let the package sell you on a medium, because talk and fancy art is cheap. Make sure to do your own testing, and prepare your medium according to your results. We recommend a simple test called the [slurry test](#) (See FAQ in this guide for the steps). This test will explain what is going on around your plants' root zone.
4. Nectar for the Gods performs best when the medium is in the pH range of 6.3-6.7 and the PPMs are between 300-500 (using an EC x700 scale meter). If your slurry test comes out with a lower pH and/or a higher ppm, a pre-planting flush with Herculean Harvest and/or Olympus Up Liquid Lime will help correct those issues prior to planting.

Calibrating Meters:

It is imperative that you keep all of your meters calibrated. We cannot stress enough, the importance of regular meter calibration (using calibration solutions), and that of storing your meters properly. Every meter is different, so follow the manufacturer's instructions on how to calibrate and prepare the meter. For pH meters, you should be given two reference solutions (normally at pH 4 and pH 7) and a storage solution. It's very important to never let your pH electrode dry out. If it does dry out... even ONCE... the electrode could be damaged. TDS meters are more accurate when calibrated at levels that are as close as possible to the sample being tested. If you do not calibrate your EC/TDS/PPM meter using the correct calibration solution, your meter could give you a very inaccurate reading.

Mixing Tip:

There is no REAL important way to mix these nutrients as long as they are being added one product at a time, to a large volume of water. After adding each product to the water, stir before adding the next.

“I personally mix right down the feeding schedule with a few exceptions. If you are NOT using Bloom Khaos as a root drench, go right down the feeding schedule except that you add the Herculean Harvest and then the Zeus last, and then pH adjust. Zeus is one of the only neutral to base pH products in our line so I add it after all is said and done. If you are using Bloom Khaos as a root drench, it would be Herculean Harvest, then Zeus, and last to go in would be Bloom Khaos, before pH adjusting. The reason this is important is because once Bloom Khaos makes it into the mix, it wants to start wreaking havoc on the calcium, so the less time it is in the solution and the quicker it gets into the root zone, the better.” ~ Scott D. Ostrander

Feeding Tips:

1. If you are new to the line, we recommend you start with half the dilution rate and increase the rate to full strength over a period of a few weeks. This insures that your plants can accept the nutrition.
 2. By their nature, these nutrients settle quickly. It is crucial to shake the bottles thoroughly before pouring and to stir the feeding mixture throughout the mixing and feeding process.
 3. When in doubt, flush it out. If you are noticing signs of deficiencies like calcium, potassium, magnesium, or nitrogen, do not rush out and buy a bottle of pretend cures. In most cases, it has something to do with your soil numbers. This would be a good time to slurry test your medium to see what is going on. We can usually tie up and unlock the elements that may be deficient by flushing with Herculean Harvest, pHed to 6.5 with Olympus Up. The calcium in these products helps tie up salt and neutralize acids. Most of the elements your plants need to promote healthy growth attach themselves to calcium molecules, facilitating their uptake into the plants.
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Medusa's Magic: 2-5-2 – Part 1 of the Basic 4

*3% Ca, 1% Mg, contains Kelp, Glucose and Sucrose for microbial food

Foliar Feed YES

Root Drench YES

Ingredients: Soybean extract, feather meal, bone meal, worm castings, potassium phosphate, magnesium sulfate, potassium sulfate and calcium nitrate

Product Details: Medusa's Magic was originally designed as "Part A" of a three-part nutrient line. To brew Medusa's Magic, proteins and enzymes are gently extracted from the raw materials, then suspended in a worm casting tea for a micronutrient and microbial punch. The Nitrogen in Medusa's Magic is derived from a protein hydrolysate, which will result in a healthier, more natural growth pattern in your plants. The healthier the plant is, the more efficient its natural response will be to produce its own defense mechanisms against pests and disease. In addition to being readily available to the roots, this digested form of nitrogen encourages the growth of microbiological activity at the root zone to aggressively break down elements locked in the soil medium for uptake into the plant.

Features:

- Unique product for the horticultural industry
- Contains the gentlest form of organic nitrogen
- Made without using salts to stabilize the ingredients

Medusa Information from Scott D. Ostrander ~ This is kind of our pseudo base grow formula, if you will. It has low numbers on the N-P-K, but is fully digested and available. The nitrogen in this product is derived from digested feather protein. It's a very gentle and effective form of nitrogen, very hard to burn. We use soybean meal, feather meal, bone meal, yeast for microbial activity, tons of worm castings, and Humic acid by BioAg. Gentle on the microbes, gentle on the mycorrhizae.

All nitrogen can be fixed in the plant naturally. The healthier the plant is, the more it's going to be able to take up those types of nutrients. What we do is: we base everything we have created on a calcium molecule. Through chemistry, calcium is the most active element that we can put into a plant. It carries the most nutrients into the plant and creates the most bonds with other elements in the soil to become available to the plant. We've chosen that protein version of nitrogen all through extraction off the feathers because it's: a) the simplest nitrogen molecule we can get naturally, and b) it is so available, it does not need to be broken down; you can foliar feed it, and it will be immediately absorbed into the plant. It is one of the most unique forms of nitrogen available to us. It comes from animal protein, so it's going to be a little bit faster acting than if you were going to use an alfalfa or some form of nitrogen based protein from a plant material. This way, it's getting in there salt free unlike, say, urea Nitrogen. Urea is probably the worst form of nitrogen you can give to a plant, especially if you are susceptible to pests, mold and mildew. Urea Nitrogen forms are usually high in salts and high in water molecules. They promote growth and that's it -- not health, not strength, not solid structure; they promote water intake into the plant.

Substitute for Medusa's Tip:

"You can still grow without Medusa's. If you didn't want to use Medusa's because of the calcium nitrate being used [as a neutralizer and stabilizer of acids from chicken livers], you can replace it with Pegasus Potion. The Pegasus Potion is just feather proteins so it doesn't have all the other elements that we put into the bottle of Medusa, it's literally just feather tea. Again, the nitrate is unavailable to the plant, but some growers do choose not to use it." ~ Scott D. Ostrander

Why is there Calcium Nitrate in Medusa's?

If you look on the Medusa's bottle, you'll see there is Calcium nitrate in there. We put it on the label so people knew it was in there, but the reason it's there is not to offer nitrates to the plant. Instead, it was the only preservative we could find to neutralize the acids from the digested chicken livers. As the process goes... We start with fresh, whole chicken livers and grind them up in Cuisinart blenders. Once ground up into a slurry pâté, we then toss them into a 500-gallon heat exchanger to heat the solution up to over 180 degrees. In this process, we are able to isolate the proteins, the vitamins, the humates, enzymes, and organic acids that are contained in the livers. Once that process is complete, we then filter off the connective tissue and meat/muscle tissue, leaving behind a cocktail of enzymes, acid, vitamins, and amino-rich slurry of pure plant nectar. Now usually, with most of our products that need stabilizing, we would use one of our many organic acids to do the pH to stabilize this concentrate. However, because livers already contain their own natural acids, it does not like to be preserved with another acid. [Extra acid] almost seems to stimulate it to spoil faster and/or explode in the bottles. So we played with different salts/preservatives to see which one would be the least harmful, and out of all of them, we found that the chemistry with calcium nitrate was going to be the most beneficial. Once the calcium nitrate is added, the nitrogen breaks its bond with the calcium and bonds to the acids of the liver. This action frees up the calcium to be a free molecule. The nitrate becomes a compound with the elements of the liver, rendering the calcium nitrate unrecognizable. The short and the long of it is that we do use some, not a lot. We put it on the label so people know it's in there, but there is virtually no way to detect it there. Most calcium nitrates, raw, have an N-P-K of around 15-0-0. The Medusa's N-P-K is a 2-5-2, and the 2 percent nitrogen is derived from the Pegasus Potion that we add to the blend. We discussed this about a few years ago on NFTG Growers FB page. Though indeed we do have to use it, it's just not traceable. ~ Scott D. Ostrander

Is it ok to use blood meal as a substitute for Medusa's Magic?

"We found that nitrates, like through bat guanos, blood meals, most of your manures...the nitrates in them are very high, they grow plants really big, really fast and they're really green but they also create really thin cell walls that send out an infrared of stress. As plants are stressing, going through these cycles, they're sending out infrared signals saying 'I'm damaged, I'm the weakest thing in this field, come and eat me.' We've taken all of our nitrogen into protein form in the Pegasus with feather proteins, so there are no active hot nitrates going into the plants. Using our protein based nitrogen, you should notice healthier plants that aren't sending these infrared signals to bugs."— Scott D. Ostrander

"For more information about what Scott is referring to, you can perform a google search, there are plenty of studies related to urea, ammonium or nitrate nitrogen issues if there is an excess supply of nitrogen and thus, easy access for sucking insects to the nitrogen supply. Plants with excessive nitrogen levels, can attract mites and aphids. High nitrogen levels also promote leafy, new growth. While this may seem like a good thing at first, the new foliage is often weak and straggly, making it the perfect target for insects. In short, avoid urea and nitrate nitrogen." — **Bill Burns**

Medusa's Notes:



Gaia Mania: 1-5-1 – Part 2 of the Basic 4

*1% Ca

Foliar Feed YES

Root Drench YES

Ingredients: Soybean meal extract, feather meal, bone meal, worm castings, Humic acids and Kelp extract (*Ascophyllum nodosum*)

Product Details:

Gaia Mania is one of Oregon's Only Organics' original products, and it was designed to work as a stand-alone nutrient for home gardeners. This product has been around for many years, under many labels and has now found its home with the gods as Gaia Mania. Gaia Mania is a careful blend of organic materials, enzymatically processed to extract only proteins and humates. This digestion process is the preliminary step in the absorption of vitamins, acids, and minerals by the plant. Gaia Mania has the ability to feed plants immediately, and is also designed to promote microbial populations in your medium, offering greater protection to plants' root systems. All of the nitrogen in this product is protein based. This is the healthiest form of nitrogen for plants, promoting strong, healthy growth without a tendency toward elongation as with sodium based nitrates. Plants grow healthiest when they are grown with proteins, organic acids, and calcium based products.

Note: The addition of organic calcium sources like Herculean Harvest, Demeter's Destiny, or Olympus Up will improve the uptake of Gaia Mania.

Features:

- Feeds plants immediately
- Not stabilized with mineral salts
- Fully chelated organic nutrients
- Gentle on microbial and fungal life
- Protein based non-urea form of nitrogen
- Designed to help promote microbial populations
- See quicker response in healing time and stress relief
- Use as a nutrient flush to aid in the removal of excess nutrient salts

Gaia Information from Scott D. Ostrander ~ Would be considered our base bloom formula. This product is rich in vitamins, calcium phosphate, and trace minerals, balanced with lots of liquid bone meal to aid in the delivery of other nutrients. We get the 5, in 1-5-1, off of bone meal; a calcium phosphate and we get the nitrogen from feather proteins. Contains very similar ingredients to Medusa's Magic, the difference is the concentration load between them. Gaia has a higher phosphate load using bone meal, a higher concentration of worm castings for the microbial population, and higher Humic extraction we get off of the worm castings. It's a great stimulator. This is the vitamin B12 shot for your plants. If you have a plant that is stressed out, it helps bring it back into a healthier state. One of the key components is the chicken livers that we digest to make this product. It has a very interesting protein, vitamin, and enzyme load that brings in the health of the plant. There are so many vitamins in chicken livers. Vitamins A, B, C, E, B2 and B12. We are able extract them out and put it into a solution where the plant can uptake it through a calcium load. The nice thing about them is you're never going to get the elongation and stretching of it; you're going to get heavy branching -- compact growth with cellular structure.

Gaia 'Flush with a meal' Tip:

Early in a plant's life, like a child, it is searching for the essential building blocks that will make up its entire being and overall health for its whole life. Because of the availability of fully chelated nutrients in Gaia Mania, our gardeners have found a quicker response in healing time and stress relief in stressed or chemical dependent plants. Gaia Mania acts as a nutrient flush as well. With its calcium load, not only will it aid in the removal of excess salts in the medium, but it also offers an immediate meal for your plants to uptake while energizing their microbial field to promote root protection.

Gaia Tip for stressed out Plants:

Mix 2 TBL of Gaia Mania per gallon of water and adjust the pH to 7.0. Water plants until solution runs out the bottom of the container. If issues persist, repeat when the soil begins to dry out. According to some users, this flush works well to alleviate post-transplant stress.

Gaia Notes:



Zeus Juice: 0.5-4-0 – Part 3 of the Basic 4

*7% Fulvic and Humic Acid, 0.5% Kelp

Foliar Feed YES

Root Drench YES

Ingredients: Fulvic acid, Humic acid, and Kelp extract (*Ascophyllum nodosum*)

Product Details: Zeus Juice was “Part C” of our original three-part line. Zeus Juice represents the god of all plant nutrition, containing a full complement of metabolically active organic acids and compounds that are not generally found in the industry’s plant foods or supplements. It is the catalyst in the line and is an essential part of nutrient absorption without a microbial field. The compounds in Zeus Juice are 100% water soluble and are absorbed immediately, acting as a catalyst to produce accelerated growth and nutrient uptake. In addition to increased metabolic rates, Zeus Juice offers optimal nutrient availability, healthy plant growth, healthy, prolific rooting and protection from transplant shock.

The difference between Zeus Juice and many other similar humic products is the expense of using a naturally derived humic and fulvic acid which is more bioavailable than lower quality chemically derived humic acids. This product is made from Humic and fulvic acids purchased from Bio-Ag, the most respected provider of humic acid products in the world.

Features:

- Unique humic acid product for the industry
- Plant-available enzymatically digested humates
- Made with Bio-Ag Ful-power Humic & Fulvic Acids

Zeus Juice Information from Scott D. Ostrander ~ An essential growth enhancer, Zeus is made with BioAg’s Humics and Fulvics. Zeus Juice is derived from BioAg’s TM7 Humic that they solublize for us, along with the FulPower Fulvic. The stimulator, the tongue depressor for the roots’ stomata, it’s what allows the rest of these proteins and enzymes to reach into the plant and be taken up. It’s a catalyst that is water free. We fill our tank with BioAg Pure Humic and Fulvic acid, and then we add our own Amino acid and vitamin load. BioAg’s Humics are bog derived and therefore bio-available to the plant as well as the microbial field, in the form of pure Humic digest, which is a little bit different delivery system. It’s not like other Humics that are created with a phosphoric acid wash; it’s an enzymatic digestion that is used to create these Humic acids. There is no valid reason to bump this product dosage up. More is not better, it works great as is, after 5 or 10 ml per gallon, just stop throwing money at it, because that’s enough to complete bioavailability in the root zone. Most soils are going to have natural humates in them anyway, so you’re already going to get that stimulation of growth and plant development.

Zeus Tip:

“If you are using BioAg FulPower with NFTG, Water in the Zeus and foliar feed the FulPower. Fulvics are much more efficient as a foliar feed than they are a root drench, and Humics are much more efficient as a root drench, and not recommended as a foliar. We do not offer a Fulvic acid product because the best has already been made. We won’t spy, rebottle their product, and call it ours. The Zeus was a recipe that we have had for 15 years made from Leonardite Shale until we learned that Shale versions of Humic are not as bio-available as Humics from fresh-water vegetation. Once we discovered BioAg’s products we contracted with them to be able to use their Humics and Fulvics in our blends.” ~ Scott D. Ostrander

Zeus Seed Germinating Tip:

Zeus Juice can also be used as a germination aid, softening the seed coat and providing nutrients for the first stages of life. Zeus is important during all stages of plants' development but particularly vital in the early stages. That is why the pre-planting treatment of seeds is very effective. "Use at 1 tsp to 1 oz of room temperature water in a small enough glass to just cover the seed. Soak for 8-12 hours and plant directly into the soil. The Humic acid in the Zeus will begin the breaking down of the seed coat which turns that into an enzyme (Amylase). That enzyme then converts to first a starch and then to sugars (Energy) for the cotyledon to use to promote growth and germination." ~ Scott D. Ostrander

Note: You will not see Fulvic Acid listed as an ingredient on NFTG products. Humic and fulvic (according to the state of Oregon and California) are the same thing. Even though they are drastically different, no manufacturers are allowed to claim fulvic acid on their products if they are registered in Oregon or California. Humic acid is most effective watered into the root zone, and fulvic acid is more effective as a foliar feed. Fulvic acid is simply purified Humic acid. I highly recommend reading through the BioAg website for more information. <http://www.bioag.com/>

Zeus Notes:



Herculean Harvest: 0-6-0 – Part 4 of the Basic 4

*1% Calcium, 10% Phosphate with 6% plant available

Foliar Feed NO

Root Drench YES

Ingredients: Steamed bone meal. Also contains a waste byproduct of the manufacturing process of gamma (used in Bloom Khaos) goes into this product.

Product Details:

Hercules was known for his strength and power -- a perfect name for a product that gives your plants just that. Many production problems originate with having too much nitrogen and potassium, and not enough available calcium and phosphate. Herculean Harvest increases the availability of calcium and phosphorus to your plants and soil. This produces a wide range of benefits to plant health, structure, and flavor, contributes to a vigorous soil food web, and improves accessibility of nutrients. The active ingredient in bone meal, calcium phosphate, helps to carry all nutrients to the plant, except for nitrogen and potassium. Calcium is the “queen-king” of all nutrients, aiding enzymatic action, feeding soil microbes, improving nutrient availability and cell wall integrity, and encouraging solid, strong stem growth (vs. hollow in a calcium-deficient situation) which, in turn, prevents stem breakage. Calcium promotes smooth, sweet, aromatic produce, and generally leads to healthier, more vigorous growth and increased pest and disease resistance. Calcium also increases the cation exchange capacity of soils, making nutrients more available to microbial activity and ultimately to the plant. The addition of Herculean Harvest to any nutrient line will increase size, yield weight, and aroma and intensify flavor of the plants’ fruit. It also helps to improve accessibility of the available nutrients and washes salt from a potting soil or soilless medium. It can be used as part of a soil flush and/or as a pH fixing salt flush solution.

This innovative approach to feeding distinguishes NFTG from any other nutrient line.

Soil and coco gardeners alike, using Herculean Harvest to flush for ten to fourteen days at the end of the plants life cycle, will notice a dramatic increase in terpene development and complexity. The addition of Aphrodite’s Extraction and Olympus Up will aid in the ripening process and add even more complex terpenes.

Features:

- Unique product to the horticultural industry
- Fixes pH issues in growing mediums
- Promotes solid stems through stronger cell development
- Superior quality of finished products
- Rock-solid yield increase, guaranteed
- Organic calcium based product
- Created with BioAg Fulvic Acids for maximum bioavailability
- Also works as a nutrient flush: Bonds to nutrient salts in soil mediums

Herculean Information from Scott D. Ostrander ~ Use this product start to finish. This is our everything: bloom enhancement, calcium supplement, salt leaching agent, flavor enhancement, flower hardener, etc. It is offering the most available form of calcium to your plant to produce its cells, all of the time. Herculean Harvest takes 8 weeks to process through a tank system. We break down this product into its finest protein and calcium phosphate, a powder form, and then we fill the

tank system with Fulvic Acid and wait for the digestion to occur. Calcium phosphate from the bones will actually create a bond with the sodium inside the medium. The bond will lock up the salt creating a new compound that gets tied up in the medium, waiting for a microbe to come through. The microbe ends up consuming the calcium, releasing that sodium as a protein, an enzyme, or an organic acid. Flushing with bone meal at the end will force the rocks up into the flower and fill all the voids in the fruit. It helps mitigate the high EC, high salt content. If you're using a 3-part synthetic line, do a bone meal flush with the pH up every 2 weeks at a minimum. During this flush, you're giving your plant the calcium phosphate and calcium proteins it needs. You're desalinating your medium, offering your plants more nutrition, and creating more aggressive growth... and most importantly, your CEC (Cation Exchange Capacity) will increase, promoting protein pumps in your roots to take in more natural nutrients from the medium. ****YOU WILL USE LOTS OF THIS!!****

Herculean 'do not' Foliar Tip:

"Herculean Harvest is not a good foliar feed because it is predominately calcium phosphate which has a really difficult time being absorbed through the leaf stomata. The bottles of Demeter's Destiny, Herculean Harvest, Triton's Trawl, Persephone's Palate, and Olympus Up are best used as root drench. For a good calcium foliar feed, check out Xtreme Gardening CalCarb foliar pack. It is nano-technology calcium that is crushed into a form that the plants can absorb through the stomata. It is the only calcium product I foliar feed, with the exception of some Aphrodite's now and again. I'm not sure if the foliar of Aphrodite's does anything, but it's worth a shot. I would believe that the foliage would at least accept the monosaccharides." ~ Scott D. Ostrander

Herculean Crust Tip:

During flowering, the increased use of Herculean Harvest (6 Tablespoons PLUS per gal for some gardeners) will cause a layer of 'bone gum' to develop on the surface of the medium. Nectar Gardeners have reported that a weekly addition of 5-20ml/gal of SLF-100 to the feed solution should aid in breaking down the bone gum. Other helpful tips include: scratching or raking up the crust with a fork or similar tool, root drenching with a worm casting tea, top dressing with worm castings and/or top dressing with bokashi. Do not attempt to substitute Biocozyme, Hygrozyme or Mammoth P in place of SLF-100. The same types of bacteria are not available in any of those other products to break down the calcium or 'bone gum'.

Herculean Flush Tip:

Salt buildup/lockout can be remedied by initiating a 2 TBL per gallon Herculean Harvest flush pH'd in the mid 6's. Fully saturating the soil with this calcium concoction will tie up excess salts and turn them into organic compounds that can then be broken down by a microbial field so the plant can access them again.

Question: I just picked up a bottle of Herculean Harvest and the NPK reads 0-6-0. The last 2 bottles I used were 0-10-0. Was there a change somewhere?

Answer: "These products are the same. The regulations in certain Ag departments changed. Both bottles contain the same phosphorus percentage. There are just different measuring requirements in certain states." ~ Scott D Ostrander

Question: But the NPK % still says % of corresponding nutrient, right? So did a form of the P you counted before no longer count as P?

Answer: "Exactly, they went from total phosphates to available phosphates, and we have to claim a minimum guaranteed analysis. Since bones are a commodity, the P changes from batch to batch, depending on the farm, where the cows were raised, the food they are given, and the process used to steam the bones. So we have seen anywhere from a 7% up to 12% in the finished product. So to

avoid "stop sales" orders and fines from certain states, we go with the minimum guaranteed amount. The same dilution rates apply to all bottles so as to not overdo it." ~ Scott D Ostrander

Herculean Notes:



Demeter's Destiny: 0-0.5-0

Foliar Feed



Root Drench



Product Details:

Demeter's Destiny is Nectar for the Gods' answer to calcium-delivered-magnesium, correcting and preventing deficiencies. This special blend of different calcium sources and chelating acids naturally chelate the magnesium already present, locked in your soil medium and then deliver it to the plant in a non-metal form. Demeter's Destiny is more useful than any synthetically derived cal/mag supplement. Most synthetic calcium and/or magnesium products are undesirable because they also apply nitrogen to your crop in the form of calcium nitrate and magnesium nitrate. Magnesium deficiencies in soil and coco mediums can be completely solved by applying Demeter's Destiny. Demeter's Destiny is the first product of its kind to deliver magnesium in a calcium package, and since calcium is so readily absorbed by the plants, this means magnesium is more accessible to your plant, and less likely to get locked out.

Features:

- Helps to carry most nutrients into the plant including magnesium
- Improves nutrient availability and cell wall integrity
- Encourages strong, solid stem growth to prevent stem breakage
- Promotes the cleanest, sweetest, most aromatic produce
- Offers microbes and root systems balanced forms of calcium

Demeter's Information from Scott D. Ostrander ~ Demeter's Destiny is the non-nitrate answer to Cal/mag deficiency (along with using Herculean Harvest). There is no magnesium in this product. This is a calcium phosphate. An unbonded liquid calcium, digested from milk products. We use an organic acid to digest the calcium molecules, and the residual chelation materials in the Demeter's are designed to react with coir fiber and peat moss, extracting natural forms of magnesium and potassium from the medium through chelation. Potting soils are chock full of magnesium, whether it's a stone meal, glacial rock dust, gypsum etc. Coco fiber can contain up to 40% magnesium. When used as a soil drench, Demeter's Destiny is bonding to the coir and peat in your soil mix. The microbes are digesting the now bonded calcium and pooping out the magnesium and potassium, making it plant available, where it is now absorbed by the plant in non-metal form. It is very effective as long as there is minimal salt present in the root zone. If the salt level builds up around the roots' stomata, the plants ability to naturally extract calcium and magnesium from the coir fiber is hindered. Generally, this can be remedied by initiating a Herculean Harvest flush/reset because your ppm's are likely too high in the soil and the calcium is not being accessed through the root zone. This calcium flush will tie up excess salts and turn them into organic compounds that can then be broken down by a microbial field so that the plant can access them again. Follow that up with a higher dose of Demeter's Destiny to adhere to the coco and peat and allow the microbes to make magnesium and potassium available to the plant again. This is the second biggest selling product, next to Herculean Harvest. I run Demeter's all the way through up until the last 10 days because it keeps that magnesium flowing, without that hay tasting burn in the end product. The bowl should go out after lighting it, and if it just keeps burning, there is an abundance of magnesium in your final product. This is the one product that many people running other lines (such as Advanced Nutrients, General Hydroponics, Botanicare, House and Garden, Cyco) usually add to their regimen for a nitrate free calcium boost.

