



# Gardens, Plants, Trees, Shrubs

ECO Lawn and Garden | P.O. Box 1226 | Burnsville | MN | 55337 | (952) 882-8572

Following are tips and programs for caring for almost any type of plant. Feel free to contact us with your questions. We're excited to have you interested in our products - used extensively by golf course and gardening professionals. If you have questions or would like to contact us please visit us at [www.ecolawnandgarden.com](http://www.ecolawnandgarden.com) or email us at [info@ecolawnandgarden.com](mailto:info@ecolawnandgarden.com).

## General Information

Plants have the same needs as that of humans. Plants, like all living creatures, were developed by nature to receive and utilize basic elements to function and complete their life cycle. These basic functions and requirements include, an emergence from seed, growth stage, a balanced nutritional diet with water, air and sunlight throughout their life-cycle and then they need maturity to develop their fruit, all within a healthy sustaining environment.

Plants require, from a nutritional standpoint, a well-balanced diet applied in the right proportions at their different growth stages. If plants do not receive this at the critical stages of their development, they are more susceptible to diseases and insect attacks and will become sick and possibly die prematurely.

University studies have shown that unhealthy weaker plants with low brix (sugar) readings are more prone to disease and insect attacks than that of healthy plants. Incomplete or low grade NPK fertilizer application can weaken a plant's immune system resulting in a lower survival rate during stressful conditions, such as abnormal climatic and/or temperature conditions, during transplanting and throughout out each stage of the plant's life cycle.

We all know that if our human body does not get the right nutrients and vitamins in the right proportions, we would not feel or operate efficiently and we would be sick more often.

Plants have tiny mouth openings under the leaf called the stomata. It is used to exhale and inhale but also to take in nutrients, right where the plants need it the most, in their vascular system. This is where a good quality foliar nutrient is needed.

A healthy plant after a foliar spray releases Hydrogen ions and CO<sub>2</sub> through the roots into the soil. The positively charged hydrogen ion combines with a negatively charged soil colloid particle releasing another element for the roots to pick up. This benefits the plant as well.

## The ECO Lawn and Garden Method

Our manufacturer along with ECO Lawn and Garden has developed a series of foliar spray products to feed the plant via foliar spraying throughout the crop's (plant) life cycle. We have developed our products with a superior edge over the competition. We have added bio-stimulants to each of our hot mix homogenized NPK formulations. Our manufacturer uses only natural nontoxic food grade raw materials in our products.

The standard in our manufacturing process is to go through a series of control steps to accomplish our end result. With each step we carefully monitor and do quality control tests to ensure that at all times the customer receives the highest quality product, purchase after purchase.

Quality checks are done during formulation as safeguards. Last a final test is done to ensure the product meets our standards of analysis and quality. After our random intermediate checks during its manufacture to completion, we do a final test to check to ensure it meets our standards for analysis and quality.

Our manufacturer has taken the industry into the future through its quality control testing of our products. With these inspections we always guarantee the customer a uniform high quality product. Our biological NPK's includes a compliment of Fish, Seaweed, Humic Acids, Vitamins B-1, B-12, growth promoters, regulators and Molasses. Each contains trace elements such as Boron, Iron, Zinc, Cobalt, Copper, Manganese, Molybdenum, and Sulfur.

Each NPK is specially developed for a different stage in the plants life cycle. Similar to humans who need different diets at different stages in their life cycle. We emphasize changing your spray formulation at each cycle. Each cycle in the plant life is different from growth to bloom to fruiting. Therefore it needs more or less different elements to complete its job at each cycle. Plant growth energies can be divided into two separate parts during its life cycle.

**ANIONIC** In this stage the plant is in the growth mode. It starts from the time the plant emerges from the seed to the point where the plant has matured or begins to flower. Higher Nitrogen is needed to aid the plant in this stage.

**(N) NITROGEN - GROWTH STAGE (Use 10-8-8, 12-0-12, 16-4-8 )** Young plants need growth right up until maturity, which is usually just before blooming, or bud initiation stage. The plants at this stage need a higher NITROGEN NPK. The Nitrogen element is needed for growth, along with a proportionate combination of PHOSPHORUS and POTASSIUM. By supplying the plant with extra nitrogen via foliar sprays you are helping the plant in growth by supplying that extra nitrogen. This can mean quicker blooming and healthier plants.

**CATIONIC:** In this stage of the plant life from flowering to harvest, the plant is in the production mode.

**(P) PHOSPHORUS PRODUCTION STAGE (Use 6-14-6)** Once your plants have started to produce buds or blooms you have a plant that is matured and is ready for the production of your crop. This is where we change from higher nitrogen to a higher PHOSPHATE product. The idea being is not to allow your fruit coming from the blossoms to grow too fast with high nitrogen.

You want to be more concerned at this stage to form a fruit that contains higher pound solids and more body. Phosphate will supply the cells that are being formed at this stage to fill in with body, giving more weight and mineral value. Too much Nitrogen at this stage will just make the cells grow and not form the body or mineral content,

making the produce sour and shorten the shelf life. The right concentration of Nitrogen PHOSPHORUS and potash is needed to give a complete balance in this stage.

