

Unraveling the Mystery of Fertilizer Numbers

27-3-3, 6-12-0, 8-8-8, 4-3-3. Fertilizer numbers are becoming more and more confusing as an increasing array of chemicals, designed to solve every agricultural problem, floods the market. What do these fertilizer numbers mean? What should they mean to the farmer or gardener seeking to increase yield and reduce the use of chemicals?

The numbers expressed on the label of a fertilizer are called the grade. The numbers refer to the amount of nitrogen, phosphorus and potassium (known as NPK) contained in the product. For example, 8-8-8 signifies that the fertilizer contains eight percent nitrogen (N), eight percent phosphorus (P) and eight percent potassium (K) by weight. So 100 pounds of an 8-8-8 fertilizer would contain eight pounds each of nitrogen, phosphorus and potassium.

AGGRAND Natural Fertilizer 4-3-3, like chemical-free products, is considered a “low analysis” fertilizer. Its guaranteed analysis provides that it contains four percent nitrogen (N), three percent phosphorus (P) and three percent potassium (K). AGGRAND Natural Fertilizer’s analysis is based on the fact that it contains absolutely no chemicals, which are normally added to boost the NPK level of a product. Does this mean AGGRAND Natural Fertilizer is less effective than a chemical fertilizer with a larger NPK designation? Absolutely not. In fact, testing has demonstrated that AGGRAND Natural Fertilizer is more effective than the chemical fertilizers it has been tested against.

What does this mean? To gain some insight into the origin of the “numbers complex,” it is valuable to look back on the evolution of agricultural research.

Agriculturalists once believed that plants literally “ate” the soil. But Justus von Liebig in the early nine-



teenth century planted the seed of radical change in the agriculture world. Among the discoveries backed by his chemical laboratory was the fact that plants merely extract certain substances from the soil, particularly nitrogen, phosphorus and potassium (Richard W. Langer, *Grow It!*, 1972).

From Liebig’s new theory there were several corollaries to be drawn, and the nineteenth-century assault on traditional agriculture was soon in full swing. They learned that if you added enough of the right chemicals, you could even grow a bumper crop in sand or a water solution. After World War II, the chemical industry rose to the challenge (Langer, *Grow It!*).

Chemical fertilizers alone were suddenly deemed essential ingredients of agriculture. No heed was paid any longer to the tilth, or physical quality, of the soil. If the corn isn’t growing just add more chemicals, they thought. But as more chemicals were added over the years, the organic quality of the soil was lost. Once rich, friable earth was turned into hardpan. The essential chemical ingredients were there, but high crop yields weren’t. Why did this happen? Because you can’t grow abundance on asphalt (Langer, *Grow It!*).

Finally, in the past few decades, agriculturalists have rediscovered soil; good, natural, organic earth, the way it used to be, and the natural cycle that nourishes it.



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But now many organic, chemical-free growers suffer from a “number complex.” An expert told them to use 8-8-8, so they struggle to match that grade with organic fertilizer rather than chemicals. In addition to this problem, there are other disadvantages (Robert Rodale, *The Basic Book of Organic Gardening*, 1971).

It is often difficult to equate the organic rationale with the chemical one. The result may be that the “new” organic method is difficult or confusing.

Perhaps the most common problem is that a lot of organic gardeners and farmers make the big mistake of not using organic fertilizers heavily enough on their first application. Chemical companies with a new expensive mix or super blend may advise applying at the rate of 200 pounds per acre, or a pound or two for the whole vegetable garden. Then when the organic grower wants to convert, he still thinks in terms of such applications.

The best advice is to forget about the numbers and concentrate on a long-range fertilizing program. Once this is begun, the result will be better, healthier plants and higher yields.



AGGRAND Natural Fertilizer 4-3-3 is the first step on the road to a long-range, comprehensive fertilizer plan resulting in stronger, more disease resistant plants, increased soil fertility and greater harvests.