Demeter's and RO/Distilled water Tip:

“The primary elements of tap water are calcium and magnesium. Choosing Reverse Osmosis (RO) or distilled means you remove them completely and will only get those essential elements from your Nectar feedings. Many growers report success with upping their Demeter's Destiny inputs when using either distilled or RO water. If you're running into a calcium or magnesium deficiency while using one of the above water sources, the easiest way to alleviate the issue is to add double, and sometimes triple the feeding chart amounts for Demeter's Destiny.” – **Bill Burns**

Demeter's Notes:



Athena's Aminos: 0.5-0-0

Foliar Feed YES

Root Drench YES

Ingredients: Natural water soluble amino acids. Derived from Protein Hydrolysate

Product Details:

Amino acids are the building blocks of proteins, which are the basic components of living cells. Every plant needs certain compounds for growth beyond soil, light, water, and CO₂. Studies have proven that Amino Acids can directly or indirectly influence the physiological activities of the plant. Amino acids are the building blocks of proteins, which are the basic components of living cells. Plants take amino acids from the soil and synthesize more using elements sourced from soil, air, and water. However, plants can generally use more amino acids than they can find or synthesize in their natural environment. If amino acids are not readily available or are not abundantly available, plant growth may slow to match availability of the most limiting factors of temperature, water and light. Athena's Aminos provides an abundant amino acid source of nitrogen that optimizes protein production and allows for maximum growth rates. By adding an amino acid source, you enable your plants to build proteins as quickly as they possibly can. With Athena's Aminos, you can expect to see faster, healthier growth, resulting in bigger, more vigorous plants along with speedier recovery of stress conditions. The 20-L amino acids in Athenas Aminos are essential metabolites in the process of the formation of healthy leaf tissue and max absorption of light energy. These amino acids help to increase chlorophyll concentration (lush green leaves) leading to a higher degree of photosynthesis. Plants lacking all of the amino acids are unable to synthesize carbohydrates; resulting in decreased yields and may lead to death of the plant in extreme cases.

Features:

- Grows more vigorous plants with greater ability to resist pests and diseases
- Overcomes one of the most common limiting factors to plant growth
- Allows for faster, healthier growth
- Allows plants to achieve maximum cell production rates

Athena's Information from Scott D. Ostrander ~ Made from fermented pig skin and pig hooves. Pure L-Amino acid liquid, 22 L-Amino acids designed for cell building and nutrient uptake in plants. It's interesting because, by label, there is no nitrogen and when you're looking at the amino chain, there is also no nitrogen, but when that amino chain is digested and broken, it breaks off the two ends on the ends of that chain and create a very mild nitrogen which acts like a Nitrogen, but does not stretch, elongate or stress out the plant. It's not going to create crazy bushy plants, but it does give them that growth energy to drive that amino acid into the cells.

Athena's FAQ on reducing Nitrogen loads from Scott:

"I am hearing people say they cut out Athena's in late flower. What is the purpose? It may be recommended [by some growers] to cut out Athena's, or at least cut it back, because they have found that a specific genetic/strain (Cookies and some Kush, especially) really like to find nitrogen and stay green. Some growers say that they reduce or eliminate Athena's along with some of the other 'N' nutrients late in flower when they are trying to lower the nitrogen load. However, the Nitrogen in Athena's is so low (0.5%) that most flowers and genetics take no negative effect. The flowers need a little nitrogen to develop all those sugar leaves. Cutting out N and amino acids

completely is essentially robbing the plant of an element and compound that it does need. (Just in different quantities at different stages of growth). Amino acids are the building blocks of proteins, and proteins are what develop the flower. Therefore, amino acids are important in late flower. If you are wanting to pull back on your nitrogen load in flower, instead of dropping Athena's, you should look more at reducing and/or eliminating Medusa's Magic.

Some are also having success by removing the amino acids that come from mammal proteins (in Athena's) and feather proteins (in Medusa's) and replacing them with amino acids from fish bone (in Triton's Trawl) and crab and shrimp shell (in the Kraken). This way, there are still plenty of amino acids to build proteins, and you have a lot less Nitrogen for the plants to access during the flowering stage, resulting in a nice fade at the end. Here's a tip: Instead of upping Athena's from 1 to 2 TBL/gal in mid-flower as it shows on the schedule, up Triton's Trawl from 1 to 2 TBL/gal. There's an amino acid that's unique to ocean creatures, when it's triggered in the plant, it's changing the aesthetics. Triton's will maintain availability of amino acids and calcium with the addition of extra fish cartilage, along with a higher phosphate load than you'd get from a land mammal amino." ~ Scott D Ostrander

Athena's Foliar Feeding Tip:

Plant stressor such as high temps, low humidity, pests or under/overwatering wreak havoc on your plants metabolism. Foliar feeding Athena's before, during and after stress conditions has both a preventing and recovering affect. The opening of the stomas is controlled by both external (light, humidity, temperature and salt concentration) and internal factors (amino acids concentration, abscisic acid etc) The Stomas are closed when light and humidity are low & temperature and salt concentration are high, when stomas are closed photosynthesis and transpiration are reduced (low absorption of macro & micronutrients) and respiration is increased (Carbohydrate destruction) In this case the metabolic balance of the plant is negative resulting in slowed metabolism and plant growth. L-Glutamic acid in Athena's acts as a cytoplasm osmotic agent of the "Guard Cell". Thus, favoring opening of the stomas.

Athena's Root Drenching Tip:

Helps in improving the microflora of the soil thereby facilitating the assimilation of nutrients. Amino Acids have a chelating effect on micronutrients. When applied together, the absorption and transportation of micronutrients inside the plant is easier due to the chelating action and to the effect of cell membrane permeability.

What are some of the important L-Amino Acids in Athenas Aminas?

- L-Glutamic Acid & L-Aspartic Acid, by chemical reaction, give rise to the rest of the amino acids
- L-Glycine & L-Glutamic Acid are known to be very effective chelating agents for micronutrients L-methionine is precursor growth factor that stabilize the cell walls of the microbial flora
- L-Proline & hydroxyroline act mainly on the hybri balance of the plant strengthening the cellular walls in such a way that they increase resistance to unfavorable climatic conditions L-Alanine, L-Valine & L-Leucine improve quality of fruits
- L-Histidine helps in proper ripening of fruits

Athena's Notes:



Bloom Khaos: 0.5-10-5 – Calcium Facilitator

Foliar Feed YES

Root Drench YES

Ingredients: Kelp extract (*Ascophyllum nodosum*), gamma (proprietary ingredient), and phosphoric acid

Product Details:

Bloom Khaos is Nectar for the Gods' patent pending secret weapon for flower production and alleviating hidden hunger. When using Bloom Khaos as a foliar feed in veg, one should notice more flower sites, larger, denser flowers, and superior color, flavor, and aroma. Bloom Khaos supplies your plants with chelated forms of phosphate, nitrogen, potassium, and calcium. Bloom Khaos improves plant health and vigor while reducing stress at crucial times of the plant's life cycle, such as: transplanting, flower transition, and prior to taking cuttings. Achieving maximum weight yields when using Nectar for the Gods nutrients will require feeding the maximum dosage rates of Bloom Khaos and Herculean Harvest. Bloom Khaos works best if used daily as a foliar spray in the early stages of growth and up to a few weeks into flowering. After that, foliar feeding may be taboo, but it works well as a water-in additive. Foliar spray up to twice a day or as little as once a week in the vegetative cycle to see the benefits of stronger stems, shorter internodal length, and ultimately more vigorous flower sets.

Features:

- Calcium-Facilitator
- Reduces plant stress
- Encourages more flower sites
- Yields larger and denser flowers
- Grows stronger and thicker stems

Note: Do not use this product without organic calcium. It causes the plants to crave and rapidly uptake calcium, and without the proper calcium availability in the soil, it may quickly cause deficiencies in your plants.

Bloom Khaos Information from Scott D. Ostrander ~ Where do I start with this product? You can see it on YouTube, and all I can say is that when foliar feeding with this, be sure to always have adequate levels of liquid bone meal going into the root zone at the same time. When using the Khaos, having calcium phosphate and calcium bicarbonate available to your plants is extremely important. Mixing the Khaos with any salts will tie up the calcium and make it less available. The best balance to driving the Khaos is increasing the Herculean Harvest at the same time as increasing the Khaos. Those two go hand in hand for flower development and overall weight. Bloom Khaos acts as a calcium facilitator -- a calcium magnet, if you will. When Khaos is sprayed under the foliage, it triggers the plant's desire for calcium (for cell development and cell division). As a foliar in Veg, the Khaos, Foliar, and Herculean Harvest, watered in, work together creating tighter flowering sites, more branching and aggressive fruit stacking. When these two products are in balance, it enhances the stage the plant is currently in. Use at a minimum of every other day. Once the plants are in the bloom stage and you begin to apply it to the root zone, this combination will promote harder flowers, heavier weight, and richer oils. One trick that gardeners have figured out to be the driving force to gaining weight in the fruit is to slowly increase the doses of Khaos along with the application rate of the Herculean. The more Herculean we can get to relocate in the fruit,

the heavier the fruit will be. In Denver, we see the test results come back from our commercial growers and what they have found is that the plants sprayed with Khaos and fed lots of Herculean Harvest had higher levels of active ingredients in the fruiting bodies than the control plants that were left to the regular recipe without Khaos.

You can also use Bloom Khaos as a soil drench the week prior to final flush to grab all the available Calcium in the soil and relocate it to the fruit. Do NOT use a calcium nitrate with Bloom Khaos because the nitrate will create a thinner cell wall, and you don't want to be in the 4th week of flower, pumping your plant full of nitrogen (any nitrate is a nitrogen base). Also, the active ingredient to Khaos is undiscovered by science. It is a patent pending compound that our scientist has developed after thirty years of plant science and research. The active ingredient is a calcium facilitator that promotes cell development and cell division.

The feed chart shows foliar feeding Bloom Khaos from Veg to week 3 or 4 of flower. You can go later, just spray lower side of the plant, avoiding any flowers. When you go past that, then you can use from 1 tsp up to 1 TBL per gallon in your drench. Plants will not get too much of Bloom Khaos as long as you supplement properly with Herculean Harvest. Find that special number that works for you. As a guideline, if you add Bloom Khaos at 1tsp per gallon to every feed, you need to up Herculean Harvest 20-30% from what the feed chart says. If you are going to go to 1 TBL of Bloom Khaos, add 1-3 TBL more Herculean Harvest.

If you run out of Herculean Harvest, do NOT use Bloom Khaos again until you get Herculean Harvest back into the root zone. If you're using a Tablespoon of Bloom Khaos and you're not feeding enough Herculean Harvest, you may see calcium deficiency.

Bloom Khaos Tip:

"There is enough calcium in the Herculean Harvest, Demeter's Destiny and Olympus Up to meet the Bloom Khaos needs. If you are not using Demeter's Destiny in your feedings and/or you're not using Olympus Up to adjust pH, then you may need to be supplementing an even greater amount of Herculean Harvest. However, a low pH will still prevent all that calcium from being available." ~ Scott D. Ostrander

Bloom Khaos Cal Deficiency Tip:

When using Bloom Khaos, watch for 'unique to Nectar' calcium deficiencies: curling leaf tips, "taco-ing" leaf edges, or curly-q leaves. To remedy or prevent calcium deficiencies and to fully unlock the potential of Bloom Khaos, we recommend using the following Nectar for the Gods products in your soil drench feedings, alongside Bloom Khaos: Herculean Harvest, Demeter's Destiny, Aphrodite's Extraction, and Olympus Up. Please refer to the Nectar for the Gods feeding schedule for guidelines on application rates.

Bloom Khaos Foliar Mixing Tip:

"Mixing nutrients with Bloom Khaos will work, but the longer the Bloom Khaos sits with other things, the less reactive it becomes in the plant. It wants to react, and it wants calcium. I personally do Khaos all on its own. I spray it on its own so that the active ingredient in the Khaos doesn't react to anything. Even if I want to foliar feed other components, I just foliar feed them twice in a day, once with the bottle of Khaos, and once with my other secret concoction. It is acceptable to add more Poseidonzyme and FulPower Fulvic, but not needed since they both are already in the Bloom Khaos. For the rest of the nutrients that I foliar feed and any preventative pest control that I use, I add the Hygeia Hydration for surface penetration, but the Khaos needs no sticker since it is so reactive." ~ Scott D. Ostrander

Bloom Khaos Veg Tip:

“As a root drench in Veg, Bloom Khaos will make your plants grow taller. You’re putting all that energy into the root zone and they’re shooting that straight to the tops. As a foliar feeding in Veg, it keeps the plants squat because it wants to send out more branching. You’re putting BK right on the source, it’s dividing cells there and making shorter, branchier plants. I like to foliar feed it because I want all my intermodal spacing to be really tight so that when I go into the stretching stage of bloom, all the flower sites are so close together they end up making bigger flowers.” ~ Scott D. Ostrander

Bloom Khaos Flower Tip

“When you go into bloom, what I like is, I do a transition feeding of root drench and foliar with the Bloom Khaos. My goal is to stimulate the flower sites to start as soon as I switch them over, I like to see my first sign of flower at the end of the first week. If I’m foliar feeding at that point, I’ll see it faster, and if I’m root drenching at the same time, I start that elongation the week before I go to bloom so that I don’t bind up and have weird cactusing happen the whole cycle of the bloom stage. Once the fruit is more than just a pom-pom I start watering it in, and then what you’re doing is you’re stimulating your plant that wants to go into production and by adding the BK in with the bonemeal into the root zone it’s going to park all that calcium into the fruit.” ~ Scott D. Ostrander

Question:

Can you elaborate on the amounts of Herculean Harvest needed to help Bloom Khaos reach its highest potential for the plant during its late flowering cycle? You had mentioned 6-8 TBL per gallon in the last few weeks. Please be as specific as you can to help me get a better idea.

Answer. “This is a loaded question for sure. Every environment, gardener, garden, plant strain etc, etc, are different. What we recommend as a guideline is: for every 1 tsp per quart of Khaos you use, you should be watering in at least 2 Tablespoons of Herculean to offer the adequate amounts of calcium. As you slowly increase the Bloom Khaos dilution rate, you will want to balance the calcium needs with the Herculean. When I am playing with a new genetic, I see how far I can push each one. I slowly increase both of these products until I see signs that they are starting to not accept it all, and at that time I do a plain watering once, back the dilution to the last documented happy feed, and maintain that until the flush cycle.” ~ Scott D. Ostrander

Question:

Can you please give me another quick crash course on the use of Bloom Khaos in Veg as opposed to using it in Bloom? Should I start with as little as a 1/4 dose in veg?

Answer: Bloom Khaos is a calcium facilitator that, when applied to the foliage, promotes the uptake of calcium to promote cell building and cell division. When Khaos is used during the veg stage, it promotes more branching, less elongation and thicker stem walls. This is beneficial in veg because it promotes tight inter-nodal flower spacing so when you transition into flowering the flower sites start closer together and as the plants stretch towards the HPS color spectrum in bloom, the flowers have a better chance of stacking and growing into one another forming large top flowers. With every new variety and the beginning use of Bloom Khaos, start minimal, 1 ml per gallon minimal and slowly increase it. Your goal is to help them to build to the maximum level by first allowing them to adapt and accept the doses slowly. ~ Scott D Ostrander

Question:

If I mix up a batch of Bloom Khaos foliar spray and it's the only nutrient in the bottle, how long is the shelf life? Rather, how long can I keep spraying from that bottle before I have to mix up another batch?

Answer: "It would be good for at least a week. No problem. The Khaos will store fine, but will lose potency the longer it sits, especially if it is in tap, well, or a non-purified water source. The active ingredient will want to react to anything in the water." ~ Scott D. Ostrander

Question:

What is the purpose of a 6.2 pH for Bloom Khaos foliar, why not 6.4?

Answer: The target of 6.2 is per Bloom Khaos bottle recommendation. Leaf physiology is different than root. In theory, at lower pH, there is a faster ion transfer across the leaf cuticle and stomata. Root drenching needs to be higher because we are trying to get that calcium molecule to be absorbed by the roots. We are not foliar feeding the calcium, just the Khaos, so 6.0-6.2 is the most reactive to stimulate the uptake of calcium. Phosphorus is more soluble at a lower pH, so it increases absorption and translocation throughout cell walls.

Question:

Is there anything else I should know before spraying Bloom Khaos?

Answer: "You should know fairly quickly, either overnight, and sometimes within a few hours if you spray this and you haven't provided enough calcium. If you can get the right balance of Bloom Khaos and Herculean Harvest, that's when you're going to take your grow from a 1lb per light to 3lb per light. If you walk into your room and you're seeing clawing from the upper and new growth, lay off the Bloom Khaos and hit them hard with the Herculean Harvest. Generally, what's happening is the plant has run out of its calcium reserves in the soil. If you correct the issue immediately, your plants will perk back up and the clawing will go away, but if you allow it to continue for a week or so, they are permanently clawed, but the new growth [when corrected], should be normal again." ~ Scott D. Ostrander

Question:

Are there any strains that don't take well to the Bloom Khoas in a foliar application?

Answer: There have been reports from some growers that certain strains of cannabis don't take well to Bloom Khaos in a foliar spray. Some growers report 'anything Kush' is touchy with Khaos. Also, one grower noticed that Magnesium hogs (which also tend to be Calcium hogs) along with nitrogen sensitive plants don't seem to fare as well with the Khaos foliar feedings as other strains. There are likely some exceptions, but just something that seems to show some correlation. However, we all should know correlation is not causation. Test it on a small portion of your plants and ramp it up until you're comfortable and your plants are begging for more.

Bloom Khaos Notes:



Olympus Up: Liquid Limestone

*10% Calcium, 60% Calcium Carbonate, Oregon Lime Score 21

Foliar Feed NO

Root Drench YES

Ingredients: Ground limestone (natural calcite) in liquid form able to pass 100% through an 80-mesh screen.

Product Details:

Olympus Up is the Nectar for the Gods pH up product, unique to the industry, created from micronized limestone suspended in water. Limestone is a rock made of the minerals calcite and aragonite, which are different crystal forms of calcium carbonate. Most calcium carbonate is composed of skeletal fragments of marine organisms falling to the bottom of an ocean and becoming a fossilized layer of rock. Calcium carbonate has been a staple for organic gardening for a long time but the ability to get instant availability for pH balancing and microbiology is new. Using a new process to get an extremely small particle size this calcium source is more available to microbiology while still being in a pure rock form.

By using liquid calcium as a pH adjusting component, you will add more calcium to your plants' cell structure, promoting cell wall integrity. Residual Olympus Up in the soil will increase aeration, promote microbial activity by offering a food source for the soil biota, and contribute to nutrient delivery. Olympus Up is essential when using Herculean Harvest. We recommend using Olympus Up with Herculean Harvest to form an amazing calcium food source for soil microbes. They may also be used together for a more efficient flush, either at the end of your growing cycle, or in new potting medium to stabilize pH and prepare for planting.

Olympus Up Information from Scott D. Ostrander ~ This is our answer to pH up. It's a micronized limestone that we have pulverized down to a 60 mesh and then we hydrolyze it so it expands it and opens it up to be a 12 pH in the bottle. It is pure rock in liquid form. We do not like the cheap versions because they are simply a potassium hydroxide that have a tendency to kill microbial life in the soil so we chose a liquid calcite limestone pH adjuster. This serves two major purposes. First, the calcium bicarbonate adjusts the pH of the solution and adds a desirable form of calcium for nutrient uptake. 2nd, the portion of Olympus that isn't fully digested is designed to enter the root zone and attach itself to the medium so that when it is being broken down by the microbial field, their waste product, which is often an organic acid, will be buffered by the undigested limestone preventing acid drift in the soil. This was made for koi ponds to remove algae, clarify water and buffer the pH of a koi pond. Frank, who designed Olympus up, had a koi pond in his backyard, made a pH up out of limestone, puts in 4 capfuls per 100 gallons. It's clear as a whistle and no more algae or seaweed.

Olympus Up Notes:



The Kraken: 0-4-0

Foliar Feed YES

Root Drench YES

Ingredients: Crab Shell, Shrimp Shell, Phosphoric Acid

Product Details: Natural biocontrol and plant elicitor. The natural biocontrol active ingredients, chitin/chitosan, are found in the shells of crustaceans. Crustacean shell consists mainly of 30–40 % protein, 30–50 % calcium carbonate, and 20–30 % chitin. Chitosan is prepared by the

alkaline deacetylation of chitin obtained from the shells of shrimp (*Pandalus borealis*).

When applied to foliage or as a soil drench, Kraken elicits natural innate defense responses within plants to resist insects, pathogens, and soil-borne diseases. Chitosan increases photosynthesis, promotes and enhances plant growth, stimulates nutrient uptake, increases germination and sprouting, and boosts plant vigor. The chitin and chitosan derivatives in Kraken act as plant elicitor which stimulates the production of mycorrhizal and other fungi in soils, stimulates the plant immune system, and assists in stress recovery. Applications of chitosan can reduce environmental stress due to drought and soil deficiencies, strengthen seed vitality, improve stand quality and increase yields.

Kraken Information from Scott D. Ostrander ~ “The Kraken is a digested crab and shrimp shell with added cysteines that aid in building strong cells and healthy plants. We made this product for a Norcal farmer group that wanted to see what we could produce in a chitin rich food. The chitin from the shells acts like a silicate and promote thick and strong cell walls. Our Southern Oregon farmers were buying this by the drum last year to help their plants survive the high wind storms. They were foliar feeding and watering this in and it builds cinder block cells where they weren’t snapping, they weren’t breaking. The added cysteine proteins derived from egg whites adds a pretty impressive little punch. It was fully experimental and we were getting feedback daily with dilution rates, plant responses and how they affect the flowers. On some varieties, they are showing some pretty crazy calyx production. So, like everything we do, you tell us how to use it, along with when to use it and we will put it into the feeding schedule. Kraken will end up being higher up on the list. I would dare to say before Aphrodite’s Extraction, and after Olympus up. It is actually crab and shrimp shell. No meal, no meat no nitrogen. Through the digestion process we are breaking down the shell into available forms of chitin and phosphorous. The Kraken is also great as a fungal food.”

Kraken and Plant Training Tip: “I should let you know that you don’t want to foliar feed Kraken if you are doing any form of plant training, like screening, super cropping etc. Once the plant starts incorporating the chitin into the cells the chitin hardens off the stems and makes them very rigid. This is great for flower support, but bad if you are trying to bend the branches and shape them. They will have a tendency to crack and break once the plant is fed the kraken.” ~ Scott D. Ostrander

Kraken alternating days with BK Tip: “Using the Kraken and Bloom Khaos together (alternating days) as a foliar will promote a synthesis in the plant that will help promote more natural oils and resin. Because we are using just the shells, we have found that the chitin in the shells when reacted with the active ingredient in Khaos, is synthesizing plant oils. Pretty damn cool what this stuff is capable of. For the Kraken 1-2 tsp in Veg, and up to 1 TBL in Bloom. I recommend cutting it out after week 6 [on an 8-week strain] is complete.” ~ Scott D. Ostrander

Kraken feedback: “I just wanted to share this feedback from a grower that gives us very helpful notes on what he says that they see when applying the Kraken...”

"Hey Scott I wanted to follow up with you on our progress thus far with the crab/shrimp meal so far we have noticed the following benefits. Increased resistance to environmental stress but more importantly a dramatic increase in pest resistance this accompanied by a solid organic preventative will give any bug a run for its money. We had a garden with pretty bad mites we saw tremendous headway against them while doing consistent sprays in combination with 10ml per gal crab/shrimp (The Kraken) added to the root feed we have almost completely rid the garden of bugs after 7 days of treatment. We have also seen it valuable to plants in stressful situations such as transplant adding this to our Transplant feed or young plant feed at 2.5 - 5ml per gal depending on size and level of stress we have seen expedited bounce back, increased health, and vigor. In addition to those we have seen the benefit of additional calcium throughout veg even in our very large veg plants we have not needed to exceed 15ml of Herculean (so we can save for flower) when properly supplemented. We have also seen an increase in bud sites, stronger growth, as well as darker green foliage throughout. We have even seen some damaged leaf tissue begin to regenerate. We will be in flower shortly so I will be able to give you our observations on the stage soon I'm interested to see the benefits from transition all the way to ripening and will keep you updated throughout I can say we love this product and will definitely be keeping this in our regimen the variety of benefits seems to increase every time we use it we appreciate the opportunity to test these products it's a blast to play with some new toys."

This type of feedback is extremely helpful in developing our products. Without it, we don't really know what it's doing in your garden. If you have feedback always feel free to share. It only helps us get better at what we do.” ~ Scott D. Ostrander

Kraken Notes:

****NOTE: ****

Below are the remaining, non-essential additive enhancers and what they are designed to do.

“As far as the other products below, not essential, but important for many growers.” – Scott D. Ostrander



Aphrodite's Extraction: 0-1-0

Foliar Feed YES
 Root Drench YES

Ingredients: Dextrose, Sucrose and Glucose for microbial food. Derived from Mono-potassium phosphate

Product Details:

Made by extracting oligosaccharides from bovine milk fat. Oregon's Only then digests it, resulting in mono and poly saccharides and ultimately those saccharides are then converted into sucrose and dextrose. Literally "Liquid Fall" in a bottle. You have a short time at the end of your plants life cycle to sweeten your fruits and make them the most desirable. Aphrodite's Extraction provides a rich blend of a proprietary blend of sucrose, fructose, chelated nutrients, vitamins, and organic acids to promote a thriving microbial population and strong, healthy plant growth. This blend provides organic acids necessary for enzymatic activity, and a complete balance of vitamins A, C, D, E, B1, B6 and B12, which are essential to plants' biological growth processes. In addition to calcium, microbes need carbon in order to manufacture complex proteins for normal growth and reproduction: low carbon equals low microbial activity. Sucrose is one of the most available forms of carbon for a plant. When sucrose and fructose are blended with proteins, they become a microbial feast essential to plants' microbiological processes. The organic nutrients in Aphrodite's Extraction are naturally chelated for increased availability to the plant promoting photosynthesis, structured soils, and increases in disease resistance and yields.