**(P&K) PHOSPHORUS AND POTASSIUM LATE GROWTH STAGE (Use [3-18-18](#))** Once your plants have produced fruit and that fruit has formed and begins to grow or mature, high POTASSIUM (Potash) and PHOSPHORUS is needed with just the right combination of nitrogen to allow a good balance. This will help build quality in your crop. Once you place all these sprays together in an ECO Lawn and Garden program, you can, with the right environmental conditions shorten the growing time of your crop from planting to harvest. The end result is more, better health, better taste, better color, longer shelf life, and greater yields.

## Application Instructions

[PDF Printable Version](#)

### NPK Fertilization

### **ECO 10-8-8 or 12-0-12 or 16-4-8 Growth Stage - Before Blossoms**

**Gardens:** Mix 1-2 oz. per gallon of water. Spray with sprayer per instructions in Lawn Tips. Spray leaves every 10 days. Or apply with a watering can with the same mixture. Water root zone with enough water to soak the root zone.

**Potted Plants/Shrubs/Trees:** Mix 2 oz. for plants 3 oz for shrubs and trees per gallon of water. Apply during plants growth stage (before flowering) Water plant with fertilizer mix around root zone of existing potted plants, shrubs and trees. Water in just enough to soak the root zone ( about 4 inches)

**House plants:** Apply 2 tablespoons per gallon of water. Water as normal around base of plant or foliar spray weekly.

### **ECO 6-14-6 Phosphorus Production Stage -Blossom Stage**

**Gardens:** Mix 1-2 oz. per gallon of water. Spray with sprayer per instructions in Lawn Tips. Spray leaves every 10 days. Or apply with a watering can with the same mixture. Water root zone with enough water to soak the root zone.

**Potted Plants/Shrubs/Trees:** Mix 2 oz. for plants 3 oz for shrubs and trees per gallon

of water. Apply during plants growth stage (before flowering) Water plant with fertilizer mix around root zone of existing potted plants, shrubs and trees. Water in just enough to soak the root zone ( about 4 inches)

**House plants:** Apply 2 tablespoons per gallon of water. Water as normal around base of plant or foliar spray weekly.

## **ECO 3-18-18 Phosphorus and Potassium Late Growth Stage - After fruit or vegetable has started to grow.**

**Gardens:** Mix 1-2 oz. per gallon of water. Spray with sprayer per instructions in Lawn Tips. Spray leaves every 10 days. Or apply with a watering can with the same mixture. Water root zone with enough water to soak the root zone.

**Potted Plants/Shrubs/Trees:** Mix 2 oz. for plants 3 oz for shrubs and trees per gallon of water. Apply during plants growth stage (before flowering) Water plant with fertilizer mix around root zone of existing potted plants, shrubs and trees. Water in just enough to soak the root zone ( about 4 inches)

**House plants:** Apply 2 tablespoons per gallon of water. Water as normal around base of plant or foliar spray weekly

**ECO Fish Emulsion:** This product is an excellent natural fertilizer that can be used to supllment the other ECO Lawn and Garden programs.

**Ornamental and Young Plants:** Foliar Application: Mix 1 tablespoon ECO Fish Emulsion with 1 quart of water. Mosten both sides of leaves only to the point of run off. Use misting spray bottle to apply. Repeat every 7-10 days and at least once after bud set.

**Soil Application:** Mix 1-2 oz ECO Fish Emulsion to each gallon of water. Water plant minimally once a week with this solution.

**Gardens/Young Trees/ and Hardy Plants:** Mix 1-2 oz. ECO Fish Emulstion to each 1 gallon of water. Moisten both sides of the leaves only to the point of run-off. Use misting spray bottle or pump up sprayer to apply. Repeat every 7-10 days or as needed.

**Lawns and Hardy Trees:** Apply 1 quart per 4000 square feet with hose end sprayer, covering trees and base with spray. Set dial at 2 oz. per gallon. Apply every 3-5 weeks as needed.

## **Soil Conditioning**

The soil conditioners that are recommended for your lawn will also work as a conditioner for your gardens, shrubs, trees, and plants.

## **Soil Amend /Soil Amend Plus**

**Apply either of these products to improve the soil to buffer high salts and pH, loosen the soil and improve nutrient uptake. Will create a soil with more humus.**

**Gardens, Trees and Shrubs:** Apply 1-2 ounces of Soil Amend or Soil Amend Plus per gallon. Apply every 1-2 months for general maintenance. Apply spring and fall once soil has improved to your satisfaction.

**New Bed Formation:** Before planting- Apply at 1-2 ounces gallon. Pour evenly onto soil to be planted. Till into the soil or water in well.

**House plants/Greenhouse/Hydroponics:** Soil Amend is an excellent, non-burning plant fertilizer that can also be used on house plants, in greenhouses and in hydroponic systems. You may find that it brings about rooting, top growth and blooms that you've never experienced before. Apply at 1/2 teaspoon per 1 quart of water every 1-2 weeks.

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