

Tests Prove Efficacy of AGGRAND Natural Fertilizer

Farmers have used an increasing amount of conventional fertilizer since the end of World War II. Initially, huge yield increases were realized, but over the last few decades, yields have leveled out and, in some cases, declined despite numerous advances in seeds, pesticides and equipment.

With increased consumer concern about residues and hazardous run-off combined with tougher government regulations, farmers have begun using more natural fertilizer products. Most of these products are incorporated into their existing practices and they report many benefits from their use.

Replicated research trials and actual field use trials conducted on AGGRAND Natural Fertilizer 4-3-3 were used to determine the effects of AGGRAND when incorporated into crop production systems in the following areas:



1. Seed germination
2. Plant growth stimulation
3. Disease suppression
4. Yields

- AGGRAND applied in the amount of two gallons per acre in the furrow increased the size of soybean plants compared to traditional treatments. There was a yield increase of five bushels per acre where AGGRAND was used.

- Lab tests showed that where AGGRAND was added to the soil, there was a significant reduction in verticillium dahliae microsclerotia (MS). Field trials (tomatoes) showed that incorporating AGGRAND in a weekly one percent foliar spray solution resulted in a 51 percent increase in total yield.
- A tomato farmer included AGGRAND Natural Fertilizer in his transplant solution (two percent) and added two foliar sprays of one gallon per spray. The AGGRAND-treated portion of his field yielded four additional tons per acre.
- Under severe disease pressure, AGGRAND treated peppers showed reduced incidence of disease and significantly increased total yield.
- Tests conducted to measure the effects of AGGRAND on suppressing and/or controlling seedling diseases demonstrated the following:
 1. Increasing the rate of AGGRAND increased disease control.
 2. Increasing the rate of AGGRAND provided the required nutritional needs of the plant.
 3. Increasing the incubation time of AGGRAND in the planting medium increased disease control.



4. In all treatments at all time frames, AGGRAND clearly outperformed conventional fertilizer alone.

AGGRAND Natural Fertilizer is an emulsion, made from 100 percent whole menhaden fish. Its nitrogen is derived from protein. The product also contains key amino acids that have been recognized to benefit plant growth in the areas of seed germination, plant growth stimulation and disease suppression

In addition to the original goals of the tests that were conducted, the researchers noted the following observations:

1. Some tests showed increases in the soil's ability to retain nutrients where AGGRAND was used.
2. Changes in soil acidity were measured in the Ontario trials.
3. Better cell membrane permeability was noted in two rate study trials, both in root cells and leaf tissue.

These different tests suggest that the benefits measured in these trials exceed what would be expected from a fertilizer product alone. They further suggest that AGGRAND positively affects the plant in at least three different modes of action.