Features:

- Experience dramatic flavor improvements when applying it in the last weeks of the plants life cycle.
- Use as a microbial food source instead of molasses to protect your microbiology when you aren't brewing. (when brewing, always use molasses)
- Allows the plant to process more sugars to improve its ability to procreate.
- Provides organic acids necessary for enzymatic activity.
- Complete balance of vitamins A, C, D, E, B1, B6 and B12.
- Increases in disease resistance and yields.

Aphrodite's Information from Scott D. Ostrander ~ Naturally, in fall, crops have stored all the sugar that the chlorophyll has created during its season, and translocate them into the fruit to sweeten them up and make them more desirable. In the indoor gardening scene, we rarely get to the fall cycle in the plants life. We run them through and when they are done, they haven't started to turn yellow and they haven't moved any of that sugar that the plants spent all that time and energy creating. If you are that guy, we've made you photosynthetic sugar in a bottle. It's 100%

translocation. It will go through the roots to the tip of the plant. Your plant will direct Aphrodite's Extraction wherever it needs to go. It helps secrete out the resins and the oils and the intensity of the flavor. It also helps to curb any of that chlorophyll flavor that has stuck around if you're a synthetic grower using nitrates. Aphrodite's is cool but doesn't need to be used all the way through. It won't hurt to use it all the way but if you're simply trying to enhance the final product, then applying this in the last weeks of feed and then the last week of flushing, you will promote richer stronger flavors and enhanced aromas. This product is derived from calcium's simplest sugar, Dextrose and sucrose. It is in such an available form; the plant can absorb it and relocate it directly to the site it as needed. This carbon compound is the same as the sugars produced from the breakdown of the photosynthetic retain. We like to call it liquid Fall. It sweetens up the fruit. I use it as a microbial tea compost starter. Use it as a food source instead of molasses. NFTG started doing biological tests, studying the differences between the digested carbons of Aphrodite's Extraction and the carbon in Molasses using a microscope. They found that the carbon from molasses is huge. Molasses is a super complex long chain of sugars into a microscopic organism. In other words, it's a lead blanket. So while you're feeding molasses to the top of your plants, and you're wondering why you have to keep re-inoculating your mycorrhizae that you spent \$300 a pound on, it's because you're choking them with a carbon chain that they can't possibly break down. Aphrodite's Extraction is a predigested form of the same sugar; it's just predigested into smaller bites. It works well to speed up composting too. Watering your compost pile with the Aphrodite's will offer an immediate food source which can energize the microbial field and encourage them to eat more, quicker. It's like throwing gas onto a fire. Things are going along just fine, but spray some Aphrodite's onto the compost pile and everything goes ape shit for a minute and then calms back down.

Aphrodite's Extraction Flavor Tip:

Customers who use Aphrodite's Extraction have experienced dramatic flavor improvements when applying it in the last weeks of the plant's life cycle. The addition of sugar, and calcium from complimentary Nectar products, allows the plant to process more sugars to improve its ability to procreate. Try adding Aphrodite's Extraction at the end of a compost tea brew as a food source. The blend of proteins, organic acids and sugar from carbon make an excellent food source for a microbial rich tea.

Aphrodite's Extraction Jar Appeal Tip:

Great for Jar appeal. Some growers are reporting success with Aphrodite's when starting this product early. When you start this product during flip week (week 1 of flower), they have reported faster oil production. What you may notice is, during the 2nd week of bloom, your leaves are already crystal covered, even though they still don't have hairs on them.

Aphrodite's Extraction Foliar Tip:

*The only calcium product in the Nectar for the Gods lineup that would be foliar feed ready. Not necessarily designed to be foliar fed, so use sparingly.

What do carbs/sugars do for plants? We know that the microbial life feed off the carbohydrates, but what does it do for the plant?

"For the cellular level, It's the energy, it's the life force, it's what the plant has to create through chlorophyll to create the energy to grow and become healthy and strong so if you're not producing the right type of sugar through the vegetation and through the foliage, you have to have some form of sugar, it has to be the right type of sugar and have the sugar in the correct form, whether it is dextrose or sucrose. That helps the translocation of nutrients and the availability of nutrients through energy inside the plant. You're basically feeding the biological activity but you're not feeding the plant when you use molasses. You're not feeding the plant at all, it can't digest it,

because it's too big. You are literally waiting for the microbes to break that down, so if you do multiple dilutions of that, you're just choking out your microbial field. You can foliar feed AE, and the microbes will feed off of the sucrose and dextrose like it's crack. Using molasses will kill the mycorrhizae that I had colonized the whole time." ~ Scott D. Ostrander

Are you saying I shouldn't ever use molasses, even in my Teas?

"So I just want to be clear on my Monster Garden video about molasses. I still use and recommend molasses in my teas for feeding the microbes in the water and in the tea solution. The reason for this is because molasses is FAR cheaper than Aphrodite's, FAR, FAR, FAR cheaper, and the long chain carbon that molasses has is beneficial in teas because it offers a bigger meal for the microbes that lasts much longer in the solution. Using molasses in the teas to feed the microbes can and will buy you 24-48 hours of microbial feeding. We do not promote the use of molasses as a soil drench because of the size of the carbon chain. We have seen it suffocate the mycorrhizal field rendering them useless or hindered in nutrient absorption. Aphrodite's Carbon is a digested oligosaccharide that is made up of many mono and polysaccharides that are derived from milk fats. These saccharides have the same properties as the saccharides in the plant produced from chlorophyll to sweeten up fruit, giving it a higher brix content. Now the downfall of using it in a tea is that because it is so extremely digested already, it makes for one fast meal for the microbes in the tea machine which in turn can run out, rendering the microbes hungry and food-less. Once the microbes run out of food to consume, they turn on each other and eat the population down. So you can still use the Aphrodite's in the teas, you just have to feed them considerably more often which means you are buying more, which really only benefits us. So please feel free to save your money and use molasses in the teas and Aphrodite's to feed the soil." ~ Scott D. Ostrander

Aphrodite's Notes:



Mega Morpheus: 0-2-0

Foliar Feed YES

Root Drench YES

Ingredients: Worm Castings, seabird guano, humic acid, and Kelp Extract (derived from *Ascophyllum nodosum* (Microbial Food))

Product Details:

Mega Morpheus is a fully digested source of readily available natural phosphate, and it's the only guano tea on the market today that is free of grit and sand. Our unique process completely filters that out, offering a consistency suitable for soil, soilless, and hydroponic growing mediums. The nutrients in Mega Morpheus are made totally available through digestion and chelation, increasing not just nutrient delivery, but also uptake. When using Mega Morpheus, you can expect an increase in photosynthesis, vigor and health, as well as flower size and flavor.

Mega Morpheus is the best available guano product on the market from an ecologically responsible perspective as well as a plant usability standpoint, since it comes from seabird guano and not bat guano. Seabird guano is greatly preferable to bat guano both from the ecological and horticultural perspectives, and here's why: (a) Bat Guanos are typically harvested using destructive techniques that cause permanent damage to the bats' colonies and thus permanent damage to a vital part of the ecosystem. Very few guanos are harvested humanely. (b) The bat guano has a much higher salt content and less of an inherent ability to release those molecular bonds, whereas seabird guano has a lot less salt with better biodegradability than the bat guano. NFTG recommends when that you purchase guano tea, use the seabird guano for the above reasons.

Features:

- Finely filtered
- Ultra-digested
- Unique in the industry
- Made with certified organic worm castings
- Humanely harvested ingredients

Mega Morpheus Information from Scott D. Ostrander ~ This is guano tea. It is a digested Seabird guano with amino acids and organically certified worm castings. We chelate the humic acid off of castings from veggie fed worms. It is highly filtered, highly digested seabird guano and worm casting tea with a high load of phosphate. It's super clean and filtered and totally available, but not necessary to grow beautiful plants.

Why doesn't NFTG use Bat Guano?

“The beauty of bat caves is; you got your bats and then you’ve got this layer of shit, but right in between the bats and this layer of shit are a whole field of three-high, wall-to-wall cockroaches. So every time a bat shits on a cockroach, the cockroach eats that shit and then shits out cockroach shit, which you make bat guano tea out of. So essentially, it’s cockroach tea. The problem is, every time they extract an entire cave of guano, 9 out of 10 of these manufacturers don’t care how they get it, how it’s done, or how it’s manufactured or processed. “Give me the damn bat guano!” So they bash out the side of a cave walls, extracting all of the guano using front loaders, leaving all of those bats to never come home again, and then they die because they don’t have homes. Bats don’t re-colonize with other bats. If your products don’t say "bat conservancy" on their labels, if they aren’t

paying a huge amount of money to protect the bat conservancy, they are part of the problem in this world. So in Mexico, right now, are just a bunch of big hillsides with smashed in side walls where they extract as much of the guano as they can, and then they move on to the next hillside. Essentially, Seabird guano is sustainable and bat guano contains too much salt.” ~ Scott D. Ostrander

For more on Bat Conservation, go to www.batcon.org

Mega Morpheus Notes:



Persephone's Palate – Calcium Syrup

*1% Calcium

Foliar Feed NO

Root Drench YES

Ingredients: Calcium Sulfonate derived from Tree Sap

Product Details:

Calcium Syrup is now known as **Persephone's Palate**. It's a calcium lignin sulfonate (tree sap) from the hardwood tree industry. It's a by-product of pulp and paper. Persephone is simply a microbial food carbon that does not feed the plant so much as it's feeding the microbes in the soil. It's a much better replacement for using molasses as a soil drench because it won't choke out your beneficial fungus. It's a calcium based carbohydrate so it helps with the calcium load with the plant and support with sugars too. Not to mention, more sugar in the root zone means more microbial life resulting in more nutrients available. Ultimately, plants produce better flavors from increased microbial activity, with the added benefits of sulfur which equates to a better harvest. Until NFTG gets the labels registered in your state, it can't be sold in stores outside the state of Oregon. Until their national release, you can contact Oregon's Constant Gardener to obtain the product. <http://www.oregonconstantgardener.com>

*****Persephone Palate can be used at any time except flush.***

Persephone Information from Scott D. Ostrander ~ For clarity, on what the thoughts are behind this madness, Persephone Palate, is our answer to the molasses craze that people feel the need to pour all over their mycorrhizae and microbial colonies. Persephone Palate is derived from a byproduct of the mill industry and is simply a complex carbon, half the size of a molasses carbon and the calcium lignin which it's made from will feed the microbes in the soil and keep them breeding. The benefit is that because of the smaller carbon structure, you run less risk of suffocating the microbial field and the mycorrhizae. The Syrup is easier to digest by your microbes than molasses. It contains trace levels of sulfur that promote terpene profiles and oil production.

Persephone's Root Drenching Tip: "Persephone Palate is a great mycorrhizae and microbial food for the soil. I feel molasses is better for feeding microbes in the tea and the Persephone Palate feeds the microbes in the soil. Smaller carbon chains are easier on the soil tilth. I personally still use molasses in my teas only. Molasses makes a good tea food as it is free roaming in water, has a longer feed life span than the Persephone Palate and by the time most people use their teas, the carbon chains on the molasses have been digested and broken down. In addition, Molasses contains the micronutrient magnesium." ~ Scott D. Ostrander

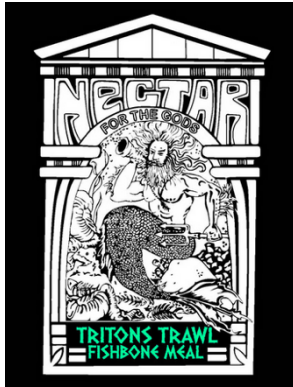
Persephone's Sulfate Tip: "What we've found is that it's a calcium source, but more importantly we found that the sulfate in there is enhancing the terpenes in the plant for the final product. We have a grower pumping Persephone in Colorado and he sends his product off to the labs and he reported back that he was seeing, minimally, 25% increase in all of his terpene levels. He indicated that the only thing he had changed was the addition of this product. So we began researching and discovered that the sulfate in this product is enhancing his final product." ~ Scott D. Ostrander

What's the best use for this product?

This product is great as a food source for microbes from Veg to Flower. Add at the end of an aerated tea for an extra food source, or as part of your microbe bump teas (non-brewed recipe in the Tea section of this bible). Can also be used as part of your regular feedings in a root drench. Most

growers are reporting a noticeable difference when they begin to increase Persephone Palate around the end of week 3 through the end of week 6 and then switch over from Persephone to Aphrodite's Extraction. Aphrodite's contains the dextrose and sucrose and it's immediately available, whereas the Persephone's still needs to be broken down by the microbes.

Persephone Notes:



Triton's Trawl: 0.5-4-0

Foliar Feed NO
 Root Drench YES

Ingredients: Fish bone meal, BioAg Fulvic Acid

Product Details:

Originally formulated as an alternative for Herculean Harvest, Triton's Trawl is for those gardeners who want the benefit of a liquid bonemeal but do not wish to utilize a product derived from farmed livestock. The cartilage that makes up fishbone has more of an amino acid base that triggers the plants response to generate color and aromas in a different way than other animal proteins. Oregon's Only Organics found that this difference is due to the fact that there exists an entirely different chain of amino acids in fish protein. Ultimately this product has become one the most unique and potent products in the Nectar line. Rich in calcium, Triton's Trawl delivers flavor, aroma and color to the finished product. It can be used alone or in tandem with Herculean Harvest to achieve the highest yields combined with superior taste and aroma.

When in the test trials of this product gardeners saw amazing enhanced colors and aromas. After they noticed these favorable results from the fish protein they began to incorporate the Triton's Trawl with the Herculean Harvest during feedings and saw even bigger fruit size along with new aesthetics that put the fruit on another level.

The residual fishbone in the soil becomes a great food source for the microbial field for an extended period of time making the microbes rich in nutrient consumption as well as delivery to the plants.

Features:

- Made from only fish proteins.
- Digested and hydrolyzed whole fish.
- Brings out the aromas and flavors of fruits.
- Works with Herculean Harvest to get better yield.

Triton's Information from Scott D. Ostrander ~ Liquid Fishbone Meal. Unique product in the industry. A digested cartilage form of calcium phosphate. It doesn't have the same bone structure or rock structure as Herculean Harvest has. Herculean Harvest will build your fruit with an actual rock substance. This one, being a cartilage is going to have more of an amino acid base. By itself, it has a small flower that has a ton of everything else. But using Herculean Harvest at a 2:1 ratio to Triton's Trawl gives you the best of both worlds. Again, not necessary, but what you will find from this product is that the unique, seagoing amino acid chain that fish cartilage has, creates and enhances the plants appearance and aromas. I would recommend not using it for the first couple of rounds and then trying it for the last couple of weeks on the third round so you can see the difference.

Triton's Trawl Limiting Nitrogen Tip: "Limiting Nitrogen, for Nitrogen sensitive varieties: "Some growers are having success by removing the amino acids that come from mammal proteins (in Athena's) and feather proteins (in Medusa's) and replacing them with amino acids from fish bone (in Triton's Trawl) and crab and shrimp shell (in the Kraken). This way, there are still plenty of amino acids to build proteins, and you have a lot less Nitrogen for the plants to access during the flowering stage, resulting in a nice fade at the end. Here's a tip: Instead of upping Athena's from 1 to 2 TBL/gal in mid-flower as it shows on the schedule, up Triton's Trawl from 1 to 2 TBL/gal.

There's an amino acid that's unique to ocean creatures, when it's triggered in the plant, it's changing the aesthetics. Triton's will maintain availability of amino acids and calcium with the addition of extra fish cartilage, along with a higher phosphate load than you'd get from a land mammal amino." ~ Scott D. Ostrander

Triton's Notes:



Poseidonzime: 0-0-0.5

Foliar Feed YES

Root Drench YES

Ingredients: Kelp extract (*Ascophyllum nodosum*)

Product Details:

Poseidonzime is a liquefied seaweed product digested through an enzymatic process that allows for maximum availability to plant tissues and microbiology. Rich in organic acids and over 60 naturally occurring major and minor nutrients and amino acids. Kelp is a good natural source of potassium and cytokinins, which promote cell division in root and plant growth, and affect apical dominance, axillary bud growth, and leaf senescence (biological aging). Designed to be a natural chelator, Poseidonzime helps release previously unavailable nutrients and other substances in the soil for plants to use. Known as one of the best natural plant growth promoters. Some of the growth hormones in Poseidonzime include cytokinins to aid in the division of cells; auxins to promote root and cellular development; indoles to aid in root and bud development; and gibberellins to promote stem and seed development. Poseidonzime reduces plant stress while increasing flower clusters and overall vigor in the plants' reproduction. Poseidonzime also inhibits growth in populations of mites, aphids, white flies and root-knot nematodes by increasing your plants natural ability to fight pests and disease.

Features:

- Contains organic amino acids.
- North Atlantic seaweed based nutrient.
- Organically feeds leafs and stems from the outside.

Poseidonzime Information from Scott D. Ostrander ~ Now spelled with an I (zime), it used to be spelled with a y (zyne), but that's a no-no in California and Oregon. Liquid Sea kelp. It's a cold water North Atlantic kelp, enzymatically digested, very similar to any other liquid seaweed in the industry. Simply a potassium rich liquid seaweed. Some soils strip potassium or tie it up and this would help correct that issue. Especially beneficial for seedlings and transplants and as a foliar feed. There's nothing else really unique about it other than the amino acids that we add to it. We source this from Acadian, the reason why we picked this company is their harvesting methods and sustainable resource management. Most companies dredge and destroy entire sea beds by ripping the plants from the rock removing all cover in a wide track. Acadian enforces a hand harvesting method for their fisher-harvesters using a company approved cutter rake for controlled cutting heights. For this reason, our product may be priced a little higher than competitors, because we don't source a cheaper kelp and we support the sustainability of North Atlantic Sea Kelp.

Poseidonzime Foliar Tip: Foliar spraying is the most effective way of applying kelp, since leaves are up to 8 times more efficient in taking in of nutrients than through the root system. Foliar spray as much as 3 times a week during the vegetative phase to give your plants the nutrients they desire through the leaves and stems as well as through the medium. Use as little as once every 2 weeks during the vegetative phase to notice increased health of your organic plants.

Sneek peek - North Africa Black Sea Kelp:

"We're actively working with a North Africa Black Sea Kelp and it's showing some incredible promises for a foliar seaweed because the auxins in that are showing to trigger more flower response whereas Poseidonzime is proving to show a better vegetation response. If the product

makes it to stores, you'll get to see it, we just have to finish our testing and that will probably take another year." ~ Scott D. Ostrander

Poseidonzime Notes:



Pegasus Potion: 1-2-0

Foliar Feed YES

Root Drench YES

Ingredients: gamma (proprietary ingredient used in Bloom Khaos), Feather Meal and Phosphoric Acid

Product Details:

WOW! This stinks, but for good reason. Pegasus Potion is a new concept of nitrogen delivery. This is the first pure-nitrogen product on the market that is not a salt based mineral or urea based nitrogen. It is a nitrate free, totally available protein source of nitrogen. Extraction through enzyme hydrolysis makes Pegasus Potion more biochemically viable, preserving amino acid integrity by breaking proteins at specific sites. Nitrogen proteins are extracted from feathers and digest into their simplest, most available forms. Pegasus Potion can be used as an extremely effective foliar spray as well as a root drench to promote greening and vegetative growth. If you feel you need more nitrogen and don't want the burn or the stretch, then Pegasus will show you how it's done.

Pegasus Information from Scott D. Ostrander ~ A little warning to all who are thinking about using Pegasus Potion: IT SMELLS REALLY BAD. We have done everything in our power to quell the stench, and nothing we have tried will mask the smell. Sorry. This is a pure nitrogen derived from digested feather meal. It has 2% protein based nitrogen so it is impossible to burn with it and the plants won't elongate like a nitrate will do. Be fair warned however, that this product is digested down to its simplest protein, and nothing wants to bond with it. Even our mint oil will not touch the smell of liquid feathers. Smells awful, but highly effective.

Pegasus Potion on the feed chart is 'as needed' means that we, as a company, put all of our focus on the availability of all the plant nutrition in the form of calcium and calcium bonds. We are confident that most plants, with the exception of corn and maybe tomatoes, can access all the nitrogen they need from the soil, from Medusa's Magic and from the atmosphere. But for some farmers that doesn't seem or feel like it is enough and they wanted more. So we produced a digested protein Nitrogen source from feathers so that the growers had a tool to get their plants greened up without pumping them full of nitrates. The 'as needed' on the feed chart is, if you feel like you need more nitrogen, then here is our nitrogen only product to enhance that. Many, many, many gardeners use it as part of their arsenal.

I absolutely love it (minus the smell) and I always have a small rancid bottle of it in my truck so if I ever get into a road rage incident, I use it as method of retaliation. Simply follow the person home or work to see where they park their car. Then come back later and pour a capful down into their air intake near the windshield so that they can enjoy the smell of how they drive. LOL. Sometimes I am not that nice. Usually I am. I can say that mixing the Pegasus and The Kraken together not only makes an eight-legged flying horse that smells like dead fish that just shit itself before death, but one hell of an amazing foliar feed in the veg cycle. Hell of one for sure.

Pegasus Foliar Feeding Tip: "Highly effective and works amazingly well in foliar applications for an 'N' boost. You can feed at 2 tsp per gallon and foliar feed up to 5 times a week. You can't burn with this. When you're foliar feeding with it, you'll notice greening within a couple of hours, certainly by the next day you'll notice a change in your canopy because the plant can assimilate it immediately." ~ Scott D. Ostrander

Pegasus and Kraken Foliar Tip: “Mixing Pegasus Potion and The Kraken together not only makes an eight-legged flying horse that smells like dead fish that just shit itself before death, but one hell of an amazing foliar feed in the veg cycle. Hell of one for sure.” ~ Scott D. Ostrander

Pegasus Root Drenching Tip: “Watering it in, it can be added at 1 tsp per gallon early veg and 2 tsp per gallon for the mid to late veg, and then up to 1 TBLS per gallon, if you are trying to push their growth in the late stages of veg, early flowering. Many growers report back that they keep 1 tsp per gallon in the bloom feedings for enhanced flower size.” ~ Scott D. Ostrander

Pegasus Notes:



Hygeia Hydration: Yucca Extract

Foliar Feed YES

Root Drench YES

Ingredients: Yucca extract (saponin extracted from Yucca schidigera)

Product Details: Hygeia's Hydration is our blending tool for the Nectar for the Gods line of nutrients. Rich in saponin, Yucca acts as a wetting agent to aid in root penetration for maximum nutrient uptake. The organic acids in

Yucca contribute to chelation of other nutrients, making them more available to microbes and to your plants. Hygeia's Hydration can be used for those pesky soils that dry out and will not rehydrate with regular watering. You can also use Hygeia's Hydration as a wetting agent for foliar feeding nutrients, pest control, and fungal sprays. Yucca extract has inherent insecticidal properties in addition to being a great surfactant spreader. You get the anti-mold and anti-fungal benefits from the saponin because it enhances quicker drying of the leaves, making them less susceptible for infestations.

Features:

- Encourages microbiology by creating a saponin coating over organic nutrients.
- Makes organic soil elements more available to microbes.
- Assists in root penetration, nutrient absorption and contributes to chelation of nutrients.
- Contributes to chelation of nutrients.
- Saponin extracted from Yucca schidigera.
- Safe, organic product. No risk of (leaf) burn
- Non-toxic for plants or animals

Hygeia Information from Scott D. Ostrander ~ In drier climates, drier/hotter rooms; places where the environment has a tendency to dry up the medium quicker than normal, we've had a lot of requests for a wetting agent that is natural that can be placed into the medium so that the nutrients won't just rush right through the medium and into the saucer. We came up with a liquid Yucca. It's a wetting agent, the nice thing about Yucca is it's a saponin, very similar to like a soap. It's a very good foliar wetting agent for bug sprays and nutrients. If you use a lot of coco, it's a good idea to use this in soil drench. If you're using a peat moss base, you can get by with a little less. However, both coco fiber and peat, when moist, don't want to let go of water, but when dry, they will not absorb water: they are hydrophobic. If you ever let your medium go to a dry state, it's really difficult to get it to take that water back into the medium. One way to overcome the problem of dry coco and peat moss's repulsion of water is by adding Hygeia to your pots. Wetting agents, or surfactants, are molecules with one end that is attracted to water and the other that's attracted to nonpolar molecules like those in peat moss. They act like glue that holds two surfaces together that would otherwise repel each other. The wetting agent only needs to attract and hold a little water in the peat moss. After that, the process of hydrating the peat carries on by itself. Hygeia Hydration is our wetting agent. Hygeia will help speed up the process so that you're not pouring valuable nutrients down the side walls of your container and out of your garden. What we found is that the mycorrhizae fungi really, really like the saponin because they have a tendency to create an 'm&m type coating' around each one of the elements in the other bottles of NFTG. It sticks to the nutrients so that your mycorrhizae field can tap into these little held food nutrient bubbles, absorb those in, and wait for the signals from your plants to translocate or exchange waste for waste. Mycorrhizae fields are just one giant digester and they never force feed your plant, they deliver what the plant calls for. That's what you call the perfect symbiotic relationship. Yucca root has high levels of saponin and Native

Americans used it for years to make soap and shampoo. Saponins-group of chemicals with detergent-like properties that plants produce to help them resist microbial pathogen such as fungi and certain bacteria and viruses.

When my pot gets extremely dry, is it ok to rehydrate from the bottom of the pot?

