

Nature Safe[®] research

University research data

Plant response comparison of an organic versus inorganic nitrogen source

Test conducted by:

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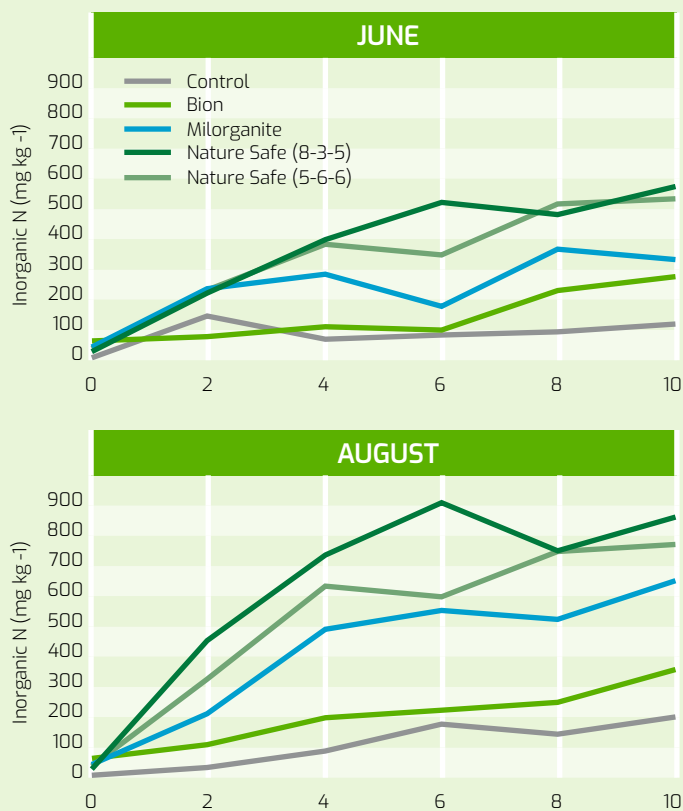
Introduction and procedures

The objective of this study was to compare turf responses from various N sources versus inorganic N sources under field conditions. Studies were conducted on Tifway Bermudagrass maintained at 33mm. Turf was fertilized at rates of 50 kg N ha (1 pound N per 1000 sq. ft. and 2 pounds N per 1000 sq. ft.). Products were applied on April 26, 2001. Turf quality ratings were taken every two weeks for a 10 week period. Products tested were NS 8-3-5, NS 5-6-6, Milorganite, Bion, Urea, Polymer Coat Urea (PCU) and Ammonium Nitrate. Quality ratings were based on a scale of 1-9 with 5 being commercially acceptable and 9 being dark green ideal turf.

Test results

Plots amended with NS had similar turf quality ratings as compared to inorganic N materials. Products constructed of undigested proteins (meat meal, blood meal, feather meal and fish meal), released N faster and more consistently than materials that had gone through previous digestion (i.e. human and animal waste). NS applied at 100 kg N ha did not cause fertilizer burn and provided acceptable turf quality for up to 10 weeks.

Turf fertilized at 50 kg N ha demonstrated increasing turf quality values during the first six weeks while plots receiving 100 kg N ha exhibited higher turf quality values for the total 10 weeks. Urea and ammonium nitrate did produce initial burn at the high rate.



Conclusion

Nature Safe organic fertilizers provided turf quality equivalent to the other selected fertilizers at both N rates for the duration of the 10 week study. Nature Safe applied at heavier rates can last longer with out the fear of initial burn. This can be an excellent management tool for today's turf manager. The increased length of turf quality can offset higher initial cost of the organic fertilizer.