

# AGGRAND<sup>®</sup>

## Natural Fertilizer 4-3-3

*Proven Performance through  
Natural & Organic Ingredients*

### *Product Description*

AGGRAND Natural Fertilizer 4-3-3 (NOF) is a multi-purpose liquid concentrate formulated to promote vigorous growth, increased root development and improved stress and disease tolerance on flowers, vegetables, fruits, lawns, shrubs, trees, field crops and houseplants. In addition to stimulating microbial activity in the soil, it provides nitrogen (N), phosphorus (P) and potassium (K) in a ratio of 4-3-3. AGGRAND Natural Fertilizer is the ideal product for those seeking a natural fertilizer that demonstrates superior results.

### *All-Natural Sea Kelp*

AGGRAND Natural Fertilizer uses kelp concentrate from the icy waters of the North Atlantic Ocean. Kelp accumulates high levels of plant-growth hormones, nutrients, amino acids, micronutrients and potassium. When used as a fertilizer, it increases plant health by enhancing heat, drought and cold tolerance properties. It also supplies nitrogen, sulfur (S), magnesium (Mg), calcium (Ca), iron (Fe), copper (Cu), zinc (Zn), manganese (Mn), boron (B), sodium (Na) and carbohydrates.

### *Organic Nitrogen Source*

AGGRAND Natural Fertilizer is made from oceangoing menhaden fish that feed on mineral-rich plankton. Though not considered edible for humans, Native Americans have used menhaden for centuries as a natural fertilizer, calling it “munna whaleaug,” or “that which manures.” Menhaden provides nitrogen, phosphorus, potassium, 10 essential micronutrients and numerous vitamins and amino acids. Menhaden fish emulsions represent the primary source of nitrogen in AGGRAND Natural Fertilizer.



- **Multi-purpose – excellent results on flowers, fruits, vegetables, lawns, trees, crops and houseplants**
- **Formulated for foliar feed or soil application**
- **Promotes enhanced plant vigor, contributing to disease and stress resistance**
- **Convenient liquid concentrate**
- **Can be mixed with other AGGRAND products for easy application**



## Balanced Formula

While menhaden fish emulsions and kelp provide the basis for AGGRAND Natural Fertilizer, additional ingredients are added to achieve a balanced analysis.

- **Brown Sugar** - Carbon source made from fresh cane sugar with molasses added that feeds soil biology and enhances foliar applications
- **Natural Wintergreen Oil** - Improves scent of AGGRAND Natural Fertilizer
- **Sulfate of Potash** - Extremely fine-grade natural mineral derived from the Great Salt Lake increases potassium levels
- **Bloodmeal** - Boosts availability of nitrogen in slow-release form to provide this vital nutrient as the plant requires it
- **Fulvic Acid** - Natural material derived from Leonardite shale enhances foliar applications and chelates minerals for increased plant availability
- **Vitamin B1** - Natural vitamin supplement increases plant health

## Increased Microbial Activity

AGGRAND Natural Fertilizer increases bacterial activity in soil, leading to stronger, healthier plants. Aerobic microorganisms such as bacteria, fungi and protozoa feed on carbon sources, causing a process known as mineralization. Mineralization produces plant-available nitrogen and phosphorus that helps plants grow and develop.

To determine the amount of bacterial activity in soil, the carbon dioxide (CO<sub>2</sub>) produced by microorganisms is measured. Higher levels indicate more bacterial activity, hence more potential nitrogen and phosphorus available to plants.

Although chemical-based fertilizers have high nitrogen, phosphorus and potassium levels, plant-use efficiency can

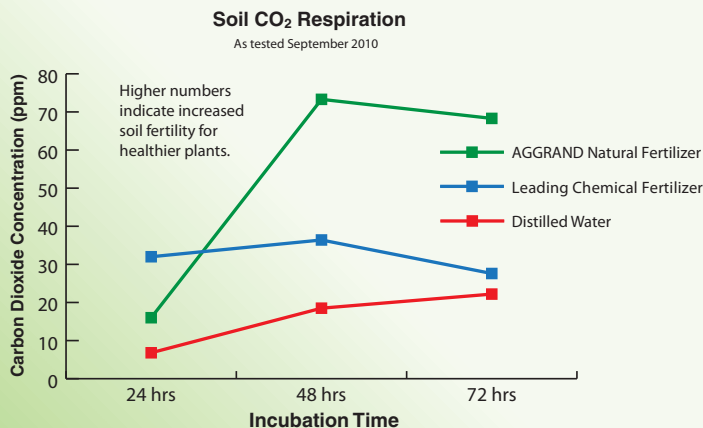
be very low. In addition, they are often high in soluble salts that are toxic to soil bacteria and help create compaction and nitrification conditions, resulting in plant stress. Research shows soil treated with AGGRAND Natural Fertilizer demonstrates increased CO<sub>2</sub> levels compared to a leading chemical fertilizer, meaning increased bacterial activity for healthier plants (see graph).

## Applications

AGGRAND Natural Fertilizer 4-3-3 is recommended for, but not limited to, the following crops:

- Apples
- Beans
- Bedding Plants
- Berries
- Cabbage
- Citrus Fruits
- Corn
- Cotton
- Cucumbers
- Deep-Root Plants
- Field Tomatoes
- Garlic
- Golf Courses
- Greenhouse Tomatoes
- Hay and Pasture Fields
- Herbs
- Lawns
- Potatoes
- Rice (Wetland)
- Wheat and Small Grains

Application rates vary according to plant/crop type, soil condition and weather conditions. Consult the AGGRAND Crop Guide (G2793) or [www.aggrand.com](http://www.aggrand.com) for additional application information.



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Referral # \_\_\_\_\_