“I never [ever, ever] recommend watering in the tray to rehydrate up. You’re just pushing salts up further and deeper into the medium. Which will, a couple of weeks from now, be harder to get back out. Always rehydrate from the top.” ~ Scott D. Ostrander

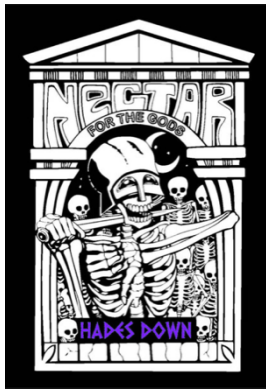
Hygeia Tip (Do Not Aerate):

“Because of the high saponin levels, this product behaves like a soap when agitated and should not be used for heavily aerated reservoirs. It creates bubbles when agitated, so you don’t want to put Hygeia [or any Yucca] in your compost teas with an air stone because you will have a giant frothy head.” ~ Scott D. Ostrander

Hygeia & Bloom Khaos ‘Do Not Mix’ tip:

“One thing I can say is do NOT mix this with Bloom Khaos when you foliar feed. We don’t want the Bloom Khaos to stick, we want it to penetrate and absorb. It’s a reaction we’re looking for, not longevity on the leaf surface. When BK hits the plant, the stomata takes in what it wants, it reacts, and sucks in more calcium. If you wrap it with a nice little package of bubbles, the leaves are not accessing it, you’re not going to see the response. Bloom Khaos all by itself, all of the time.” ~ Scott D. Ostrander

Hygeia Notes:



Hades Down: 0-1-0

Ingredients: Phosphoric acid, Citric Acid and Fulvic Acid

Product Details:

Hades Down is a pH adjusting liquid used to lower the pH of your nutrient solution. Fulvic acids in Hades Down chelate elements in the nutrient solution into stable, slow releasing forms which are easier for plants to absorb. Fulvics are produced naturally by plant roots and are important for root cell division. Providing readily absorbed natural molecules, Hades Down has the ability to stimulate microorganisms and plant growth by supplying a steady slow release of auxins, amino acids, and organic phosphates. This stimulation will directly affect increases in CO₂ production, photosynthesis, beneficial microbes, and plant vigor and health. When mixing fertilizers in a reservoir, Hades Down will help prevent nutrient solution fall out.

Note: The ideal pH for nutrient solutions for Nectar for the Gods is 6.1 – 6.4 in Veg and 6.3 – 6.8 in Flower. Most gardeners don't have a reason to use Hades Down. But it is here for those who have very high pH tap water or for those of you who may need it to pH your ready-made teas or on your water only days.

Features:

- Unique product to the horticultural industry.
- Chelates elements into slow releasing forms.
- Prevent nutrient solution fall out.
- Safe and natural product.

Hades Down Information from Scott D. Ostrander ~ We don't want to destroy our microbes by adjusting our pH, so we try to reduce our phosphoric acid inputs and increase the other types of organic acids. Hades feeds the microbial field without destroying it. If your water source has a ton of calcium bicarbonate in it, and you pH adjust to it, you'll create rock phosphate. So if you can hit it and water immediately, that reaction is sending out gamma radiation in the root zone and plants will absorb that and you'll see amazing growth. It's kind of cool if all you're doing is plain watering because it will react with calcium and create rock phosphate.

*****Works well to drop the pH of the water in an aeroponics cloner.***

Question: I found, what appears to be a growth in the top of my bottle of Hades Down. Is it still ok to use?

Answer: "Yes, absolutely, I think we are still working on proteins from the combination of the fulvic and citric acids here. The Fulvic acid is coming from a vegetative source of decomposed materials, so depending on where they extract that material there is the likelihood that some of that plant material is becoming activated and growing what appears to be a fungus. The good news is that as a pH down, it does not destroy life like most of the phosphoric acid concentrates will. As long as the pH can be dropped efficiently then the product is still good. If those globs made it into the soil at the time of watering, then it would become microbial food and be gone shortly after feeding the plants." ~ Scott D Ostrander

Hades Notes:

One Shot Granular- 3-10-2

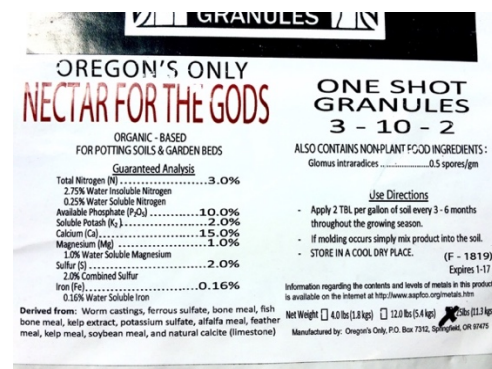
*15% Ca, 1% Mg, 2% Sulfur, 0.16% Iron

Ingredients: Worm castings, ferrous sulfate, bone meal, fish bone meal, kelp extract, potassium sulfate, alfalfa meal, feather meal, kelp meal, rock dust, soybean meal, and natural calcite (limestone), beneficial bacteria and fungi, molasses-wrapped to granule.

Also contains mycorrhizae:

Glomus intraradices.....0.5 spores/gram

One Shot Information from Scott D. Ostrander ~ “One Shot is a product that we produce here in Oregon. It is time release organic PRILLED fertilizer designed to slowly release over a 6 to 8-month period. I use it in all outdoor plants and all of my raised beds. It starts off with all the meals that we use, we micronize them. We start with the bone meal powder and mix it with molasses, tumble that in a cement mixer until the bone meal turns into little balls from adhering to the molasses. Then we layer each layer by adding a little more molasses to adhere each layer on to the last. The last two layers are worm casting and Mycorrhizae so that when the product gets wet, the fungi and bacteria wake up and begin to eat the prill.”



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Ready Availability & Slow Release info from Oregon's Constant Gardener:

Apply 2 TBL per gallon of soil every 3-6 months throughout the growing season.

Sufficient Feed: 1 cup per 5 gallons of soil

Aggressive Feed: 2 cups per 5 gallons of soil & top dress every 2-4 weeks

Quantity per bag	Sufficient Feed @ 1 cup per 5 gal	Aggressive Feed @ 2 cups per 5 gal
4 lb - 9 cups	45 gallons of soil	22 gallons of soil
12 lb - 28 cups	140 gallons of soil	70 gallons of soil
25 lb - 56 cups	280 gallons of soil	140 gallons of soil
50 lb - 112 cups	560 gallons of soil	280 gallons of soil

*When top dressing, massage it into the soil.

*When Remediating last year's soil: 12 lb. bag per yard of soil (200 gallons of soil) (7-10 lbs. may also be adequate depending on your garden)

One Shot Tips from Scott D. Ostrander:

You will want to scratch it in around each planting in already established gardens. For new transplants/plantings, put some directly into the hole where the plant is going. Both ways work, but you want it close to the root zone when it initiates so that the mycorrhizae on the product will adhere to the plants root system.

One shot in vegetable gardens can be applied in a couple of ways.

Option 1: You can mix it in to the top layers of the medium at the rate of 2 TBL per 5 gallons at a 1 to 2 inch depth in the soil. With this rate, you would want to supplement minimally (1x per week) with the Basic Line of NFTG.

Option 2: Lay the fertilizers on both side of a row of plantings. This is called banding. For instance, on a 10-foot row of carrots, I would evenly distribute in two bands. One on each side of the planting 1.5 lbs of one shot to feed that crop, or you could put some in each transplant hole and the amounts would vary per vegetable crop. For example, let's say you are growing broccoli and cabbage, they would require more nutrition than say, potatoes and lettuce. The measurement I have come up with in my garden is for 400 gallons of soil which is roughly 60 cu ft, which is 2.2 yards of soil, the magic recipe is 25 lbs per 2.2 yards for medium feeders like corn, peppers, vines etc. Half that volume or even a third for lighter eaters like carrots, herbs and root crops. Now considering that most garden variety vegetables really only have a root system that dives down about a foot into the soil, I would base my measurement by taking the length x width x depth (1 ft) and that will give you your volume in cubic feet.

You can add another 1 lb of one shot per 100 sq. feet of garden for a little bit more self-sufficient feeds. Or what I personally do is to add it into the holes where I am transplanting the starts into and depending on the plant variety, heavy feeders would get more and light feeders would get less. For instance, I use about a full cup of One shot per tomato plant scratched in around a foot or two around the plant. For peppers, I scratch in around a half cup in a 6 inch to 1-foot radius around the planting. And for seed row crops like beans, peas, carrots, radishes, etc I band the nutrients alongside of the planted row. I just plant my seeds and then in a parallel row right next to the seeds, I lay down a skinny strip of one shot in that row and cover it. As the seeds germinate the nutrients will be alongside to feed them.

The oneshot chart below was created by **Bill Burns** and is based upon Scott's recommendations of approximately 25 lbs per 60 cu ft/ 2.2 yards of soil. This is approximately 1 cup per cu ft of soil or 1 cup of one shot per 7 gallons of soil. *These are only recommendations.* You may still need to supply 1 feed per week of the Basic 4 using the one shot amounts applied below. There are very few people who have fed seed to harvest on cannabis plants using only one shot. You've been warned!

Below One Shot chart is a guideline ONLY! Not a rule.

One Shot Chart:

Garden Sizes									
Length (feet)	1	2	3	4	4	8	8	10	12
Width (feet)	1	2	6	4	8	8	10	10	12
Depth (inches)	12	12	12	12	12	12	12	12	12
sq ft garden	1	4	18	16	32	64	80	100	144
gal soil	7	30	135	120	239	479	598	748	1077
cu ft soil	1	4	18	16	32	64	80	100	144
cu yards soil	0.04	0.15	0.67	0.59	1.19	2.37	2.96	3.70	5.33
One shot (lbs)*	0.42	1.68	7.58	6.73	13.47	26.94	33.67	42.09	60.61
One shot (cups)*	1	4	17 2/3	15 3/4	31 1/2	63	78 1/2	98	141 1/2
One shot (lbs)**	0.21	0.84	3.79	3.37	6.73	13.47	16.84	21.04	30.30
One shot (cups)**	1/2	2	9	8	15 3/4	31 1/2	39 1/4	49	70 3/4
One shot (lbs)***	0.14	0.56	2.53	2.24	4.49	8.98	11.22	14.03	20.20
One shot (cups)***	1/3	1 1/3	6	5 1/4	10 1/2	21	26 1/4	32 3/4	47

One shot* heavy feeders like cannabis, asparagus, broccoli, brussels sprouts, cabbage, cantaloupe/honeydew, cauliflower, celery/celeriac, corn, kohlrabi, leeks, onions, peppers (large-fruited), spinach, tomatoes, turnips

One shot** 1/2 amount for medium eaters like Artichoke, basil, cilantro, cucumbers, eggplant, garlic, lettuce, okra, peppers (small-fruited), potatoes, pumpkin, radish, rutabaga, scallions, squash, watermelon, zucchini

One shot*** 1/3 amount for lighter eaters like Arugula, beans, beets, carrots, chicory, collard greens, endive, escarole, fava beans, herbs (most kinds), kale, parsnip, peas, Swiss chard

One shot Notes:



Oregon's Only Soil & Soilless Mediums

Oregon's Only (NFTG) sells quite a few different mediums/amendments: (not all are available in your area, some are only available in Oregon) As of 11/21/2016, the #2, #4 and #8 soils are available nationally through Sunlight Supply. If your local shop is supplied by Sunlight Supply (most are), you can have your shop order the bags of soil. #2, #4 and #8 are heavily enriched planting mediums for gardeners. Very easy to use with little-to-no salt present at time of planting. Best when kept on the moist to dryer side to allow more nutrient uptake. Designed for your plants health without giving them a large nutrient load in the beginning stages of growth and typically requires supplemental nutrient

feeding once plants are established.

Product Details:

Oregon's Only Organics' stance on potting soils is that not all soils are created equal. Anyone with a mixer and access to organic fertilizers can make it. However, understanding what makes up a soils structure and why they are important are another task all together. We at Oregon's Only Organics have put together a product that is beneficial to plants and not your wallet. We have gone back and forth on whether or not to produce an affordable soil that we could flood the market with to gain shares in the industry. After many formulations and testing we decided that we would leave the cheap products and inferior soils to our competition. We decided integrity and a consistent soil is more important than extracting your money for profit. Our pricing reflects the amount of time and labor that we put into our mixes that we can assure you, no other company is doing. We take extra steps to remove all the sodium from our coir fiber before we mix it into a batch. We do not use any form of forest product or wood source as a filler, or base. We just use love and labor to create the finest soils. The #4 soil is probably the most popular soil. It is gentle and designed to be fed. Although we do put a fertilizer charge in the soil, and then allow it to compost for 30 plus days before it is released to the stores, it is not considered to be a hot soil.

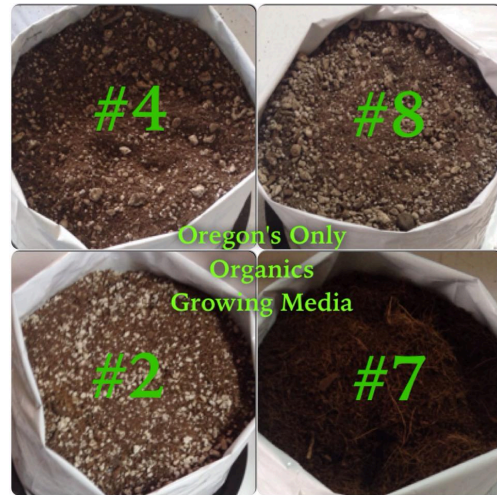
Ingredients:

- Washed Coir Fiber. Washed with Limestone Calcite and Oregon rainwater to eliminate excess salts and to buffer the medium increasing the soil CEC (Cation Exchange Capacity)
- Peat Moss
- Worm Castings (Fed Organic Canadian Certified Grain, Oatmeal for fungal Growth, excelerite mineral clay housed in the same coir fiber that we use in our potting soils) No Manure or Nitrates in the castings.
- Alaskan Humus - Rich Alaskan Top soil rich in bacteria, fungi and protozoa.
- Pumice - Acts as a perlite with a silicate charge
- Perlite
- Diatomaceous Earth
- Feather Meal
- Kelp Meal
- Excelerite clay - Excelerite naturally re-mineralizes soil and stimulates microorganism propagation. Derived from Montmorillonite clay, it contains a broad spectrum of 78 minerals and key trace elements that will not burn your plants.

- Mycorrhizae Designed for us by the Xtreme Gardening folks. The blend they make for us is called Symbios. I have never seen any other mycorrhizal inoculant colonize the way that Xtreme's does.
- Paramagnetic rock (Google [Paramagnetic vs. Diamagnetic soils](#))
- Over 2lbs of granulated bone meal per bag.

“We absolutely do not use any form of bark, Bark byproduct, bark dust, or bark compost. NO FILLERS, NO SPLINTERS.

Most soils in our industry are actually Diamagnetic. The presence of a lot of wood, bark and decaying carbon from wood product will actually push energy away from the plants vascular openings in the soil. Paramagnetic rock allows the plants frequency to resonate to the earth frequency even through insulators like cement, wood floors, non-earth like materials. Plants are energy and when removed from their Mother Earth, they lose some of that energy connection. Paramagnetic allows them to still resonate with Mother earth, even while in a container. Paramagnetic rock has absolutely no nutrition value, it's just an energy refractor.” ~ Scott D. Ostrander



https://www.dirtdoctor.com/garden/Paragmagnetism-Effects-on-Plant-Growth_vq380.htm

The chart below lists most of Oregon's Only media, along with their description and Sunlight Supply Part numbers. Call your local store and give them the part numbers below. Most shops will not charge you extra shipping. The cost should be rolled into their normal Sunlight Supply orders. Call around to the shops in your area and find out who will order smaller quantities, at the most reasonable price.

Sunlight Supply Part Numbers:

	Sunlight Supply Part Number	Description
#1		contains all the ingredients listed above, but is peat moss based instead of Alaskan Forest Humus as a base
#2	746342	soilless medium with 50% coco coir and 50% perlite/pumice
#3		Alaskan Humus
#4	746340	soil contains all the ingredients listed above and is roughly 35% perlite/pumice
#6		Organic Canadian Certified Grain fed Worm Castings
#7		coco coir and mycorrhizae
#8	746344	soil contains all the ingredients listed above and is roughly 50% perlite/pumice

Question: How many bags of Nectar soil do I need if I have 12 plants in 5 gallon pots?

Answer: To figure out how many bags of planting media you will use; each 1.5 cu. ft. bag of Oregon's Only medium will fill a 10-gallon pot or 2x 5-gallon pots. If you transplant regularly from smaller to larger size pots, it's advised to figure out what size pots you will use for final flower and purchase the number of bags needed for final pots. See chart below for more details. **all numbers are an approximation*

Final Pots	1 bag	2 bags	3 bags	4 bags	5 bags	6 bags	7 bags	8 bags	9 bags	10 bags
1 gallon	10	20	30	40	50	60	70	80	90	100
3 gallon	3.3	6.7	10	13.3	16.7	20	23.3	26.7	30	33.3
5 gallon	2	4	6	8	10	12	14	16	18	20
7 gallon	1	3	4	6	7	9	10	11	13	14
10 gallon	1	2	3	4	5	6	7	8	9	10

Question: What is the difference between #4 and #8, just the perlite/pumice content?

Answer: You will end up feeding more often and/or watering more often as the #8 blend will tend to dry up a little faster than the #4. Other than that, they have the same ingredients and same rates, just more perlite/pumice in the #8.

Question: I'm interested in more than a few bags, do you ship pallets and totes of soil?

Answer: "We do ship soil by the pallet and in both 2 and 4 cubic yard totes. 1 pallet consists of (65) 1.5 cu ft. bags and comes out to 3.61 yards. The 2 cubic yard totes are (36) 1.5 cu ft. bags. Our 4 cubic yard totes are equivalent to (72) 1.5 cu ft. bags." ~ Scott D. Ostrander

Question: When should I start feeding in #4 and #8 soil?

Answer: "I usually transplant into it and water only for a few days, then start feeding them at half strength recipe for about a week. Once I know that the plants are happy and moving forward, I then start to increase my doses of nutrients to meet the plants demands for food." ~ Scott D Ostrander
**this is true for each transplant into the next container. Fresh soil can use plain pH'd water.*

Soil Notes:



Nectar for the Gods – Paramagnetic Rock

Scott calls it 'hippie rock'

“Unfortunately for most, the NFTG paramagnetic rock will NEVER be released on a grand scale. This source of Paramagnetic material is extremely unique and is a limited source. This truly is our secret ingredient to the soils.

We have tried over a dozen different "paramagnetic" materials and nothing does what this one does. There are many materials that have paramagnetism, and I can tell you that they are not all equal. Granite has some properties, gypsum, calcite, beach sand etc. However, the shit we use, is off the charts. You have to be careful when being sold paramagnetic materials. In essence, beach sand has paramagnetic properties but it doesn't mean that it is good. Many manufacturers are trying to get on the band wagon of paramagnetic now [imagine that] and are doing so by offering materials like quartz dust, and basalt and others. If you are ever wondering the strength of your paramagnetic material, we would be happy to test your material through our paramagnetic meter that we use to test our soils. We also use our paramagnetic meter (a Callahan Meter) to test the paramagnetism of the soils in our industry. Doesn't look good. Not many paramagnetic soils out there. And funny thing is, all the soils we tested that contain bark and forest byproducts (sawdust) were actually diamagnetic.

Most soils in our industry are actually Diamagnetic. The presence of a lot of wood, bark and decaying carbon from wood product will actually push energy away from the plants vascular openings in the soil. Paramagnetic allow the plants frequency to resonate to the earth frequency through insulators like cement, wood floors, non-earth like materials etc. Plants are energy and when removed from their Mother Earth, they lose some of that energy connection. Paramagnetics allows them to still resonate with Mother earth, even while in a container. Paramagnetic rock has absolutely no nutrition value, it's just an energy refractor.” ~ Scott D. Ostrander

Growers Notes:

Troubleshooting:

**these answers were given to unique situations experienced by Nectar growers and may not apply to your situation. pH is critical for 99.9% of Nectar growers. If you have individual concerns, feel free to reach out to the fb page and pose your questions to the group.*

Q: I'm in 5th week of Veg. I just performed a slurry test and my soil pH is 5.5. My plants are not looking good. My ppm's are also below 200.

Answer: "You need to get that soil pH up into the 6's to allow the calcium to be absorbed. For the next few feedings up the nutrient feeding pH all the way up to 6.7-6.8. Do this for three or four feedings and then recheck the soil pH. It will be very important to get the soil on point before entering the flowering cycle. In flower, the deficiencies will get worse and more often." ~ Scott D. Ostrander

Q: I have 2 plants yellowing on the new growth, everything else looks beautiful. What would cause this and what would the best solution be? Seems to be an issue with iron.

Answer: "A slurry test is in order, but a quick 2 TBLS of Gaia Mania with 1 tsp of Medusa for a flush will probably correct that. Gaia and Medusa contain trace iron so the flushes should correct this." ~ Scott D. Ostrander

Q: How do you guys lower your pH in soil? My slurry is in the 8's and 7's for pH across my 7 gallons. Can I flush with 4.0-5.0 water to try and even it out?

Answer: "For your initial flush with the Herculean Harvest, just adjust the pH to 6.0. Then for the next few feedings just water in the Herculean Harvest and Aphrodite's if you have some at a 5.8-6.0. DO NOT water this until run off, water it in so the soil is fully saturated and let the organic acids work their magic. The High pH is probably from the calcium bicarbonate in your hard water and multiple flushes won't necessarily wash it out because many of those calcium forms are not soluble. So, you want the lower pH calcium solutions with Herculean and Aphrodite's to sit in the medium and neutralize the alkalinity. When you get back to feedings, I would recommend pH adjusting the water first with the Hades down, get it into the low to mid 6's then add the nutrients, then check and readjust the pH before feedings." ~ Scott D. Ostrander

Q: I just got back from a trip and my plant sitter did not do his job. Plants are looking extremely thirsty. What should I do to get them to bounce back.

Answer: Start by re-hydrating the Soil with Hygeia Hydration and water. Once after plants perked up a bit, add a Gaia Mania recovery 'flush' at 2TBL gallon. Allow the pot to dry out in the top 2" of soil, then perform a slurry and feed or flush based upon those readings.

Q: I acquired some plants that are being flipped to 12/12 soon. They are in 10 gal pots of recycled nectar #4 soil. Previous grower was not using NFTG nutrients, instead using some mixture of Cyco and other additives. I slurry tested all and came up with numbers from 260-540ppm depending on the plant. My question is, should I flush with some Herculean Harvest before starting them on a full strength pro level NFTG regiment or are those numbers decent for beginning flower slurry tests? I've seen the rule of thumb that Scott expressed about the ppm readings for slurries for this line but would like a little more input since these are not NFTG grown from day one.

Answer: “Yes at least twice, then slowly introduce the Nectar feeds at half strength for a few feedings. Over the next couple of weeks, increase the dilutions to full. Got to get them to start accepting the new food. If you plan on using Bloom Khaos, get at least a week’s worth of Herculean Harvest and Olympus Up feedings in to build up some calcium reserves.” ~ Scott D. Ostrander

Q: I can't get my girls dialed in. My slurry was 6.7 and 280 ppm. I'm feeding the whole Roman schedule with Slf-100, Photo +, Mammoth P, and extra Mag Amped here and there along with a heavier feeding of Potassium (K) to combat what looks like a K deficiency. I'm running 1400 ppm in first week of flower.

