

Manufacturers and distributors of synthetic fertilizers have long perpetuated the idea that plants cannot tell the difference between organic nitrogen and synthetic nitrogen. Their reasoning is there is no reason to use organic fertilizer when the synthetic nitrogen is less costly per unit of nitrogen. To some degree this line of reasoning is correct. In order for a plant to be able to use nitrogen it must be in either the nitrate form or the ammoniacal form. Synthetic fertilizers supply nitrogen in these two forms and it is directly available to the plant. The nitrogen in an organic product like Nature Safe must be broken down by the soil microbes into ammoniacal or nitrate forms. By the time the plant uses it, Nature Safe's nitrogen is no different than synthetic nitrogen.

If the form of nitrogen used by the plant were the end of the story, there would probably not be much reason to use Nature Safe in place of synthetic sources. However, this is just the beginning of the story, not the end. The rest of the story is all about what happened in the soil while the rich supply of amino acids contained in Nature Safe were being converted into nutrients that are usable by the plant.

While the turf manager may ultimately be getting the same nitrogen in both synthetic products and Nature Safe, he is not getting the other tremendous benefits of using Nature Safe. Of course, he will get the even, controlled growth with no growth surges from Nature Safe, but there's more than just predictable growth happening. One of the major benefits of using Nature Safe is a deeper, more fibrous root system. This is due to the rich supply of chelated calcium from bone meal that promotes the elongation and branching of roots, allowing the plant to make better use of the nutrients and water that is available.

In addition, many of the soil microbes that are being fed by Nature Safe tend to congregate in an area around the roots known as the rhizosphere. These microbes, such as bacteria, actinomycetes and fungi are able to protect themselves by emitting natural antibiotics that repel or kill their enemies. You have undoubtedly heard of some of these antibiotics because they are manufactured commercially for human use. They include penicillin, streptomycin, aureomycin, terramycin, chloromycetin and tetracycline. These same antibiotics will also repel or kill many of the soil borne pathogens that might attack the roots of the plant. Sometimes the damage caused to the roots is classified as sub clinical because it does not do enough damage to cause visual symptoms, but it does weaken the plant and put it under more stress. This stress, coupled with the stress the plant is under from numerous other factors, can sometimes be enough to do major damage. A food source like Nature Safe that is rich in amino acids will cause a huge increase in the populations of beneficial microbes, which in turn offers increased protection to the roots.

Nature Safe also has a very low salt index and a lower salt content in the soil reduces the plant's need for water. It doesn't take much imagination to figure out that a plant with deep, fibrous, healthy roots growing in a low salt environment will be able to withstand the rigors of summer stress much better.

The population explosion of beneficial microbes also plays a major role in the suppression of many foliar turf diseases. Diseases such as Dollar Spot, Brown Patch and Necrotic Ring Spot, just to name a few, can all be significantly reduced with regular use of Nature Safe. It will not eliminate the need for fungicides, but it will extend the windows between spray applications and increase the efficacy of the chemical. The end result is healthier turf and lower chemical costs. The same explosion of beneficial soil microbes also help to reduce localized dry spots and thatch

One benefit of using Nature Safe on a regular basis that is often overlooked is the increase in the quality of turf grown in a semi-shaded environment. This is due to an increase in the amount of carbon dioxide that is given off by the microbe population and used in the photosynthetic process by the plant. The extra CO² allows the plant to make more food during the time it has sunlight and this extra food helps it to make it through the non-sunlit hours without eating into its stored reserves. This helps to produce better turf in shaded areas. Of course some of the CO² combines with soil water to form carbonic acid which helps to increase the solubility of some of the minerals that would not otherwise be available to the plant.

While plants may not know the difference between Nature Safe nitrogen and synthetic nitrogen, professional turf managers can tell the difference in the health, density and survivability of their turf in a relatively short period of time.