Answer: “It looks and sounds like excess K, leading to an interrupted uptake of magnesium. Hence the need for more and more Mag Amped, the levels of which were negligible. Decrease any products that are higher in Potassium and they should recover.” – **Paul Cicero #nectarassassin**

Troubleshooting Notes:

Nectar Tips:

Rooted Clone Foliar Green up:

"After your clones have rooted and are wanting nutrients. Spray them with 5ml kraken & 5ml Pegasus potion in a 32oz spray bottle and they green right up and get happy. Seems to make them nice and stiff as well as make the roots get a little thicker." - **Sean Berroth #nectarassassin**

Transplant and Transition feeding in #4 Soil:

"Here is a sweet little method for feeding after transplanting to reduce shock. When watering after transplant for the first time, simply toss in 1 TBL of Herculean Harvest and 1 TBL of Gaia Mania per gallon of water. The Herculean Harvest will lock up any excess salts and the Gaia Mania will deliver a nice soft NPK to the plants. Add some Ful Power to get the soil moving... Zeus might even be better down the road. The first couple of weeks need to be mellow feed since there is plenty food in #4 for the first few. Half doses of the basic four are more than enough for the first four weeks of veg. Double this up (2 TBL of Herculean and Gaia) for the perfect bloom transition feed to help reduce shock from the schedule change during week 1 of bloom. If I was forced to only grow with 4 bottles including pH buffer it would be Herculean Harvest, Gaia Mania, Olympus Up and Zeus Juice." – **Paul Cicero #nectarassassin**

Low pH and high ppm's in your slurry sample

"I have found with Nectar, that low pH is usually due to excess food and/or organic waste excreted from microbes in the soil. If you're finding yourself in a 6.0 or lower pH AND the plants are looking sickly, mix up 2 TBL of Herculean Harvest and 2 TBL Gaia Mania pH 7.0-7.2 or so to get that pH to rise up quickly by next feeding." – **Robert Rabaglia #nectarassassin**

"pH under 6.0 renders Calcium [mostly] unavailable. Calcium is the driver for Nectar Nutrients. No calcium uptake means no nutrient uptake. The food sits in the soil and builds up, then acids drop the pH further. Keep your pH up above 6.0 to prevent excess food build up in the soil as well as low pH drift." - **Paul Cicero #nectarassassin**

Usefulness of Hades Down:

"If you ever watch your pH after mixing and adding Olympus up you'll notice every couple of minutes the pH climbs up. What I do so that my pH stays solid and holds, is pour all of the nutrient in, add Olympus Up to your desired pH, give it 10 mins and if it's past your target pH, 9 times out of 10 it's going to be higher, this is when Hades Down comes in to save you. If I pH to 6.4 and wait 10 minutes the pH will be about 6.7-6.8.... I then add Hades down to get back to 6.4. Once Hades Down is added the pH will hold solid, then add bennies if its bennies day. Hades Down is used to prevent nutrient fall out, so your pH won't swing all over." – **Prince Jones #nectarassassin**

"I use Hades Down to pH my tap water before I pour it into the aeroponics cloner. 5.5-6.0 pH seems to work the best for me in starting root growth. The phosphorus in Hades encourages further root development as well." – **Bill Burns #nectarassassin**

Best time to cut Nitrogen loads:

“Us **#nectarassassins** tend to cut out Medusa’s Magic at the end of week four of bloom. This cuts back the nitrogen a bit and allows to give a bit more calcium. Some Kush respond negatively to nitrogen with this line. Most issues can be resolved by backing off a little on N products like Medusa and Athena’s. Bing pow.” – **Paul Cicero #nectarassassin**

“I personally don’t completely cut it out, but I do decrease the dosage. For those still learning, you definitely want to keep a healthy amount of nitrogen as part of your feed for at least the first 2 weeks of bloom while your plants transition; this will give you explosive growth. Don’t start intense phosphates until flower sites are fully formed and the plant has clearly stopped vegetative growth. Phosphates inhibit vegetative growth when used in large amounts, but dramatically increase the flower production (size, density, quality).” – **Ryan McCabe #nectarassassin**

Final ‘Ripening Flushes’ prior to Harvest:

We NectarFam reluctantly use the term "flush" to relate to and communicate with those that don't understand what ripening is. We don't flush, we ripen. When we ripen, we like to bind up and "flush" out all the excess salts and we also want to continue using a simple source of carbs to help translocate sugars from the leaves to the buds, something 90% of grow rooms never see. For the final weeks, we toss in 1-2 TBLS of Herculean Harvest and 1-2 TBLS of Aphrodite’s (along with 1 TBL of Tritons Trawl (if you use it) for the first week of ripening then we pH to 6.4. I tend to add a little FulPower and EM-1 to be sure any excess food in the soil is getting digested by Humics and microbes and the plant is stripping the soil of all that is left to ripen with. This is to be done during the last two weeks of your bloom cycle. - **Paul Cicero #nectarassassin**

Final ‘Ripening’ prior to Harvest option 2:

“Some **#NectarFam** prefer to use straight water as a flush prior to harvest. Others use the Nectar flush all the way until the end. Here's what I do: I feed or water every 3 days. I typically flush my flowering plants 3 times before harvesting, so 3 days between flushes. I believe that using the nectar flush is the best way to go. It gives your ladies that extra nourishment they need for their final. The end result will give you bigger, denser, tastier, more colorful flowers. All flushes should be pH'd at 6.4

Flush #1: I use 3 tablespoons Herculean Harvest, 2 tablespoons Aphrodites Extraction, and 2-3 tablespoons Triton's Trawl if you have it. I also add in 2 teaspoons SLF-100, and a touch of Hygeia (yucca) to act as a wetting agent, about 1-2 teaspoon. All measurements are per gallon. I grow in 20 gallon smartpots in soil #1, so usually 2-2 1/2 gallons is enough flush per pot. I try to achieve a *slight* runoff, but I try not to flood the medium.

Flush #2: Basically, the same as the first flush, except I don't add any SLF or yucca.

Flush #3: I'll pull back slightly on the dosages; typically, about 1-2 tablespoons Herculean Harvest, 1 tablespoon Aphrodite Extraction, and for the final flush I eliminate the Triton's Trawl.

During the last 9-14 days, immediately prior to harvest I'll keep my portable AC pointed at the plant, set at about 72 degrees. I will also leave this AC on during her overnight cycle. In conjunction with the nutrients she's receiving during her final push, this will help her color up nicely. Every day

I rotate the plant ¼ turn so the cooler air from the AC has a chance to hit the flowers equally. Be careful if using that method, as always, it's important to keep an eye on the climate. 3 days after the final flush, it's time to chop her down and trim!" – **Ryan McCabe #nectarassassin**

Benefits of Aphrodite's and Herculean for Ripening:

"That carbon product (Aphrodite's Extraction) is sucrose, dextrose and glucose, all simple sugars. Basically, your phloem is 78% sucrose so when flooding the plant with more sucrose it increases turgor pressure which allows for faster translocation of nutrients. At the end of the cycle, when your plant is trying to consume itself, it takes all the available calcium and pushes it out into trichome form. Most trichomes are calcium cells which is why you see larger surface area of trichomes when using Nectar. The Herculean Harvest also flushes out the plant so it removes salts while plants are running efficiently with the sucrose. Dextrose is actually converting starch to sugar and creating that vine ripen effect. Basically, flavor and taste comes from the plants ability to convert stored biomass and starch into sugar form. The limiting factor for most synthetic gardeners is their inability to finish a plant off by converting starch to sugar." – **Nikhil Parulkar #nectarassassin**

Transitioning:

"Transitioning to flower is one of the heaviest times that the plant demands calcium. I always bump up Gaia Mania, Herculean Harvest, and Demeter's Destiny when flipping. Keep it bumped. Herculean Harvest is your baseline for plant health. You want to build a solid foundation of bonemeal to really drive the plants metabolism forward. I'm up to 1 TBL of Herculean Harvest at late veg. By my first week of flower I'm at 2 TBL, 3rd week of flower 3 TBL. 4th and 5th week-into week 6, I'm at 4 to 6 TBL of Herc. Then I'm backing off by the end of week 6/7 prepping for 2 TBL of Herculean Harvest for flushing." – **Tim McCormick #nectarassassin**

Peak Flower Feeding:

"Ending the 6th week and I can confidently agree that double Gaia Mania and 5ml vs 2ml Mag Amped is extremely helpful at keeping up during peak flower. No more chlorosis under the DE bulbs. Doubling up on the Gaia is going to come in very handy for when plants are nearing transplant time and need a little extra boost, same with transitioning under intense light. Those were two areas I needed improvement for sure." – **Mikael Leeplop #nectarassassin**

Soilless Mediums:

"Quick tip for blank substrate (soilless): If you're having deficiencies or having problems with leaf curling, yet can't see any tip burn or any signs of nutrient toxicity, you're going too light on the feed. My biggest problem with this line is I under feed and problem comes from under feeding. Especially if you're using inert media like Promix, pure coco, blank top soil. Over feed the first feeding on those blank substrates and then pay attention to your substrates ppm/pH. Ppms can dip faster than you think. That's our eyes and ears for reading this plant. More food, listen to what the plants want. They will tell you." – **Tim McCormick #nectarassassin**

Demeter's is your friend:

“Calcium is the driving force to the nectar line. It's the backbone, everything else revolves around it; minus Nitrogen and Potassium (N and K). Without enough calcium, the plants literally eat themselves right in front of you. Cannibalism, if you will.

Nectar's nutrient line is completely different than anything we have ever known when it comes to growing plants. When you understand that calcium plays the biggest role, finding solutions to your problematic situations will become easier to resolve. We all know Bonemeal aka Herculean Harvest is the strongest tool we have, but I feel some are missing its partner in crime, Demeter's Destiny! Demeter's is liquid calcium derived from milk products and designed to not only boost the calcium but to chelate magnesium naturally from coir fiber and peat moss. Do you ever experience the purple stems? How about magnesium deficiency? Maybe the leaf claw that the industry says is an N toxicity? How about the hollow stem? These are just some issues people might come across and be completely pointed in the wrong direction because those people are not Nectar for the God growers. They are salt growers, or the 'listen to Ed' growers. When using Nectar, these are all calcium deficiencies that are often misdiagnosed. The drive for calcium becomes twice as much as they once were or could be on other nutrient lines. So adding double the amount of calcium (even more at times) induces the requirements needed to move all those other elements. They are present, they just need the lift to get to the mountain.

I suggest (depending on your lights, environment and CO2) to run the Demeter's Destiny at the same amount as you feed Gaia and when it comes to flip day and into bloom, start thinking of Demeter's as part of your base nutrients and not an additive. You don't necessarily need mag amped, you don't need Epsom Salt for mag issues, you may not need less nitrogen (depending on situation and genetics) you don't need more of this and less of that. 9 times out of 10 you are not using enough calcium and need to bump it up. If you're using DE lights and CO2 you need to feed even more. Sometimes as high as 1TBLs Demeters:3TBLs Herculean. In my opinion, it really depends on the genetics you have and the environment they are in to decide how much Demeter's you are going to need. I have found that more is best, when it comes to Demeters, Herculean Harvest and calcium in general.” – **Ollie Krops #nectarassasin**

Starting out with Bloom Khaos (BK):

“You may have heard growers claim that Bloom Khaos ruined their crop. I have run a total of about 10 strains (No Kush strains yet) using the Sample schedule in Veg and Roman schedule in Flower and I have yet to find a strain that hasn't responded well to Bloom Khaos. I start my foliar around mid-Veg and I begin with ¼ tsp or 1.25 ml/per quart in foliar applications. As I increase my BK feedings, I begin to increase Gaia and Herculean until I no longer see calcium deficiencies (described in the Nectar Bible) that are unique to Nectar. What I tell anyone who wants to give BK a shot in their garden is; 1) Before beginning BK, take 2 or 3 slurry tests throughout a week or two and verify that your pH and ppm are within an acceptable range. If you're out of the 'sweet spot' running normal feedings, there is no sense in exacerbating the issue by increasing the plants 'want' for calcium. Meet their needs first. Otherwise, you'll end up on the losing end as BK exposes the truth about your soil availability. 2) If your plants have been struggling, if they don't look healthy, don't bother with BK. Get them healthy first. 3) Start off with small amounts until your plants prove they can take the increased BK dosage. If you ever get low on calcium in the soil, the girls will tell you fairly quickly. Lastly, if they aren't responding to the BK, or responding negatively, stop using it until you get the line dialed in on that particular strain.” – **Bill Burns #nectarassassin**

Calcium deficiencies unique to Nectar:

“Even though this line is calcium based, for a plethora of reasons, your plants can become calcium deficient, especially if your pH is off and/or you’re not giving enough calcium prior to starting Bloom Khaos. If you see leaves that look like reverse tacos or leaf tip curling down while the rest of the leaf is straight, these are ‘potentially’ signs of Calcium deficiency that are unique to this line. When your plant is Ca deficient, the middle or center of the leaf will grow faster than the margins due to calcium being only partially mobile. You will hear gardeners describe it as throwing ram horns, alien fingers or tip curl with dark green leaves. Many new to Nectar growers misdiagnose it as Nitrogen excess, but it’s not. Decreasing the Bloom Khaos while increasing Herculean Harvest and Demeter’s Destiny along with correcting the pH with Olympus Up will alleviate calcium uptake issues.” - **#nectarassassins**

More Nectar Tips:

Nutrient uptake antagonism

Nutrient uptake antagonism refers to the competition between nutrients for uptake by plants. The two nutrients, often ions with the same charge, are said to be antagonistic with regard to the other. If you're feeding your plants a strict Nectar diet, it's highly unlikely you'll experience any nutrient antagonisms. That's because Nectar offers a complete nutrient profile. It's when you start to add additional nutrients with higher/excessive amounts of NPK, that you might complicate problems in the soil. Some examples include:

- Phosphorus excess leading to reduced zinc uptake
- Potassium excess reduces magnesium and calcium uptake and vice versa
- Magnesium excess blocking Calcium and vice versa
- Calcium excess can cause boron or magnesium deficiencies and vice versa

A common solution for an apparent deficiency is to add a supplement that can correct the deficiency. However, it is possible to be feeding an excess of most nutrients and still be deficient in one or more of them. This occurs when an excess of a particular element blocks the absorption of another element the plant needs; that does not mean it is no longer present in the soil or the solution. If signs of a deficiency occur, consider that a nutrient antagonism is occurring before adding more supplements. If additional supplements were added before the symptoms showed up, a flush of the root zone using 2 TBLs per gallon of Herculean Harvest pH'd to 6.5 to 'reset' the soil and begin regular feedings while eliminating or reducing any products you may have been using which might have contributed to the uptake issues.

Nutrient Antagonism Chart:

Nutrient Antagonisms	
Element in excess	Nutrients usually affected
Nitrogen	Potassium, Calcium
Potassium	Nitrogen, Calcium, Magnesium
Phosphorus	Zinc, Iron, Copper
Magnesium	Calcium, Potassium
Iron	Manganese
Manganese	Iron, Molybdenum, Magnesium
Copper	Molybdenum, Iron, Manganese, Zinc
Zinc	Iron, Manganese
Molybdenum	Copper, Iron
Sodium	Potassium, Calcium, Magnesium
Aluminum	Phosphorus
Ammonium Ion	Calcium, Copper
Sulfur	Molybdenum

Growers Notes:

FREQUENTLY ASKED QUESTIONS:

I see recommendations for ppm readings, what ppm conversion factor are Nectar growers using?

Nectar for the Gods uses the 442-conversion factor (EC x 700) when recommending ppm readings. It is important for everyone to remain on the same conversion factor when posting numbers to the group. If you use an EC meter or TDS Meter with the NaCl conversion, you will have to convert its reading for an accurate result. Consult the meter manufacturer's user guide or contact the manufacturer of your meter to see what conversion factor they are using.

Example: If you already have a NaCl meter (using ECx500), you don't need to purchase another 442 meter (ECx700 meter). If you take your readings using an NaCl (ECx500) meter you can convert the reading to 442 (ECx700) scale by multiplying the result by 1.4. This isn't an exact conversion; however, it will work and you don't have to be so precise. We're talking about an ideal range for slurry. If, for whatever reason, you are unable to do the math, you can refer to the chart below to see if you are in the range.

EC ms/cm	ppm 500 TDS (ECx500)	ppm 700 (ECx700)	EC ms/cm	ppm 500 TDS (ECx500)	ppm 700 (ECx700)
0.2	100	140	2	1000	1400
0.3	150	210	2.1	1050	1470
0.4	200	280	2.2	1100	1540
0.5	250	350	2.3	1150	1610
0.6	300	420	2.4	1200	1680
0.7	350	490	2.5	1250	1750
0.8	400	560	2.6	1300	1820
0.9	450	630	2.7	1350	1890
1	500	700	2.8	1400	1960
1.1	550	770	2.9	1450	2030
1.2	600	840	3	1500	2100
1.3	650	910	3.1	1550	2170
1.4	700	980	3.2	1600	2240
1.5	750	1050	3.3	1650	2310
1.6	800	1120	3.4	1700	2380
1.7	850	1190	3.5	1750	2450
1.8	900	1260	3.6	1800	2520
1.9	950	1330	3.7	1850	2590

My tap (or well) water tests at 250 ppm (ECx500 scale). Should I still use it?

The ppm may not be an indicator about the quality of your water. Sometimes 250ppm (hard water) may still be high quality water for growing, while other water with the same ppm's could be bad or possibly harmful to your plants because it contains the wrong salts and/or chemicals (sodium and iron to name two). You may be able to take your high ppm reading along with the pH and find that you need at least a carbon filter, and possibly a Reverse Osmosis system. Alkalinity (high pH) is a measure of the acid-neutralizing capacity of water and is usually associated with hard water. Bicarbonate (HCO_3^-) and carbonate (CO_3^{2-}), components of alkalinity, can influence soil properties and plant performance. If bicarbonate and/or carbonate levels are high, these ions can react with calcium and magnesium in the soil to form insoluble calcium carbonate and magnesium

carbonate (lime). This reaction reduces the amount of free calcium and magnesium in soil, allowing sodium to compete for and occupy negatively-charged exchanges. Sodium in excess of 50ppm in your tap/well water is problematic when it ends up in your pots. Excess sodium in soil results in destruction of soil structure and reduced water percolation through the soil profile. Phosphorus, iron, copper, and zinc are also less available to plants in calcareous (high amounts of calcium carbonate) soil, resulting in nutrient deficiencies that are often very apparent in flower when it's too late to make adjustments. Hard water can be problematic with any nutrient line and Nectar for the Gods is no different. If you only have access to hard water, high in bicarbonate or carbonate, you risk running into issues in flower which may not be alleviated with a 'flush'. When in doubt, have your water tested with a professional company. In lieu of testing (not recommended), you could opt to test it on a small portion of your grow, or invest in a filtration system.

Why is pH important with the Nectar nutrient line?

pH'ing (for 99% of Nectar users) is critical with each Nectar feeding. Because we use a plethora of organic acids and chelating materials, the pH levels tend to be on the low side. By design, Oregon's Only makes their products acidic out of the bottle which helps preserve the product or "put it to sleep" without the use of salts or other chelating agents. Adding too much Nectar without pH balancing it first may throw the soil pH way out of whack. There's a potential, starting too acidic, or too alkaline with feedings to get an influx of heavy metals into your plants or get a toxicity of trace elements.

So the 1% of users that pH is not critical; what are they using?

A little bit of luck, an outstanding soil food web and/or very high starting pH of their water. Either way, we recommend pH of your nutrient solution (feed going in) be continuously checked. 'Get dialed in' as Nectar growers would say. Let's face it, starting off with a new nutrient line and expecting everything to go as planned on your first cycle is asking for a lot. Be successful with a few harvests before you attempt to venture out into the unknown and begin experimenting with the line.

If it's critical to pH, then why are you recommending a 'microbe bump' tea or microbial inoculants to our medium?

"There is still a very vital role for microbes. The microbes are being fed and supported when you're using the Nectar line. Microbes are our root soldiers; they protect the plant from pathogens and soil borne diseases. The microbes at a non pH'd nectar feed would be tortured by the pH. It's too low. The limestone in Olympus Up buffers the soil and allows them to survive. The microbes feed on the organic compounds that were created through chemical reaction when you mix all the nutrients together and drench the soil. With that said, microbes do compete with each other and consume each other to release other forms of nutrition. I still find it important to use compost teas and other microbial products to keep your soil biology diverse and in balance. That's why I don't just use worm casting tea all the time. I make more microbial diverse teas so that I am replenishing the microbes that were consumed by other microbes to keep the community balanced and in check." ~ Scott D. Ostrander

Why won't the microbial life in our soil pH it for us like in traditional organics?

Undoubtedly, soil microorganisms are essential for proper functioning of ecosystem and soil fertility. Being that we have anywhere from 12 -20+ weeks in a small container, we don't have the luxury of quick responding traditional organics in meal forms as our only nutrient inputs. 'Traditional Organics' dictate that we add the amendments and let nature take its course; it takes weeks for soil microbes to digest and create the balance. The digestion is slow and the microbes are able to buffer in the rhizosphere naturally. With Nectar, we can't rely solely on the bacteria and fungi excrements to force our pH up a point or two. They need a little help, a good starting point if you will. The majority of the Nectar bottles are already as bioavailable as they can be, so there's not a need to further break them down, but rather a need to uptake them. With Nectar, the same amendments used in traditional organics are pre-digested, bottled up and stabilized with organic acids which make it naturally more acidic out of the bottle. The plants are able to access Nectar feeds the day you water it in because in manufacturing, Oregon's Only is the first giant microbe to work the meals over before they get bottled. However, we do rely on the microbes. Anything the plant can't immediately absorb, becomes food and even converts to organic compounds from the chemical reaction of the calcium and other elements in the soil. The microbe bumps we do add help manage what is left in the soil and buffer the pH using the calcite and limestone in Olympus Up.

I don't see the need to perform slurry tests, I've always tested runoff. It's much easier, so why don't you just recommend runoff numbers?

"The runoff solution running out of the bottom is all the acids and salts that are pushed to the bottom of the container when you are watering. The actively absorbing root zone will be in the higher region of the soil. If you can check those numbers from the top soil with a slurry test, that will give us a better understanding as to what is happening in the medium." ~ Scott D. Ostrander

How do I perform a Slurry test?

This test will give you a general snapshot of the current conditions of your medium. Wait for your medium to dry out in the top 2". If you just fed, it is not dry enough for this test. Wait for it to dry out. I can't stress that enough. Don't try this test with a wet/moist grow medium. Take the sample from the side of the pot, 2" down to keep from disturbing the roots too much. Obviously if you dig deeper than 2", you will want to ensure your growing medium is dry at that depth as well.

It's a 1:1 ratio grow medium to water. 1 ounce to 1 ounce, 2 ounces to 2 ounces or 1/4th cup to 1/4th cup. Most Nectar growers are using one ounce of their medium to one ounce of pH neutral 7.0 water. If you don't use 0 ppm water, you need to subtract the ppm of the water you use to perform the test, with your final ppm. For example: If you use 25 ppm water, subtract 25 from your final slurry ppm. Once you have mixed your grow medium with pH neutral (7.0 pH) water, let it sit for 15-30 minutes to stabilize before inserting your meters.

Immediately prior to inserting your meter, give a good stir using a glass stirring rod or some other clean instrument. Using an EC/TDS/ppm Meter, ensuring that the meter is inserted into your slurry to a depth that will give you a correct measurement, measure the ppm of the slurry mix. The purpose of this slurry test is to check ppms to see if your plants are efficiently eating. With Nectar for the Gods, numbers above 500 means they are starting to not eat (salt buildup). Above 900 they are not eating, they are pissed (time to flush). Below 200 they are eating and are hungry (bump up the feedings a little). Below 100, your girls are starving (bump up the feedings even more). Between

300-500, they are really happy with the amount you're feeding. [don't change anything if your plants look happy] At this time, you should also do a pH test on the slurry (most people do both ppm and pH.) Stir the slurry mixture and insert the pH meter fully into the slurry mix. Write it down, post it on the Growers page for additional feedback. *"Nectar for the Gods performs best when the medium is in the pH range of 6.3-6.7 and the ppms are between 300-500."* If your soil sample comes out with a lower pH and/or a higher part per million, then a flush with Herculean Harvest will help correct these issues.

Why did you choose a calcium base for the Nectar for the Gods line?

"Here is the rough science behind this: Our industry is really big on N-P-K. These elements have very few bonding points for other elements to attach to. So for years, we just grow really big plants that have really big fruit on the vine until we harvest. After harvest and we hang our produce, we all have noticed how it shrinks. When it shrinks, it loses its weight and the solid feeling aspect of the fruit. This is because all those water molecules we have been pumping into the fruit has now evaporated away and now the flavor of the fruit taste like field straw, or mowed lawn. Kind of a chlorophyll flavor. At Oregon's Only, we take advantage of the natural science and chemistry of the soil structure. Calcium has many bonding spots as a molecule and calcium in every form is a considered a rock (mineral). Because Calcium has so many bonding points, it has the ability to attach to almost all of the elements on the periodic table. With that being said, we have found that not only does calcium attach to everything, creating complex compounds, but it also acts as a natural chelator. If a soil has coir fiber (coco coir) in its blend, then it is rich in magnesium and potassium. Any of our calcium that doesn't directly go into the plant will then create a bond with the coir fiber and wait to be consumed by a fungi or bacteria form. When that microbe consumes the calcium as a meal, it releases a natural and buffered form of magnesium or potassium in a consumable form for the plant. Naturally digested forms of magnesium will not create the popping in the finished product that you see with synthetics. Also, calcium will increase the cation exchange capacity in your soil creating a more favorable digestive field for your microbial populations. Calcium, being a rock, will remain a rock in the plants fruiting bodies. The more calcium we can get into the fruit, the larger the fruit will be. And the best part is when you cut and hang calcium grown plants, rocks don't evaporate. That is why, on the feeding schedule we flush up until the last day with Herculean Harvest (Liquid Bonemeal) Aphrodite's Extraction (digested milk sugars from milk fat) and Olympus Up (micronized Limestone). All these forms of rock will increase the flavors, aromas and overall density of the fruit.

Another cool thing about calcium is that if you feel you are running into a deficiency, then we first recommend a bonemeal flush at a rate of 2 TBL per gallon, pH adjusted to 6.4-6.5. Calcium from bones tie up salts in the medium and create a usable compound for microbes to consume. When the microbe consumes, and discards the digested waste, they convert the sodium molecule into a usable protein or enzyme for the plant to absorb. Once a salt, now becomes a digested protein." ~ Scott D. Ostrander

If Nectar is a calcium based line, is it possible to get a toxicity of calcium?

"With calcium it is pretty difficult to get to an overdose or toxic level. A slurry test should tell you if you are too high by seeing a higher pH in the medium; like 6.7-7.5. That would typically be an excess of bicarbonate. Usually with this line, when you start to see deficiencies, 9 out 10 times it begins with the PPM's climbing up, which can then slow down the absorption rate of the plant, in turn the plant isn't accepting organic acids which will slowly build up and create a low pH in the root zone, which then further prevents the uptake of calcium. The results often look like a cal/mag

or even potassium deficiencies.” ~ Scott D. Ostrander

On the NFTG Growers pages, I hear a lot of growers telling me not to use Cal/Mag products. I’ve never had an issue, why are they so set on telling me not to use it?

“The calcium and magnesium lockouts that everyone in the industry stresses over is because most nutrient lines are either salt based or have salt preservatives. Most of the cal/mag issues we see in the use of coco coir is blamed on the coir fiber for consuming or tying up the calcium. The funny thing is that it's *not* the coco coir robbing them of calcium, rather, the salts building up and blocking the calcium from entering the plant. That is when the industry cal/mag products come in to play. Most of those cal/mag products are Nitrate based, which require a lower pH to enter into the plant. This lower pH allows the plant to fix its cal/mag deficiency by absorbing the nitrogen as a salt. Hence why the industry says you need to run a lower pH in coco. *With Nectar, our calcium forms don't change from a soil garden to a soilless garden.* The calcium forms we use are much larger than that of a calcium nitrate and require some larger stomata to be absorbed through. And because calcium is such a reactive molecule it wants to bond to anything it can get ahold of. I still recommend treating a coco/perlite mix as a soil as far as the pH and feedings of the entire Nectar line. The roots will still need that pH stimulation to promote more aggressive uptake. But keep in mind that a lot of soilless and coco manufacturers (branded companies) in our industry also charge their coco fiber with products like cal/mag, or use salt water composting. These additives can add unwanted salts into the medium and that is where the slurry test is helpful. I always check the new coir fibers ppm's before planting in it. I have found fresh coco, right off the brick to be anywhere from 150-1300PPMs. Hence why I always check.” ~ Scott D. Ostrander

I was reading the NPK ratios and realized none of the bottles really have a heavy amount of Nitrogen. I’ve always understood that you need a good amount of Nitrogen in Veg.

“There are a couple of reasons for this. The NPK you see on the label is the minimum guaranteed analysis. As with all water-soluble nutrients, this is on the bottle primarily for labeling registration purposes and should not be used to determine the quantity or quality of NPK in a feeding regimen. Many commercial nutrients have high NPK ratings, but the plant generally doesn't have access to all of that nutrient.

The other reason for the low Nitrogen count in Nectar is that organically grown plants are not as dependent on soluble Nitrogen as plants that are grown with chemical salts. That is one of the reasons for the NPK being so ‘low’ compared to a lot of other commercial nutrient lines (3-7-3 as opposed to 9-50-10). Plants are able to fix Nitrogen from a variety of sources, provided they have the resources available for them to do so. That is one of the things that Oregon’s Only strives for; feeding the roots of the plants and microorganisms that live there and allowing the plant to do what it does naturally.

We realize that many plants have different nutrient requirements. Some prefer more Nitrogen than others. If you find that your plants are looking a little Nitrogen deficient, try giving them some Pegasus Potion. It is an organic 2-0-0 and is a very effective nitrogen that gives your plants a protein based Nitrogen kick instead of a salt based nitrate load that can lead to problems such as pests, molds, etc.” – **Oregon’s Constant Gardener**

I keep hearing this talk about how Nectar creates a better final product than other nutrient lines. How so?

“What we do here in our manufacturing facility is digest all the nutrients ourselves with organic acids and enzymes. When we do this, we make organic meals such as feathers, bone, alfalfa, soybean, fish bone etc. into totally available nutrients through pre-digestion. After it has been completely digested and ready to bottle, we drop the pH of the solution with acids like Fulvic, Humic, Citric, Carboic etc to stabilize it so that bad microbes cannot thrive in the concentrate. All the other organic nutrients in our industry use salts as preservatives and that allows them to bottle at higher pH's but the nutrients are not nearly as available to the plants. Also, when there are high levels of salt available to the plants, they will take the sodium in first because it is an easier food source. The rest of their solutions need to be digested by microbial activity in the medium to make them available for the plants consumption. The downfall of salt preservation is that it often causes lock outs and deficiencies. When the roots stomata take in a salt crystal, it often plugs the roots stomata slowing down nutrient availability. We often recognize this as a Magnesium deficiency (brown tips, curling leaves, razor edges). When this happens, most stores peddle Cal /Mag products on the gardeners to offer up more magnesium to the plant. It's a quick fix, but not sustainable. Most Cal/Mag in our industry is Calcium Nitrate and Magnesium Nitrate with iron EDTA. These forms of nitrogen and iron quickly green plants up but encourage the reproduction of powdery mildew, bud mold etc. You see Nitrogen, in a nitrate salt form, is a high-energy water molecule. When you force water into the fruiting bodies it can create flower issues like rot or mold, also being a high-energy molecule it creates a hot water plant increasing the infrared signature for bugs to see. Magnesium is a heavy metal, and if you've ever had finished product snap crackle and pop when consuming it, then you have used too much magnesium. Magnesium, in its pure form, is a flammable metal and when you pump too much of it into your fruit you can experience the flammability when consuming it.” ~ Scott D. Ostrander

I have a friend using a Super Soil and he tells me that Nectar will never be able to match his amendments.

Obviously, there are many variables, but Nectar is all natural and uses many of the same organic amendments you would see in a Super Soil. With Nectar, however, your food and vitamin complex is in a plant available form. The plants are getting access to these elements faster than if you were building a soil blend. So there is a learning curve to building a soil blend where you're pumping all those meals of blood and guanos and have different levels of NPK. You're not a plant, so you don't know what day you need what element and what ingredient, so you're stacking this soil up with a lot of nutrition and the plant is getting whatever is soluble and that may or may not be what it needs at that time. Many minerals in your soils are unavailable to your plant. This is the term that gardeners refer to as 'locked up'. If the beneficial microbes are no longer present or not present in adequate numbers, your inputs remain "locked up" in the soil and aren't taken up through the roots. With Nectar, we take all those same exact meals, all of those amendments and we become the microbe and we perform enzymatic or biological digestion to break it down so that it is immediately available. The great part is, you can select which meals your plant gets on which day.

I'm following the feed chart, but my nutrient mix is 1800 ppm in one feeding?

“Nectar is not a *“stay within this ppm range”* nutrient line. A lot of this will be determined by plant variety. I have some growers that say anything over 900 is a waste and some growers that want you

to peg the TDS meter and still want more. Some feed in bloom between 2000-2400ppm. Most gardeners using Nectar average about 1400-1800ppm per feed in bloom. (ECx700 scale)” ~ Scott D. Ostrander

Do I need to use the entire line of Nectar for the Gods?

“It is not necessary to use every product in the line to produce healthy productive plants. In fact, I always discourage the Roman [formerly Pro] level for those growers moving to this line, and especially for completely new growers using the line. Always start off with the Spartan [formerly Simple], maybe the sample box or most of the Greek line, then add one product each round to see what it does for you and your garden. The Spartan [Basic 4 plus Olympus Up] level recipe provides a well-rounded balanced nutrient to meet all your plants basic needs. We have found however that the additional products have made it possible for the gardener to enhance and push certain stages of the plants life by providing specific elements to be used to enhance different aspects of the plants.” ~ Scott D. Ostrander

I grow with ‘X’ or ‘Y’ Nutrient Line. I want to make the full switch, but I am nervous.

We have growers switch mid grow and even mid flower with success. We want you to be successful, so if you’re not comfortable jumping in ‘feet first’, we would suggest that you always test one plant or a small sample of your grow. Stick with what you know on the majority of the garden and test new nutrients on one or a couple. It's easier to try and fix one plant’s problems instead of an entire garden, especially when you’re getting comfortable with a new line. As always, feel free to reach out with questions, the Nectar for the Gods Growers group on Facebook is very helpful.

Is it ok to use additional nutrient lines with Nectar for the Gods?

“I just want to remind everyone, when you are all adding more and more stuff to the Nectar line and start having issues, come clean on what you are using so that we may all help a little better. Nectar doesn't play well with too many others so before you start accusing nectar products for screwing your plants up, lets also look at the other stuff you are putting in and not telling us. I have seen a handful of issues lately and after 10's of questions only to find out that they were also adding in "X" which is not compatible with the line. I am getting scapegoated because you wanted to try a PK booster and torch your plants and then that's Nectars fault. Just saying. The more we know, the better we can help.” ~ Scott D. Ostrander

I just flipped to flower 2 days ago and I was wondering what would be best to use for my girls. They have been nutrient free since germination. I have the free sample pack, but I want to make sure I get a good yield at the end.

“Start the beginning of the flowering cycle on the feed schedule. Use the advanced section omitting the Morpheus and Aphrodite’s. And for the first week use half strength. The next week up it to 3/4 strength and by mid flowering, try to be at full strength. Make sure the pH of the input solution is around 6.4-6.5, and stand back and watch them flower.” ~ Scott D. Ostrander

I have the Sample box, is there anything else you recommend?

“Honestly, the only additive I would recommend for your first stage, outside of what is in the sample box, is the Aphrodite’s Extraction. Leave the rest on the shelf for now as I believe you will get great results with the sample kit. Then in the future you can add a product or two to the recipe so you can see what each additional product does and why we make it. Not having them all the first few rounds is better because most of the additives in the Roman line are sold to fix something, enhance something or simply enough gardeners requested it, so we made the product.” ~ Scott D. Ostrander

Am I able to mix these nutrients together in a large container before adding into my water or should I measure each one separately?

We do NOT recommend doing so, but to answer your question; “Most of the nutrients can be mixed together without diluting first with water without a problem, except for Zeus, Poseidonzime and Bloom Khaos. These three nutrients are more of a base than the others due to the Humic acid we use. They have higher pH's so they will react less favorably to the more acidic products. We use Humi-Solve (Ful-Humix) and Fulpower from Bio-Ag. Best Humics and Fulvics in the country. The rest of the nutrients will blend in concentrate due to their acidic nature, but the Humic acid base products when blended to the others will make a black cottage cheese solution.” ~ Scott D. Ostrander

I have the Sample Box, how far into my grow will it take me?

Bill Burns says “That’s very hard to say, that will depend on many variables, including how long you keep your plants in the Veg stage. The information below is based upon a ‘feed, feed, flush, feed, feed, tea’ schedule, feeding every 3 days in flower.

If you used everything in the sample pack, *solely during the flowering stage*, for 1 run on an 8-week strain and followed the EXACT measurements from the Sample Kit feeding schedule, you could root drench 10 gallons of nutrient mix every 3 days for 6 weeks, with a 2 week flush at the end using only Herculean Harvest. This math is based upon a 2 TBL/gal Herculean reset and a 2 TBL/gal Herculean ripening flush. If you deviate from this, it's on you. This math is based upon that schedule only. The only other *catch* is you'd have to purchase the following additional bottles to complete the run.

1. Athena's Aminos - 1 more quart
 2. Herculean Harvest - 1 more gallon plus 1 more quart.
 3. Bloom Khaos - 1 more quart
 4. Olympus Up - I would purchase another gallon, but you may be able to get by with 1 or 2 more quarts depending on your water source pH. It's really hard to say how much Olympus up you will need.”
-

How much will 10 gallons of Nectar nutrient mix feed?

“I use #4 Oregon’s Only soil, and 10 gallons will feed approximately 5 girls in 10 gallon pots or somewhere around 6 to 7 girls in 7 gallon pots.” – **Bill Burns**

Why do some of the Nectar labels say derived from Leonardite? I thought Nectar contracted with BioAg Humics?

It is true, NFTG uses BioAg Humics. Shale (Leonardite) versions of Humic are not as bio-available as Humics from fresh water vegetation. The downfall about reading the labels is that the generic “derived from” statement for most Humic products will say Leonardite. This is not necessarily the case; it is just what the agricultural departments allow manufacturers to say. The only way to find out is to contact the manufacturer to see where their humics are derived from. NFTG Humics are definitely derived from fresh water vegetation and are superior to Leonardite.

I keep hearing about gamma in Bloom Khaos. What is it?

“Bloom Khaos is literally what will put Frank in either the think tank at area 51, or create a whole new name for himself in the science world. This product is why we are at Stanford University. The active ingredient in this is not on the label because there is no scientific name for it. We call it ‘gamma’. The nickname actually came from a customer who said ‘It’s like watering gamma radiation.’” ~ Scott D. Ostrander

Longevity of the ‘Gamma’ reaction in Bloom Khaos

Does anybody have any information about how long a gamma reaction from a Bloom Khaos application occurs once it's entered the soil? It appears to me, that it continues to keep pulling calcium past your feeding days. Never in the past have I been concerned about feeding my plants plain water but in the back of my head I get nervous about becoming calcium deficient with doing so in bloom.

“The gamma reaction is immediate that is why you should add it last to the reservoir and feed as fast as you can. The residual effects are; it over stimulates the calcium pumps in the plants vascular tissue promoting the uptake of more Calcium and Phosphorous. Once the plant fills its needs for that application of BK then the pumps will return back to normal function. That is why when you start with really light doses at the beginning and slowly increase them you don't have as many issues with plant stress. But when you come out of the gate at full bore, you can over stimulate the pumps and the plant starts grabbing everything it can uptake. If you don't have a healthy available calcium source in the root zone then your plants will take up excess nitrogen and potassium which then gives you the spotting, dried edges and crispy tips. There is no magical recipe, each plant, each garden and each environment are slightly different if not vastly. It truly is the dance between feeding them bone meal and inoculating the Bloom Khaos.” ~ Scott D. Ostrander

What size bottles should I purchase?

“This will depend on the size of your garden. *Buying in bulk, will save you money over buying one quart at a time. The retail price of each product results in a savings of 1 quart for every gallon purchased. In other words, if you purchase a gallon of product, you’re only paying for 3 quarts, and getting 1 quart free. For every 2.5 gallons, you’re getting 1 gallon free, and for every 5-gallon purchase, you’re getting approximately 2-1/3 gallons free.” – **Bill Burns** **based upon quart pricing*

“As far as sizes, I would start with quarts and gallons of the essentials and maybe 2.5 gallons of Athena’s and Herculean. They sell fast and once people figure out how much they will use, they go right for the bigger, more economical sizes. We recommend using our Olympus up not only as a pH adjuster but it is indeed a soil food as well. Doesn’t normally sell in the pH section but when faced next to Herculean Harvest it moves fast. The importance of the Olympus Up is due to the fact that we don’t use salts to preserve the line, instead we use organic acids. These acids work as digesters as well as stabilizers and it allows us to add valuable calcium calcite to the solution to adjust pH. Acts like a calcium delivery system.” ~ Scott D. Ostrander

How does Scott Ostrander Feed?

“There are so many schools of thought with this. Do you want more medium for enhanced microbial activity? More aggregate for superior drainage? Do you want to feed more often, but want the organic matter? So here are my two cents on the matter.

I too enjoy feeding more often and the result in that is more finished product. I run the #4 as is, right out of the bag, and the trick I have found to get to that point of daily feedings is to feed less volume, more often. For instance, when I first transplant for a 6-inch pot to a 3 or 5-gallon container, for the first three to six days, I only give them enough food/water as I did when they were in the 6-inch pot. And I only water the root ball and about 1-2 inches outside of the ball. Slowly I increase the volume of food and the distance from the root ball until I reach the edge of the pot. By doing this I am training the root system to dive into the medium to look for additional moisture. The more the roots grow down and out to the container walls, the faster they will fill the pot. By the time I am into flowering, they should be taking a good amount of volume, let's say around a gallon of food a day. I continue this throughout the flowering cycle and by the end of the fourth week, into the 5th week, I am feeding them every single day and up to 2.5-3 gallons of food a day (now in 15 gallon pots). We have found that most gardeners have a tendency to over water their plants in the early stages of the plants life. When this occurs, it tells the plants that the medium is potentially harmful and lacking oxygen. If the plants sense that there is too much moisture in the surrounding soil, they will avoid growing into it in fear of getting root rot or other fungal diseases. I have seen many up rooted plants that when you direct the medium at the end and you can easily identify the original root ball from the transplant, and then there are barely any roots in the middle of the medium and a layer of roots surrounding the edges of the pots, this is a sign that the roots raced right through the soaked soil to get to the edge so that they can breathe. Our plants aren't bog plants and are not fans of wet feet. So, if you are careful at the beginning, and water less volume more frequently, they should fill the container by the end.” ~ Scott D. Ostrander

I went to the Harley Smith seminar and he stated that if you add sugars with nitrates, they would be driven into plant matter. I’ve now cut out Medusa’s Magic because I use Aphrodite’s and I don’t want the nitrates in my finished product.

“No. Not the case at all. That might pertain to nitrate based food. In Nectars case, nitrates are not in the form of plant food. The nitrates are added to chicken livers. The acidity changes the nitrates into different compounds and then the chicken livers are diluted into the product. Then you dilute the product into water. We do not use mineral based nitrates. It's less than 5% in the make-up of the product used only for neutralization of chicken liver acids and stabilizing the product. It is not a form plant food.” ~ **Tim McCormick #nectarassassin**

I see people recommending a feed, feed, tea, feed, feed, flush. Not sure what that means?

Most gardeners are using a feed, feed, compost tea (microbial drench), feed, feed, Herculean flush (to prevent buildups and salt loads). Below is a recommended schedule. We have gardeners who feed every 3 days, every 2 days or every 1 day. Some gardeners are also using a feed, tea, feed, tea or a feed, feed, feed, feed. Simply adjust the days below to your schedule.

Schedule	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Mon	Tue	Wed	Thur	Fri	Sat	Sun	Mon	Tue
Every 3 days	Feed			Feed			Tea			Feed			Feed			Flush
Every 2 days	Feed		Feed		Tea		Feed		Feed		Flush		Feed		Feed	
Every 1 days	Feed	Feed	Tea	Feed	Feed	Flush	Feed	Feed	Tea	Feed	Feed	Flush	Feed	Feed	Tea	Feed

I like the idea of a feed, water, feed, water. I notice it's not working well with this line. Any tricks?

“There are many possibilities when growing with Nectar. Most of them work, as evidenced by so many successful gardeners using various feeding methods. The only time I use plain water is when I don't have time to feed in the mornings before work, and I feel that my pots may be too dry by evening. I'll give them a 'sip' of Herculean Harvest (Ca) and Demeter's Destiny (Mg) flavored R.O. water, and then perform full feedings when I have time later in the day. Besides that, there aren't many Nectar growers implementing plain water days. It may work, but only if you're consistent with your slurry tests. Remember, a soil slurry test in the 300ppm - 500ppm range, and you're doing well. If you're below that range, it's possible you aren't giving them enough food on your feed days. It's also possible, on plain water days, you're not adding any additional nutrients to the plant. For instance, reverse osmosis (RO) water contains no minerals [to include calcium and magnesium], so if you've been using RO Water on plain water days and not adding additional calcium and magnesium, you're possibly contributing to your own demise. It can't be stressed enough; slurry tests are going to be your #1 indicator of nutrient availability in the soil throughout the cycle. If your tests are coming in at 190ppm and you're giving them plain water immediately following the low ppm test, they will cannibalize themselves to survive. Slurry tests are just another way we go about 'dialing in' any new program. It could be as simple as needing additional calcium. Some growers, including Scott, have said that they don't ever water without adding a calcium source from the line.” – **Bill Burns**

“I personally always add Herculean Harvest with any plain watering. I recommend using this with every single watering because the plant always wants calcium for cell and plant development.” ~ **Scott D. Ostrander**

I hear people say that you don't need to flush organics. Why is it recommended to flush and/or final flush when using this line?

“We use the term flush to relate to other people's growing style with salt based/synthetic nutrients. It's a figurative term. There is, however, a science behind it. The bonemeal binds to excess ppms which have caused lock out. Pairing with Olympus Up, the flush stabilizes the pH when bacterial colonies (microbes) excrete acids and drop the pH.” - **Tim McCormick #nectarassassin**

I'm experiencing nutrient deficiencies with my plants. Should I flush?

“When in doubt, flush it out. If you are noticing signs of deficiencies like calcium, potassium, magnesium or nitrogen, do not run out and buy a bottle of pretend cures. Nine of out ten times these deficiencies will directly be related to your soil's PPMs and pH numbers being out of whack. This would be a good time to do the “slurry test” and react accordingly. The calcium sources in the Herculean Harvest and Olympus Up will help tie up excessive salts and neutralize the acids and bring your pH and ppm's back into range.” ~ Scott D. Ostrander

How do I know if I have a deficiency or a lockout?

“Nutrient lockout is when your plants are not absorbing any of the nutrients in your soil. It can be caused by pH outside of optimal range (too high or too low), a buildup of salt (see FAQ in this bible for an explanation as to how this can happen, [even when using Nectar]) or not having a diversity of beneficial microbes to help digest plant unavailable nutrients. Contrary to what most people believe, adding more nutrients in a soil drench won't help because the plants aren't taking up what's in your soil now, so adding more is wasting money and leads to more problems.

A nutrient deficiency may occur when you experience nutrient antagonism (a chemical reaction between two nutrients which cause your plant not to uptake a specific nutrient) or you haven't used enough of a specific nutrient (magnesium for instance when using RO Water) That doesn't mean that you need mag products or cal/mag products to run Nectar, there are products in Nectar that contain mag and chelate mag naturally from the soil, but you have to pay attention to your inputs and ensure they are sufficient for your garden.

Some people use deficiency interchangeably with lockout, you're going to see some of the same symptoms as a nutrient deficiency. The difference will be in your slurry numbers. You can have 6.5 pH and 400ppm slurry test and have a nutrient deficiency, but it doesn't mean you're locked out. Often times, growers will have a good slurry and a sad plant. That's when it gets a little trickier to troubleshoot. This is when you need to look closer at your feeding chart, your feeding schedule, the Nutrient antagonism chart or your water source and decide what your next steps will be.

The best way to alleviate nutrient lockout is to do a good flush of your medium using 2 Tbls of Herculean Harvest. Runoff amounts, for some, will be determined by how far off your numbers are from optimum.” – **Bill Burns**

What's the theory behind a Herculean Flush? Why is it recommended to flush so often if this isn't a salt based line?

“You can get salt buildup from coco coir, poor drainage, manures, sulfate of potash, Epsom salts, Ca/Mg + products etc. Without knowing your water source, what other nutrients and amendments you are using, or what medium you are using (some have high iron and salts), it won't be easy to say you do or do not need to flush. Good drainage carries the salts down through the soil profile and out of the root zone. Without drainage, salts will accumulate regardless of any applied soil amendments. Also, keep in mind that coir fiber contains sea salt and potassium salt in high amounts. Depending on the supplier and how they prepare the coir prior to bagging, it may still have high salt content. It's best to measure the ppm (through a slurry test) of your medium prior to transplanting into it. The flush in 'feed, feed, flush...' refers to a 'maintenance flush'. This 'flush' is 2TBL/gal of Herculean Harvest pH'd to 6.5 using Olympus Up. The term 'flush' is a little misleading. We'd call

this more of a ‘reset’. If you’re not correcting any plant issues, for your maintenance flush or ‘reset’, you only need to fully saturate the media. Very little to no runoff. If you do have runoff, you must ensure that any runoff does not re-enter the container. This flush should reset the soil pH (if necessary) along with correct any ppm lockout and/or salt issues. The theory is that the addition of available/unbonded calcium in Herculean Harvest (calcium phosphate) and Olympus Up (limestone) ties up the acids, attracts the salt molecules and converts them into organic compounds. These compounds are now too large for the plant to uptake; however, the microbes release extracellular enzymes outside of their bodies in the hopeful act that those enzymes will break down those organic substrates into forms that they consume. After the microbes consume those organic compounds, they convert them into plant-available forms which they either excrete or are released when individual cells die. You’ve successfully reset the soil. Some growers report that they don’t flush/reset much at all. Based upon their slurries; soil pH and ppm are within range and they proceed with the next feeding. Each individual grower will need to decide the best course of action, but the maintenance flush/reset is available for those that prefer to use it.” – **#nectarassassins**

So, flushing with Nectar is just saturating the soil/media?

“That really depends on what stage of growing you are in. A completely dry soil is one in which the volume of water is zero, and the degree of saturation is 0%. A saturated soil is one in which the volume of water is equal to the volume of voids, and the degree of saturation is 100%. A soil in which the degree of saturation is between 0% and 100% is called a partially saturated soil. When you’re flushing with Nectar, you are generally shooting for 101% to 105% saturation. You’re looking for 1 to 5% runoff. Example: If your 7-gallon pot takes 1 ½ gallons of water to saturate to 100%, then an additional runoff of 2 oz. to a max of 9 oz. is all you’re expecting to see in your runoff. Most Nectar users saturate 101-105% with their Herculean maintenance flushes. At final flush/ripening, they may flush and saturate to 110%, with their runoff. This really comes down to personal preference and what you’re looking for in the final flower. Keep in mind that you will sometimes hear people on the pages say to flush 3x or 10x the amount of water through your pots to correct issues. This is a completely unnecessary step when dealing with Nectar and comes to us from those growing with synthetic/salt lines.” – **Bill Burns**

If I’m running an 8-week strain, starting in flower, what week should I double or triple the Herculean Harvest?

If you’re following the feed chart on any feeding regimen, growing an 8-week strain, you hit the ‘double or triple Here’ feedings in week 3 and continue those until (or through) week 5.

You can fine tune this stage and don’t have to follow the Early, Mid and Late feedings. For instance, using the Roman Regimen, I start at the 2 TBL/gal in week one and bump it up 1 TBL a week until the end of week 5 and then start reducing it until the flush. That gets you up to 6 TBL per gallon. If you want more than that, then bump it up 20 ml/gal each week until the end of week 5. That puts you at about 8.5 TBL per gallon.

** More bone meal does not always equal more at harvest. We highly recommend if you reach the 8.5 TBL/gal mark, that you are using the max Bloom Khaos as a soil drench and/or CO2 in a sealed room.*

When should I begin final flush, and more importantly, what products should I use?

“There are going to be many opinions regarding this question and they all will have their merit and their validity. We personally have seen an increase in weight by using the Herculean Harvest as a final flushing agent and an increase of resin production from the use of the Aphrodite’s Extraction during this stage as well. The continual uptake of calcium in the last stage helps promote denser cell mass in the fruit which in turn will force more oils to the surface. I personally start by using 2 TBLS per gallon of the Herculean harvest pH'd usually to 6.4-6.5 for my initial heavy flush. (this also depends on what my final slurry numbers look like before the flush, I adjust if the numbers are out of whack) First initial flush I root drench a lot, enough that I get substantial runoff. After the initial flush, I wait for the pot to dry out in the top 2” of soil, and then I give them enough to where I fully saturate, get some run off, but not pouring out. The last day or two up until harvest, I hit them with one last day of just water and then let them dry up and chop. Many users will get to the last two weeks, do one week of the Herculean Harvest flush and one week of just water and have great results, and some do just plain water all the way out at the end. What I recommend trying is half of the plants one way vs. the other way and find your happy place. It all boils down to your personal taste and what you are trying to achieve in your garden. But honestly don't think that there is a completely wrong way, except maybe hitting them with a shooting powder or PK booster or something ridiculous like that.” ~ Scott D. Ostrander

I have always just flushed with plain old water. My thinking is "well, if I'm flushing, why would I continue to add nutrients to the water going into my soil?" My million-dollar question is this; how many waterings/days/weeks should I flush with the Herculean and Aphrodite? I really would like to nail this as my fruit is improving every run I use Nectar.

“There are going to be many opinions regarding this question and they all will have their merit and their validity. We personally have seen an increase in weight by using the Herculean Harvest as a final flushing/ripening agent and an increase of resin production from the use of the Aphrodite’s Extraction during this ‘ripening’ stage as well. The continual uptake of calcium in the last stage helps promote denser cell mass in the fruit which in turn will force more oils to the surface. I personally start by using 2 TBLS per gallon of the Herculean harvest pH'd usually to 6.4-6.5 for my initial heavy flush. (this also depends on what my final slurry numbers look like before the flush, I adjust if the numbers are out of whack) First initial flush I give them a lot, enough that I get substantial runoff. After the initial flush, I give them enough to where I get some run off but not pouring out. The last day or two, I hit them with one last day of just water and then let them dry up and chop. Many will get to the last two weeks, do one week of the Herculean Harvest flush and one week of just water and have great results, and some do what you have done in the past and that is to just plain water them all the way out at the end. What I recommend trying is half of the plants one way vs. the other way and find your happy place. It all boils down to your personal taste and what you are trying to achieve in your garden. But honestly don't think that there is a completely wrong way, except maybe hitting them with a shooting powder or PK booster of something ridiculous like that.” ~ Scott D. Ostrander

I’m running straight Coco coir and I thought my pH should be lower in Coco, what do you recommend running?

The pH scales you mostly see with other lines is based on ionic relationships between the medium and salt-based minerals.

“With Nectar, the pH remains the same for all mediums. Why? Because Nectar uses an organic calcium molecule; it's going to enter the plants (optimally) at 6.4 pH regardless of medium. Organic molecules are not restricted by the media like salts are and you just have to find that sweet spot for calcium uptake with Nectar. Usually around the 6.2 to 6.5 range and calcium will grab onto almost all other elements and transport them into the plant. Like silicon, calcium is a transporter molecule. ‘Things’ and pH scales change when you start using a different approach to nutrients. Nectar is not a salt based/synthetic nutrient line. It is not solely reliant on ionic charges for elemental uptake like salts are. With synthetics, you have to have your pH in a specific range depending on your medium or you have lock out. It's a lot more volatile in Hydroponics as there is no buffer. Coco likes to grab calcium and magnesium a lot so you need to be in the 6.0 to 6.8 range with synthetic lines. Soil is a little more forgiving as the salts have a broader spectrum to be absorbed in.” ~ Scott D. Ostrander

Why does Aphrodites Extraction get stringy and appear to separate or go hydrophobic when added to the nutrient solution?

“It is caused by the proteins from the milk fat reacting with the acids and is completely normal. If you’re following the feed order, Herculean Harvest brings the pH down and is mineral based (bones). The Aphrodite is sugars from fat so it wants to convert back into pure proteins.” ~ Scott D. Ostrander

I was given half of a 5gal of Triton’s Trawl, said about 60 days old. The pour nozzle broken off for "a few days" and it smells absolutely rank. Should I just toss it?

“Nope. Maybe transfer it into an old jug of something else. Seal it and if it is not swelling then it is totally fine. The stuff smells bad no matter what. And sense the lid was off for a minute, all the mint smell should be gone and it should be smelling tritons-rific.” ~ Scott D. Ostrander

When keeping a Mother plant, do you guys use mid or late veg? When's the best time to take a clone? I've been doing it after a BK foliar.

“Mid-level for me. The mother plants certainly do not need the pro line or else they will outgrow your space and be stressed out. The basic four keeps them extremely happy and healthy. Usually just the basic four with some Athena’s and Demeter's every few feedings. I ramp up those two a couple of weeks before I am going to take cuts to promote new growth. If you choose to use anything else, keep in mind; It is a mother plant, I would go light on the silica’s and The Kraken because those can make the stems rather stiff, tough. You might find it more difficult to get woody cuttings to root rather than fresh green shoots. That is why a few days before I plan to take cuts I hit them with Athena's amino acids and the Demeter's. It gives them a growth boost and they send out fresh tops to cut from. But yes, for maintenance the Basic Four Mid Veg Level feedings do great.” ~ Scott D. Ostrander

Re-Veg using Nectar for the Gods

I recently harvested a flowering plant and left a few small branches with enough foliage on them to re-veg. Are there any magical potions that I can either foliar with, or use as a root drench to help this plant along with re-vegging?

“Flush with Herculean Harvest first, then run a bunch of water through the container and get the majority of the residuals out. Feeding with Gaia Mania, Pegasus Potion, Herculean Harvest and Athena’s Aminos will help. When you start the new program, you can foliar feed with Pegasus.” ~ Scott D. Ostrander

What is the ideal storage temperature for Nectar Nutrients?

"Anything below 95 degrees ideally 85 and lower. Freezing is not an issue other than you REALLY have to shake the heck out of the bottle if it freezes. But it won't hurt them one bit. Just remember, the colder it gets, the more the gum will shrink and the more you have to agitate it. If your shipment arrives frozen, let it thaw slowly. Do not speed it up with heat. And once thawed, shake it very well to get the gums loosened back up. Think of it like your ball sack. Go swimming in the rivers in the spring and your bag shrivels up to just about nothing. It takes some work to get the boys to loosen up and drop." ~ Scott D Ostrander

What does it mean when someone on the Nectar group says ‘bang-bang’?

‘Bang-Bang’ is somewhat of a nectar assassin catch phrase coined by our good friend Carl Gorca. Nectar is like a two-stage feeding program. Plants are fed on day of watering with a pH solution that allows for immediate uptake. The microbes then break down what wasn't available to the plant. The digested material is again, fed to the plant. Double efficient. Hence the term; bang-bang. You could say it’s reserved for those ‘in the know’, and it’s used by Nectar users to signal a virtual ‘thumbs-up’.

More FAQ Notes:

Foliar Feeding Recipes:

- 1) Feed early in the day or in the evening, when the sun/light is weaker. This will keep the sun/light from burning the leaves, as water droplets can act like a magnifying glass. Stomata are more likely to be open during these times as well.
- 2) Do not spray if the temperature is over 80F in your room, or outdoor, in the bright sun
- 3) Use a surfactant. Surfactants reduce the surface tension of the water, spreading it over the leaf surface. More surface area = more absorption. Yucca is an awesome organic surfactant. (Hygeia Hydration is a yucca extract and excellent for a surfactant)
- 4) Hit everything. Don't forget to spray the tops **and** bottoms of the leaves for maximum absorption. - remember, stomata are abundant on the undersides of the leaves.
- 5) When mixing up your formulation, whether mineral, organic fertilization or compost tea, use non-chlorinated, well oxygenated water. Bubble air through chlorinated tap water for 2 hours or leave it to off-gas overnight.
- 6) Make sure mineral ingredients are dissolved and the solution is very dilute. Chemicals in high concentration tend to 'burn' foliage and leave a salt residue. Suggestion is to NEVER add any salt base nutrient into your teas.
- 7) Young transplants prefer a more alkaline solution (pH 7.0) while older growth like a somewhat more acidic (pH 6.2) spray. Frank Wann, the resident chemist at Oregon's Only tests all of these foliar at 6.4 pH. If you are concerned about using Olympus up (pH up with calcium), you can use baking soda to raise pH and apple cider vinegar to lower the pH of your spray. The Olympus up is fine to use, but you will notice a residue on the plant that many mistaken for PM after foliar feeding. Keep that in mind.
- 8) Spray with a fine sprayer for foliar fertilization and a coarser, low pressure sprayer for compost teas. The microbes in compost tea need large protective water droplets because harsh ultraviolet rays can kill microbes in compost tea.

***** *The calcium in this line has little to no effect as a foliar feed. Always better as a root drench. You can pretty much foliar with everything in this line except Persephone Palate, Demeter's Destiny, Herculean Harvest, Olympus Up and Triton's Trawl.*

“Olympus up can be used to pH your foliar but will not absorb efficiently into the foliage itself so not a good foliar feed, but works fine as a pH adjuster for foliar feeds.” – Scott D. Ostrander

Switching from a salt based Nutrient Line like Botanicare or GH (1 Qt) pH 6.5-7.0

Flush the soil with HH for 2 or 3 feedings in a row. Until the flushes are complete, you can foliar feed her.

2.5 ml Medusa's Magic

2.5 ml Gaia Mania

2.5 ml Zeus Juice

2.5 ml Athena's Aminos

1.25 ml Hygeia Hydration (or similar wetting agent/surfactant)

This will put valuable proteins and natural nitrogen and potassium into the foliage which will help her transition into a new nutrient.

Having issues with uptake through normal soil feedings (1 Qt) pH 6.5-7.0

**Foliar feed ONLY (no root drench) up to three times a day, at least two times if possible. This will keep them fed and happy, while we wait for the root zone to dry up.*

2.5 ml Medusa Magic

2.5 ml Zeus Juice
5 ml Athenas Aminos
5 ml Aphrodites Extraction
5 ml Gaia Mania
1.25 ml or ¼ tsp Hygeia Hydration (or similar wetting agent/surfactant)

'Green Up' Foliar Spray (1Qt) pH 6.5-7.0

2.5 ml Gaia Mania
2.5 ml Athena's Aminos
2.5 ml Zeus Juice
2.5 ml Photosynthesis Plus
4 to 5 ml BioAg Ful-Power
1.25 ml or ¼ tsp Hygeia Hydration (or similar wetting agent/surfactant)

'Green Up' Foliar Spray #2 (1 Qt) pH 6.5-7.0

5 ml Pegasus Potion
4 to 5 ml BioAg Ful-Power
1.25 ml or ¼ tsp Hygeia Hydration (or similar wetting agent/surfactant)

Stress Relieving Foliar Spray (1 Qt) pH 6.5-7.0

5 ml of BioAg Ful-Power
5 ml of Athena's Aminos
5 ml of Poseidonzyme
1.25 ml or ¼ tsp Hygeia Hydration (or similar wetting agent/surfactant)

One of The Beard's Veg Foliar Sprays (1 Qt)

5 ml of the Kraken
10 ml Athena's Aminos
2.5 ml Zeus or FulPower
1.25 ml or ¼ tsp Hygeia Hydration (or similar wetting agent/surfactant)

Freshly Rooted Clones Foliar (1 Qt) pH 6.5-7.0

1.25 ml or ¼ tsp The Kraken
2.5 ml Zeus or FulPower
1.25 ml or ¼ tsp Hygeia Hydration (or similar wetting agent/surfactant)

**Below is a recommended foliar feeding for alternating days. For example, one day you would foliar with Day #1, the next foliar feeding would use Day #2 recipe.*

Veg Foliar Alternating Day #1 (1 Qt) pH 6.5-7.0

5 ml The Kraken
5 ml Pegasus Potion
5 ml BioAg Ful-Power
1.25 ml or ¼ tsp Hygeia Hydration (or similar wetting agent/surfactant)

Veg Foliar Alternating Spray Day #2 (1 Qt) pH 6.5-7.0

1 ml to 5 ml Bloom Khaos
5 ml of BioAg Ful-Power
1.25 ml or ¼ tsp Hygeia Hydration (or similar wetting agent/surfactant)

**It is important to remember, to be on the safe side, that you should end your foliar feedings somewhere around week 3 of flower. Do some people continue past week 3? Sure, by being careful and spraying the bottoms of the plants/leaves only. But you've been warned.*

** Ful-Power and/or Zeus is very much recommended with all foliar applications as it helps the other components penetrate into the cells, amplifies their effects and improves efficiency.*

Growers Foliar Notes:

Tea Recipes:

Even though you are running Nectar, we still would like to see the addition of a compost tea, microbial tea or some form of microbial inoculate to speed up the chelation process. The microbes will aid in breaking down the calcium bonds and make those portions and elements available through microbial digestion. Compost tea is probably the easiest (and most affordable) way to add billions of aerobic microbes to your soil. However, if you make compost tea with a poor-quality compost, you will have poor quality compost tea. Compost tea should ONLY be made with the highest grade of compost. NO tea will EVER be any better than the quality of the compost microbiology you start with.

Do all NFTG Growers use Teas? No. Some use bottled and pre-packaged inoculants. However, to get a better idea of the advantages of teas, note that a teaspoon of quality compost contains about one billion beneficial microscopic organisms and a teaspoon of organic tea is populated by a field of about four billion organisms. Your plants will benefit immediately from teas. Think of teas as organic steroids for your plants. Teas are not only beneficial for your plant roots, but also for leaves. Foliar feeding teas adds additional benefits of a microbial coating on the leaf when you spray it. This basically muscles out any bad microbes. Some growers dilute their tea mixtures for foliar applications, while others insist that they foliar with full strength teas. Be sure to cover at least 70% of the leaf surface with the tea-spray, ensuring that you get both the tops and bottoms.

“Not all of these benefits will be observed in every case of tea application, perhaps because the compost did not contain the necessary organisms. The necessary organisms may not have been extracted from the compost, or did not grow in the tea or may have been killed during removal from the compost or during the growth process. Other reasons for lack of the necessary organisms in the tea may be that toxic materials were leached from poor compost, or the compost became anaerobic and killed the aerobes during the brewing cycle, or some other factor was not optimal.” – Elaine Ingham

The downside to an aerated compost tea is that you have to make it yourself, you have to plan ahead, you must ensure that your equipment and environment run at optimal levels and you must clean/sanitize equipment after brewing and prior to the next brew cycle. Any human error in measuring, brewing, equipment or ingredients may possibly affect your crop for the worse. Some of this can be remedied by using “burn-neutral” ingredients (like earthworm castings, kelp, molasses etc). Also, some of the things you need might not be available at your local hydro store and you may need to do some shopping around. If this makes you uncomfortable, then it’s seriously worth considering a ‘microbe bump’ tea (recipes below) or finding a company that makes an instant compost tea. Instant compost teas are powders that fully dissolve in water becoming active instantly. No other equipment to buy, just stir and pour. You have a few options for microbe bump teas below or you may have a look at the ‘plays nicely with Nectar’ list of companies at the bottom of this guide for details about instant compost tea products that may work with your grow.

If you’ve read this far, then you are interested in making your own teas. Let’s start with some tips.

TIPS:

- Avoid using socks or pillowcases for straining/brewing, since their fibers are too tight and will likely filter out your fungi when straining your tea. When filtering your tea, be sure you screen it as close to 400 microns as possible. Paint strainers, from your local hardware store, work quite well for this function.
- The brewing process takes about 24 hours and requires application within 4 hours after aeration is complete. Brew for 24 - 30 Hours at ambient temperatures between 60 and 80

degrees F for optimal results. If colder brew for 30-34 hours if warmer brew for 20-30 hours.

- Water - all recipes should use either ditch water, rain water, distilled or dechlorinated/chloramine free water. If using chlorinated water run the air pump for an hour or two to release any chlorine in the water. Avoid the use of reverse osmosis (RO) Water and Soft water w/o nitrates, both of which have been shown to have very low fungal numbers after brewing.
- Blackstrap Molasses - An excellent source of potassium and magnesium during flowering; Be sure to use only unsulfured molasses. This is because sulfur kills microbial life, especially fungus.
- Grain Fed Worm Castings - Worm Castings, by themselves are amazing. They are highly biologically active and they also have trace minerals (that are in a form immediately available to plants). There are enzymes, nematodes, humic acid, and other organic matter within them as well. Earthworm castings concentrate nutrients, which is why they are so popular with organic gardeners. They contain 10 times more potassium, 5 times more nitrogen, 7 times more phosphorus, 3 times more magnesium, 1.5 times more calcium, and 1.4 times more humus than the soil that went into the worm.
- Mycorrhizal fungi – “Do not add myco products prior to brewing. These fungi do not grow in tea solutions, although spores and hyphae will be extracted into the solution from the compost. The heating process during composting often kills the spores, so although present, they will not be viable. It is usually of some benefit to add an inoculum of mycorrhizal spores to the final tea solution when the tea is to be used for soil drench or root applications. The food resources present in tea may cause mycorrhizal spores to germinate after a few days, but if the germinated spores do not find active roots within 24 to 48 hours of germination, they will die. Therefore, spores should be added to the tea just before application to the crop, not at the beginning of a tea brew.” – Elaine Ingham
- You need to add foods to feed the bacteria and fungi so that they can grow when they have been extracted from the compost. Different foods feed bacteria and fungi. Bacteria prefer the simple sugars (molasses), whereas the fungus prefer more complex sugars/carbohydrates derived from various organic matter (fish hydrolysate and humic substances). Be sure to use the correct sugars/carbs for your brew. And, of course, putting too much food/ingredients in the water can keep the water from reaching the MINIMUM 8ppm level.
- Very Important! Add nothing with a preservative or antibiotic in it!
- If the compost tea foams excessively you can add a small amount of cooking oil.
- The finished compost tea should be used within 4-5 hours before the microbes use up all the oxygen and it goes anaerobic. If you cannot apply the tea for any reason, simply run the aerator for a few minutes every hour until the tea is applied. If applying bacterial or fungal additives follow the instructions on the pack.

Ingredient	Feeds	Ingredient	Feeds
Fish Emulsion	Bacteria	Kelp	Bacteria/Fungi
White Sugar	Bacteria	Rock Dusts	Bacteria/Fungi
Corn Syrup	Bacteria	Humic Acids	Bacteria/Fungi
Maple Syrup	Bacteria	Fish Hydrolysate	Fungi/Bacteria
Cane Sugar	Bacteria	Ground Oatmeal	Fungi
Molasses	Bacteria/Fungi	Yucca	Fungi
Fruit Pulp	Bacteria/Fungi	Soybean Meal	Fungi

All recipes below are based on 4 Gallons of water using a percentage of ingredients: 2.38% Grain Fed Worm Castings, 0.50% blackstrap molasses (use no more than 0.75%), 0.063% fish hydrolysate, 0.19%-0.25% (MAX) Kelp Meal, 0.063% soft rock phosphate powder (grind granules in a coffee grinder). *There is no guarantee* that your compost tea brewing will be successful using these recipes and ingredients. More details @ <http://www.microbeorganics.com/>

One trick you can use is pre-feeding or pre-activating Compost which is not so fresh by mixing in a small amount of wheat bran and moistening with very diluted black strap molasses, loosely covered with cloth or paper towel 24 hours ahead of starting brewing. (approximate ratios, ½ Tablespoon of wheat bran per cup of Compost.) Mix the Blackstrap Molasses at 1.5 ml to 1 quart of water prior to moistening. If you have bokashi, you can mix it at the same rate as the wheat bran, and moisten with water. This mixture is said to decrease the brewing times from 36 to 24 hours.

Believe it or not, the Basic, Starting-point and possibly the Balanced Nutrient Cycling Compost Tea recipe tea are likely the safest teas you can brew. The two simple recipes, if using an efficient tea maker and good quality compost will result in a microbial population perfect for growing with Nectar. This is not to say that the other recipes aren't beneficial, but without a microscope to verify, it's mostly a guessing game. You want the tea to have an earthy aroma, if it smells putrid with foul odors (signaling that the tea has gone anaerobic), then you will want to start over.

Basic, Starting-point, Bacterial Compost Tea (5 gal)

5 Gal bucket filled with 4 gallons of water to allow for foaming
1.5 cups of Grain Fed Worm Castings or high quality compost in a 400 micron bag so as not to clog the compost tea brewer.
2.5 ounce unsulfured Blackstrap Molasses

Brew for 24-36 Hours and no longer than 48 hours at ambient temperatures between 60 and 80 degrees F for optimal results. Use as is, or for additional benefits, at the end of the brew cycle, you can add Photosynthesis Plus or Mega Morpheus or SLF-100 or if desired, any other Nectar Nutrient.

Balanced Nutrient Cycling Compost Tea (5 gal)

5 Gal bucket filled with 4 gallons of water to allow for foaming
1.5 cups of Grain Fed Worm Castings or high quality compost in a 400 micron bag so as not to clog the compost tea brewer.
10 ml Neptune Harvest Hydrolyzed Fish Fertilizer
2 teaspoons Micronized (soft) Rock Phosphate *: Fungus attach to the rock phosphate and grow on it. Also a prime source for phosphorous, magnesium & sulfur.

*begin brewing, and check for extraction of the compost (brown color released into brew before adding molasses or kelps). Addition of kelp adds micronutrients and some bacterial as well as fungal food.

2.5 ounce unsulfured Blackstrap Molasses
2 to 2.5 Tablespoons Kelp Meal

Brew for 24-36 Hours and no longer than 48 hours at ambient temperatures between 60 and 80 degrees F for optimal results. Use as is, or for additional benefits, at the end of the brew cycle, you can add Photosynthesis Plus or Mega Morpheus or SLF-100 or if desired, any other Nectar Nutrient.

Ultimate Compost Tea (5 gal)

5 Gal bucket filled with 4 gallons of water to allow for foaming
1.5 cups of Grain Fed Worm Castings or Bu's Blend Biodynamic Compost or high quality compost in a 400 micron bag so as not to clog the compost tea brewer.
½ cup fungal-dominated compost (mushroom compost)
1.5 ounce unsulfured black-strap molasses
2 to 2.5 Tablespoons Down to Earth Kelp Meal
1 ounce Humic acids
10 ml Neptune Harvest Hydrolyzed Fish Fertilizer
2 teaspoons Micronized (soft) Rock Phosphate *: Fungus attach to the rock phosphate and grow on it. Also a prime source for phosphorous, magnesium & sulfur.

Brew for 24-36 Hours and no longer than 48 hours at ambient temperatures between 60 and 80 degrees F for optimal results. Use as is, or for additional benefits, at the end of the brew cycle, you can add Photosynthesis Plus or Mega Morpheus or SLF-100 or if desired, any other Nectar Nutrient.

Vegetative Stage Recipes**Veg Tea (Equal Ratio of Fungi to Bacteria) #1 (5 Gal)**

5 Gal bucket filled with 4 Gallons of water to allow for foaming
1.5 cups of Grain Fed Worm Castings or Bu's Blend Biodynamic Compost or high quality compost in a 400 micron bag so as not to clog the compost tea brewer.
10ml Humic acids
2 to 2.5 Tablespoons Down to Earth Kelp Meal

Brew for 24-36 Hours and no longer than 48 hours at ambient temperatures between 60 and 80 degrees F for optimal results. Use as is, or for additional benefits, at the end of the brew cycle, you can add Photosynthesis Plus or Mega Morpheus or SLF-100 or if desired, any other Nectar Nutrient.

Veg Tea #2 (5 Gal)

5 Gal bucket filled with 4 Gallons of water to allow for foaming
1.5 cups of Grain Fed Worm Castings
10 ml Neptune Harvest Hydrolyzed Fish Fertilizer
2.5 ounces unsulfured Blackstrap Molasses

Brew for 24-36 Hours and no longer than 48 hours at ambient temperatures between 60 and 80 degrees F for optimal results. Use as is, or for additional benefits, at the end of the brew cycle, you can add Photosynthesis Plus or Mega Morpheus or SLF-100 or if desired, any other Nectar Nutrient.

Veg Tea #3 – (5 Gal)

5 Gal bucket filled with 4 Gallons of water to allow for foaming
3 cups Alaska Humus Soil Amendment (Bountea, Ancient Forest, Denali Gold or other) in a 400 micron nylon mesh filter bag
10 ml Neptune Harvest Hydrolyzed Fish Fertilizer
100 ml of BioAg Ful-Power
2 to 2.5 Tablespoons Down to Earth Kelp Meal
2.5 ounces unsulfured Blackstrap Molasses

Brew for 24-36 Hours and no longer than 48 hours at ambient temperatures between 60 and 80 degrees F for optimal results. Use as is, or for additional benefits, at the end of the brew cycle, you can add Photosynthesis Plus or Mega Morpheus or SLF-100 or if desired, any other Nectar Nutrient.

Flowering Stage Recipes

Flower Tea #1 – (5 Gal)

1.5 cups of Grain Fed Worm Castings or Bu's Blend Biodynamic Compost or high quality compost in a 400 micron bag so as not to clog the compost tea brewer.

4 teaspoons High Phosphorous Fossilized Seabird Guano (0-9-0)

20 ml Poseidonzyme (liquid kelp) or 2 to 2.5 Tablespoons Down to Earth Kelp Meal

2 teaspoons Micronized (soft) Rock Phosphate

2.5 ounces unsulfured Black Strap Molasses

Brew for 24 - 30 Hours at between 60 and 80 degrees F for optimal results. If colder brew for 30-34 hours if warmer brew for 20-30 hours.

Use as is, or for additional benefits, at the end of the brew cycle, you can add SLF-100 or another input from the list of Instant Inoculants.

Flowering Tea #2 – Fungal Dominant (5 Gal)

5 Gal bucket filled with 4 Gallons of water to allow for foaming

3 cups Alaska Humus Soil Amendment (Bountea, Ancient Forest, Denali Gold or other) in a 400 micron nylon mesh filter bag

10 ml Neptune Harvest Hydrolyzed fish Fertilizer (2-4-1)

100 ml of BioAg Ful-Power

2 to 2.5 Tablespoons Kelp Meal

2.5 ounces unsulfured Blackstrap Molasses

¾ cup to 1 cup of Ground/Powdered, 100% Natural rolled oats.

Approximately 3 days prior to brewing, grow the fungi to give them a 'head start' and allow populations to multiply. To do this moisten the Alaska Humus (just damp, not dripping wet). Grind up some simple proteins (fungal foods), such as oatmeal, oat bran, soybean meal or powdered malt that has been run through a coffee grinder, and mix them in with the moistened compost. The mixed ratio should be about 3-4 Tablespoons of fungal food per cup of Humus. Place the mix in a light-resistant container, cover partially with a lid (leave it cracked at the very least so it's not airtight), and then place in a warm, dark area. A seed-germinating mat placed beneath the container will help this process along. After about 3 days at 80 F, you'll remove the lid, and find a good bit of fungal mycelia (Santa's Beard) throughout the compost. You can now use this compost to brew your fungal tea. Discontinue brewing around 24 hours. Very easy once you do it one time, and the plants love it.

Flowering Tea #3 (5 gal) – Fungal Dominant

1 cup of Grain Fed Worm Castings or Bu's Blend Biodynamic Compost or high quality compost in a 400 micron bag so as not to clog the compost tea brewer.

1 cup Mushroom Compost

3 to 4 ounces Ground/Powdered, 100% Natural rolled oats.

2 to 2.5 Tablespoons Down to Earth Kelp Meal.

2 teaspoons Micronized (soft) Rock Phosphate *: Fungus attach to the rock phosphate and grow on it. Also a prime source for phosphorous, magnesium & sulfur.

The earthworm castings, mushroom compost and kelp meal are first mixed together and made moist. Mix in the powdered/ground up oatmeal and after about 3 days at 80 F the fungal mycelia has grown on this blend and is ready for brewing. Place it in your tea bubbler for 24 hours with some additional liquid (or water soluble) kelp/seaweed extract and Micronized (soft) rock phosphate.

Nectar Teas (as a substitute for all of the above or when you need an instant ‘microbe bump’ tea)

*every 7 to 14 days

If you are not familiar with Aerated Teas and/or don’t have the equipment, you should be able to use one of the Nectar ‘microbe bump’ teas below or find a company that makes an Instant tea mix. If you don’t have a particular product in the recipe below, you may be able to skip the product, just don’t skip the inoculant.

List of Instant Inoculants

SLF-100 (South Cascade Organics)

Mycorrhizae (Xtreme Gardening Mykos or similar)

Azos (Xtreme Gardening Nitrogen fixing Bacteria or similar)

TM-7 (BioAg humic and fulvic acid, plus 7 Micronutrients)

Photosynthesis plus (Microbe Life)

Mammoth P (Growcentia)

Root Dip (Microbe Life)

Vegetable & Fruit Yield Enhancer (Microbe Life)

EM-1 (Teraganix)

Modern Microbes (themodern.farm)

Tim McCormick’s Instant Nectar Veg Tea

**Do NOT aerate, this is an instant tea and the amounts listed are per gallon*

5 ml Pegasus Potion

10 ml Athena’s Aminos

10 ml Gaia Mania

15 ml Herculean Harvest

10 ml The Kraken

10 ml Poseidonzime

pH the nutrient solution and then add an Instant Inoculant (**from the list of Inoculants*)

Question: Why no Persephone (calcium syrup) in the Instant veg tea?

“I just don't really see a need. They have plenty of food with that concoction. I believe they're just after energy, regardless if it's in a form of sugars or amino acids. Plus, plants will benefit from the Cal syrup in flower more so I just keep it in the tea the week before I flip and in flower.” – **Tim McCormick**

Tim McCormick's Instant Nectar Bloom Tea – 1x per week in Flower for all weeks until Ripening
Flush week

**Do NOT aerate, this is an instant tea and the amounts listed are per gallon*

15 ml Gaia Mania

30 ml Herculean Harvest

15 ml Persephone Palate

5 ml Triton's Trawl

10 ml Athena's Aminos

10 ml Poseidonzyme

pH the nutrient solution and then add an Instant Inoculant (**from the list of Inoculants*)

Misc Other Tea Recipes

Anaerobic Bokashi Tea (do not aerate) – (5 Gal)

Fill bucket with 5 gallons of water and add 1 2/3 cups of Bokashi (1/3 cup per gallon)

Add 2 tsp Blackstrap Molasses and then cover bucket with a cloth

Steep for 36-48 hours and then pour

Grain Fed Worm Castings and SLF Tea

Items needed:

- 2x 5 gallon buckets
- Dechlorinated water
- 15ml to 20ml SLF-100
- 1-2 cups of Grain Fed Worm Castings

Fill one bucket with 3 gallons of dechlorinated water (rain water or creek water works well).

**you may pH the water to 6.5, prior to performing the next steps if you are not comfortable with starting pH.*

Add 15-20ml of SLF-100 (approximately 2 capfuls of a quart size bottle of SLF-100)

Add from 1 to 2 cups of fresh Grain Fed Worm Castings in the other bucket.

Pour the water over the castings to mix them well and aerate the water.

Pour the water and castings back and forth at least 5 or 6 times.

The extract will have some solids left in the bottom of the bucket. That's OK. But if the solution sits for a while, the castings will begin to settle out. When this happens, just pour the mixture back and forth again a few times which keeps the extract aerated for the beneficial microbes. The extract stays good as long as you pour it back and forth every hour or so. It's best to use each batch the same day you make it.

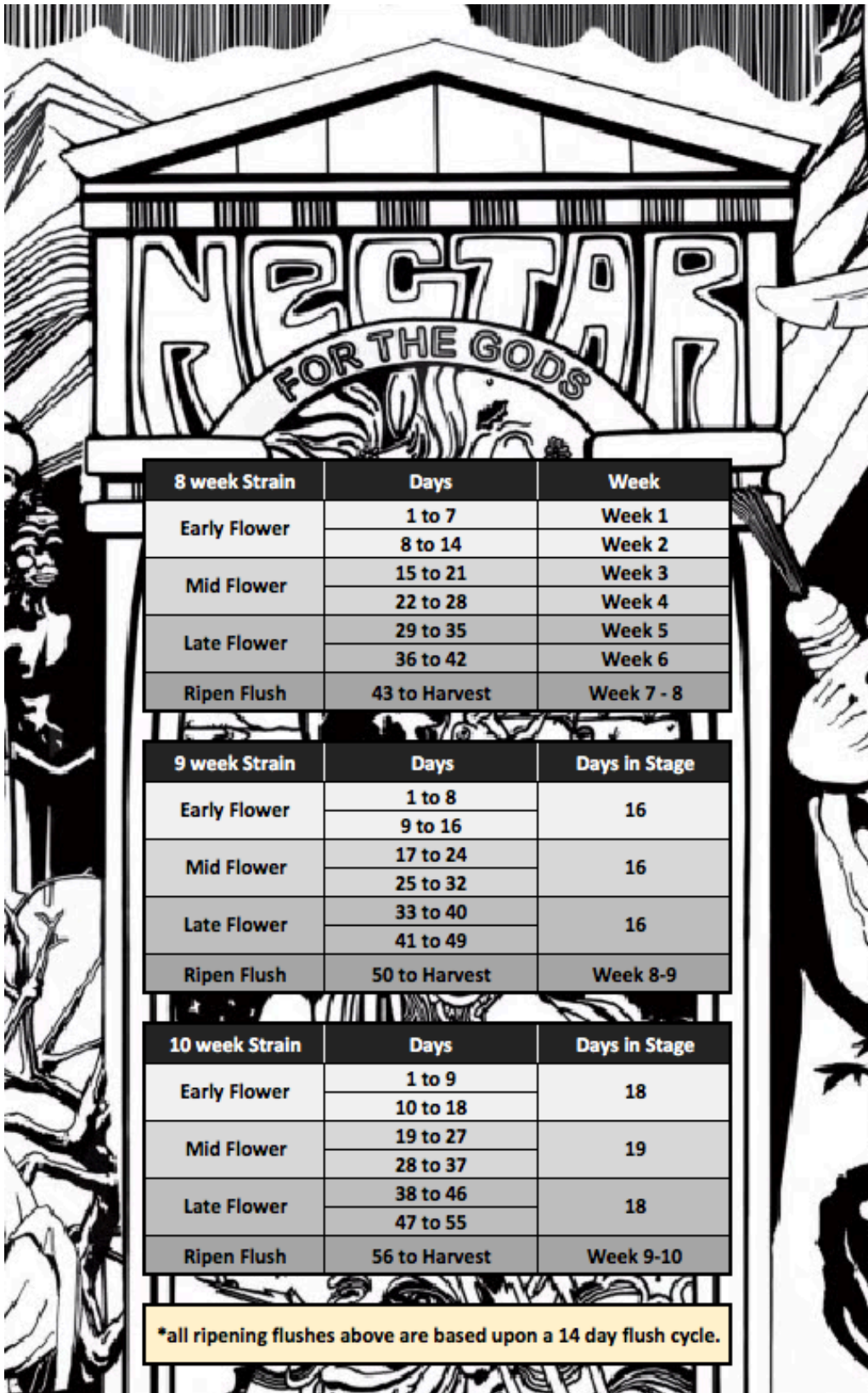
Use this mixture on your tea days or use a strainer of at least 400-micron mesh to filter for foliar spraying. If you don't strain prior to root drenching, stir the mixture constantly as you pour so that each pot gets its share of worm castings. Use the extract full strength when you water in new plants. If you are filtering, don't toss the leftover castings. You can top dress them to improve the texture and water retention qualities of soil.

"I use the SLF-100 when I'm soaking my castings tea for 24 hours. One thing is for certain when I use the SLF-100 water to do the rinses it seems to extract the humates and beneficial microbes more efficiently. The casting rinses alone though have been working great in foliar for years." ~ **Sean Bundy**

Growers Tea Notes:

Flowering Stage Chart

**this chart is NOT released by Oregon's Only or Nectar for the Gods. This chart was created by Bill Burns from the Nectar for the Gods Growers Group*



8 week Strain	Days	Week
Early Flower	1 to 7	Week 1
	8 to 14	Week 2
Mid Flower	15 to 21	Week 3
	22 to 28	Week 4
Late Flower	29 to 35	Week 5
	36 to 42	Week 6
Ripen Flush	43 to Harvest	Week 7 - 8

9 week Strain	Days	Days in Stage
Early Flower	1 to 8	16
	9 to 16	
Mid Flower	17 to 24	16
	25 to 32	
Late Flower	33 to 40	16
	41 to 49	
Ripen Flush	50 to Harvest	Week 8-9

10 week Strain	Days	Days in Stage
Early Flower	1 to 9	18
	10 to 18	
Mid Flower	19 to 27	19
	28 to 37	
Late Flower	38 to 46	18
	47 to 55	
Ripen Flush	56 to Harvest	Week 9-10

*all ripening flushes above are based upon a 14 day flush cycle.

Unofficial List of Supplements and Nutrients which 'play nicely' with Nectar for the Gods

****disclaimer: This list is in no particular order and Scott D. Ostrander has not given his blessing for us to list any of these companies as compatible or 'must have' with this line. These companies have simply been included in this list because they get the most traffic and quality feedback from fellow growers on the FB page. Just because these nutrients/supplements 'play nicely' with Nectar, doesn't mean that you should go out and purchase the entire list and go MAX feed on all, feeding every bottle with every feeding. If you are new to Nectar for the Gods, the best advice is to use Nectar with SLF-100. Once you become familiar with the line, find out what you might have been missing and browse this list for a beneficial addition to your garden.*

We at Oregon's Only (Nectar for the Gods) have the philosophy that if we don't make it, we don't bottle it. We have access to some great companies that manufacture great products, but we are not middle man marketers, instead we just like to promote those companies that work great with ours. (Scott D. Ostrander speaking about SLF-100, BioAg, Recharge and a handful of other companies that he directly recommends on the NFTG Growers Facebook page)

SLF-100 – Download the FREE Unofficial SLF-100 Guide from the NFTG Growers Page

OMRI listed. **SLF-100** is a living anaerobic bacteria that from my research and experience is designed to breakdown insoluble forms of calcium from the soil. Subsequently it also breaks down the gums that filter on the top of your containers when you ramp up the Herculean Harvest feed rates. They utilize *Bacillus thuringiensis* for its ability to break down nutrients and as an added side effect *thuringiensis* produces a crystalline protein that when ingested by the larvae of fungus gnats, cuts the gut of the larvae effectively killing it. In addition, the inoculants are designed to completely solubilize all forms of organic fertilizers from compost to bonemeal to feather meal to salt based fertilizers. SLF-100 is nothing like Hygrozyme and is in fact alive. It is currently being used in the remediation of calcium build up in oil pipelines and solids build up in waste water treatment, on a small scale.

MicrobeLife – Photosynthesis Plus Shelf stable for two years. Enhances plant functions at the foliar level and the root zone in both soil and soilless substrates. Enhances photosynthesis and biological function by allowing plants to capture and utilize radiant energy more efficiently. Speeds uptake and distribution of essential macro- and micro- nutrients required for all plant metabolic functions and growth. Promotes plant vigor and reduces input costs while increasing yields. May be used for indoor and outdoor with all soil and soilless media, including Coco Coir. Compatible with all fertilizer programs. Always check pH and CF levels. **Nourish-L** A unique, liquid conditioner derived from a highly decomposed organic humus deposit. Contains natural carbon made up of marine animal carbon and vegetative carbon compounds, making it more complex and superior to Leonardite sources as well as an amazing wealth of Cypress lignin—a high-level food source for the beneficial fungi and bacteria—which strengthens plant cell walls and enhances nutrient absorption and water-binding capabilities. 100% Verified Organic to USDA standards. Enhances the ability of plants to absorb nutrients more efficiently, optimizing plant functions and facilitates greater results using less nutrients. Aids in micronutrient uptake, increases water retention and provides vegetative humic acids. Supplements water, mineral, carbon and essential element requirements. Should be used with your regular nutrient and fertilizer program. Works with all growth media and soil.

RootDip Containing Ecto & Endo Mycorrhizal Fungi. Specifically created for foliar applications, root dips and root drenches, this supplement combines the high concentration of photosynthetic cultures with natural, rare earth humates and essential elements for improved plant biology. Enhances metabolism plus increases chlorophyll and nutrient availability. Works well with all nutrient/fertilizer programs and all soil and soilless media. **Vegetable & Fruit Yield Enhancer**

with Endo Mycorrhizal Fungi. A highly active and balanced blend of microbes and humic substances that combines photosynthetic cultures and essential elements. Formulated specifically to enhance the yield of vegetables and fruit by aiding the plant's ability to absorb nutrients more efficiently. Speeds seed germination, root development and shoot outgrowth. Additionally, it increases nutrient value, enhances overall plant vigor and yield. <https://www.microbelifehydro.com/>

Mammoth P – Growcentia - Organically derived microbial bio stimulants that unlock nutrients to maximize plant vigor and increase yield. The Mammoth product line supplements existing fertilizer programs and are compatible with all growth media from hydro to coco to soils. We screened billions of soil microbes using next-generation technology to identify a novel combination of bacteria that work in synergy to accelerate the release of phosphorous into plant available forms by 30x. MAMMOTH P™ is the first organically derived microbial inoculant that maximizes phosphorus and micronutrient cycling to maximize bud growth, increase yield and enhance plant health. <http://www.mammothmicrobes.com>

BioAg – FulPower Purified fulvic acid that maximizes plant potential. A must-have for all growers. Won't effect pH, or ppm and works in all systems. CLEAN and POWERFUL! Improves plant functions for better development of roots, flowers, flavors and fruits. Best use: Superior for indoor growing and all foliar sprays. Use on seeds/cuttings through flush! **Ful-Humix** - Concentrated humic /fulvic soluble powder. 1 lb of Ful-Humix = 1-2 gallons of competitor's liquids. Improves soil nutrient retention and uptake for strong, healthy plants! Best use: Regularly use in greenhouse and outdoor soils throughout season. Also, water into your compost pile. **TM-7**- Seven micronutrients critical for plant success, plus concentrated humic/fulvic powder for increased absorption and efficacy. Best use: Regularly use in greenhouse and outdoor and/or in compost tea. **CytoPlus** - All the benefits of seaweed and micronutrients enhanced by concentrated humic/fulvic powder. Best use: Especially beneficial for key transitional periods, such as vegetative to bloom. <http://bioag.com>

Cutting Edge Solutions – Great for foliar feeding. **Plant Amp™** (calcium) and **Mag Amped™** (magnesium). Mag Amped also works as a root drench if necessary. Mag-Amped is an organic magnesium and sulfur supplement derived from magnesium sulfate. Magnesium sulfate increases flower size and scent. May be used in soil, hydroponics and for foliar feeding. Mag-Amped is OMRI listed. A pure Magnesium chelate, which is easily assimilated by the plants. Magnesium is the primary element involved in chlorophyll production. Chlorophyll essentially equates to the source of a plants energy. Mag Amped amplifies the overall chlorophyll production in plants. Extra Magnesium helps plants produce chlorophyll in lower light situations (both in intensity and duration). Using Mag Amped in foggy, filtered, or low intensity light, as well as short duration light cycles, helps to enhance a plants chlorophyll and in turn, can boost the plants energy level. Plant AMP is OMRI listed calcium product and also registered with CDFA as an organic input material. Calcium is the basis of cell wall development in a plant and the organic Calcium in Plant AMP is extremely soluble, providing an easily utilized source of Calcium. Plant AMP can be used throughout the entire growth cycle to optimize a plants growth and is approved for organic food crop production. Plant AMP is also a fantastic foliar spray, it is very "clean" leaving no heavy build-up or residue on the plant. Plant AMP can also be used in conjunction with our full line of additives and base nutrients for custom foliar applications. If a gardener is starting with a low pH source water (typical of R/O water), we recommend adjusting to 7 before adding any fertilizers to the reservoir. <http://www.cuttingedgesolutions.com/>

Dragonfly Earth Medicine (D.E.M.) - Lush Roots 840 - A beneficial tea to enhance root growth and plant yields. A superior blend of EndoMycorrhizae (100,00 props./lb), Trichoderma, Beneficial Bacteria and our own special mix of Organic Herbs. **Brilliant Black** - Organic Alfalfa blended

with Micronized Humates and beneficial bacterias. A Replenishing and Restorative soil amendment for all stages of plant growth. **Radiant Green** - Ideal base nutrient. A Complete Organic Herbal and Bacteria Supplement that supports Ultimate Immune Health for your gardens. A Biostimulant that is good for every feeding during a plant's vegetative stage. The Quintessential brew and soil amendment. **Fat Flowers** - Fat Flowers is an organic, biostimulant, rhizo-tonic elixir for your garden. Dragonfly Earth Medicine has formulated a product that contains beneficial bacteria, a blend of organic herbs, sugar and Azomite. **Natural Mistik** - A 100% organic plant based and bacteria based foliar spray that gives instant nutrition to your plants while cleaning leaves of any unbeneficial pathogens. <http://www.dragonflyearthmedicine.com/>

EM-1® - EM-1 Microbial Inoculant is basically a liquid probiotic for the soil. The microbes introduced by EM•1® support the growth of other beneficial organisms including mycorrhizae, earth worms, and insects already in your soil and plants. Since it is not a fertilizer, you still need to use fertilizers. Microbes make the fertilizers work better and make them available for plants to use. EM•1® Microbial Inoculant is an excellent compost accelerator and we always encourage adding lots of compost for your plants! Since microbes convert organic matter to a usable food source for plants, fruits and vegetables will not only taste better, they will be more nutritious, and last longer. Beneficial microbes also produce lots of polysaccharides, glues that hold the soil together and hold in moisture, improving drought resistance. Applying EM•1 ® is very simple. For best results spray once per week throughout the growing season and pre-treat all your organic matter (potting soil, peat moss, compost, etc.) with EM•1® (this is also known as a root drench). We suggest one ounce per gallon (2 TBL) for all plants.

- Improves drought tolerance
- Restores the natural balance of healthy soil
- Naturally loosens compacted soil
- Improves seed germination and root development
- OMRI Listed
- Increases nutrient availability Improves plant quality: size, color, and shelf life
- Accelerates conversion of organic matter into soil humus
- Increases beneficial microbial activity

Full-On – by Grow Switch – Proprietary Nano-Based Biostimulant sets new levels of nutrient uptake and utilization. Boosts plants ability to efficiently convert nutrients into new cell growth. Reduces NPK Requirements by approximately 50%, lowering growing costs and reducing the environmental impact of fertilizers. Increased Yields. Flush cycles reduced from weeks to days Through a holistic and organic approach to horticulture, Grow Switch has created an entirely new nutrient technology that is revolutionizing growing AND changing the game when it comes to finished product. FULL ON is a major improvement to fruit quality that you have to taste to believe! Studies in 2012 have proven new ground-breaking levels of nutrient uptake and cell reproduction rates when used in conjunction with reduced levels of NPK-based fertilizers. Full On increases the Nutrient Density in plants and produce. This means that you will be using less resources and getting more bang for your buck the next growing cycle whether you're a commercial farmer or indoor garden hobbyist. <http://www.growswitch.com>

Xtreme Gardening - **CalCarb** is a readily available source of calcium and carbon dioxide. Calcium is critical to the health of your plant, contributing to the strength of cell membranes and regulation of nutrient use. Calcium is known to play a major role in the quality of many crops, including peppers, tomatoes, and watermelon. It is also able to reduce the effects of heat stress in plants. **CalCarb** foliar booster works great in both indoor and outdoor environments. **Mykos** helps new plantings, reducing transplant shock by stimulating root growth and making more nutrients

available. **Mykos** forms hyphae which increase the root mass resulting in more absorption of nutrients and moisture. The fungal network can transport nutrients over large distances and deliver them directly into the root cell. Plants supply **Mykos** with energy in the form of carbohydrates that are produced during photosynthesis. Individual plants are connected with other plants through this mycorrhizal network, and can share nutrients, sugars and water. Applied to the roots at the time of planting, bored down, top dress and deep water into the root zone of existing plants; **Mykos** creates a "sponge-like" mass around the root system helping roots pull up more nutrients and water! **Mykos** protects your plants against drought & heat stress. As well as keeping harmful pathogens from making root contact. **Mykos** can also improve the soil structure both in clay soil and sandy soil. **Mykos** also helps break down organic compounds and convert them into plant available plant food. **Mykos** has been used to break the last 9 World-Records for 'Xtreme plant growth, including a 2,230.5 lb. pumpkin in 2015! **Azos** is an all-natural, growth promoting, Nitrogen fixing bacteria ideal for cloning and transplanting. **Azos** converts nitrogen into a usable form that is readily available to the plant. Nitrogen is critical for forming vegetative matter and supporting abundant growth. **Azos** promotes growth, while boosting natural root development. <http://www.xtreme-gardening.com>

(more to be added as they are 'informally approved' by Nectar users)

General Guidelines and Chart for Slurry Test Results

Test	pH	ECx700 ppm	Suggestion	Reason
1	7.0	900	Flush with 2 Tbls/gal Herculean Harvest pH to 6.0	The pH and ppm are very high. There is enough food in the medium, however, the plant isn't accessing it. In order to correct the pH quickly, we split the difference. (6.0 pH to 7.0 pH is 1 pH total so half of that would be 0.5.) If you start with 7.0 pH and flush with 6.0 pH, in theory, by next slurry, you should be close to 6.5 pH in your medium. This is a good time to verify that you're using a diversity of beneficial bacteria/microbes for complete nutrient cycling to occur.
2	6.8	500	Flush with 2 Tbls/gal Herculean Harvest pH to 6.2	The pH is too high and the ppms are right at the high end. There is enough food in the medium, however, the plant isn't accessing all of it. In order to correct the pH quickly, we split the difference.
3	6.0	300	Flush with 2 Tbls/gal Gaia Mania and Olympus Up pH'd to 7.0	The pH is too low, and the ppms are right on the edge of low ppm slurry numbers. You can perform a Gaia flush to keep food available while flushing. Some growers even add Zeus. Once again, we're splitting the difference.
4	6.4	400	Feed, tea or maintenance 'reset' flush as normal	Keep doing whatever it is you're doing. This is a good slurry and generally shouldn't worry yourself with pH that is 0.1 off from perfect.
5	6.2	800	Flush with 2 Tbls/gal Herculean Harvest pH to 6.8	The pH is a little low and the ppms are too high. There is more than enough food in the medium, however, the plant isn't accessing it. In order to correct the pH quickly, we split the difference. This is a good time to verify that you're using a diversity of beneficial bacteria/microbes for complete nutrient cycling to occur.
6	5.8	900	Flush with 2 Tbls/gal Herculean Harvest pH to 7.0	The pH is too low for optimal calcium uptake and the ppms are way too high. There is more than enough food in the medium, however, the plant isn't accessing it. In order to correct the pH quickly, we split the difference. This is a good time to verify that you're using a diversity of beneficial bacteria/microbes for complete nutrient cycling to occur.
7	6.5	800	Flush with 2 Tbls/gal Herculean Harvest pH to 6.5	The pH is on point, however, the ppms are too high and could end up causing you problems soon (if they haven't already). This is a good time to verify that you're using a diversity of beneficial bacteria/microbes for complete nutrient cycling to occur.
8	6.3	180	Bump up your nutrient inputs and/ or feed frequency if your slurries are consistently low ppm.	The pH is a little low and the ppms are very low. The girls are starving. You can bump up the feeding ppm (more food) if you are experiencing consistently low ppm readings in your slurry tests. Begin to pH your nutrients to 6.7 - 6.8 prior to drench and regularly check slurries.
9	7.2	250	Feed nutrients at 6.0 pH	You have high pH and somewhat low ppm. Even if I get a very high pH slurry, I don't like to drop my feeds below 6.0, because calcium starts to become unavailable. As the pH continues to rise, all of the essential metal ions (iron, zinc, copper, manganese and nickel become unavailable. This may require multiple feedings to get your pH locked in.
10	6.4	100	Feed normal feeding or bump up your nutrient inputs and/or increase your feeding frequency if your slurries are consistently low on ppm.	The pH is on point, however the ppms are very low. The girls are starving and more than likely show it before a slurry test. You can bump up the feedings if this is a consistently low ppm reading in your slurry tests. If you are giving plain water on feed days, we suggest you add some nutrients instead.