

TurfGrass TRENDS



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Phosphorus Usage by Turfgrasses The Energy Nutrient Often Neglected by Turf Managers

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Of the three general fertilizer nutrients, nitrogen (N), phosphorus (P) and potassium (K), phosphorus is often the least understood and the most neglected. While the N and K content of grass leaves is about 3-4% of their dry weight, that of P is only one-tenth as much at 0.3-0.4% (Turner and Hummel 1992). This lower quantity in plant tissues and the fact that obvious P deficiencies are almost never observed in turf may contribute to its lesser standing among many turf managers. However, few nutrient elements play a more pivotal role in the metabolic processes of all living organisms including turfgrasses. In this article, the second in a series on turfgrass nutrients, I will outline some of those important functions performed by P and show how they

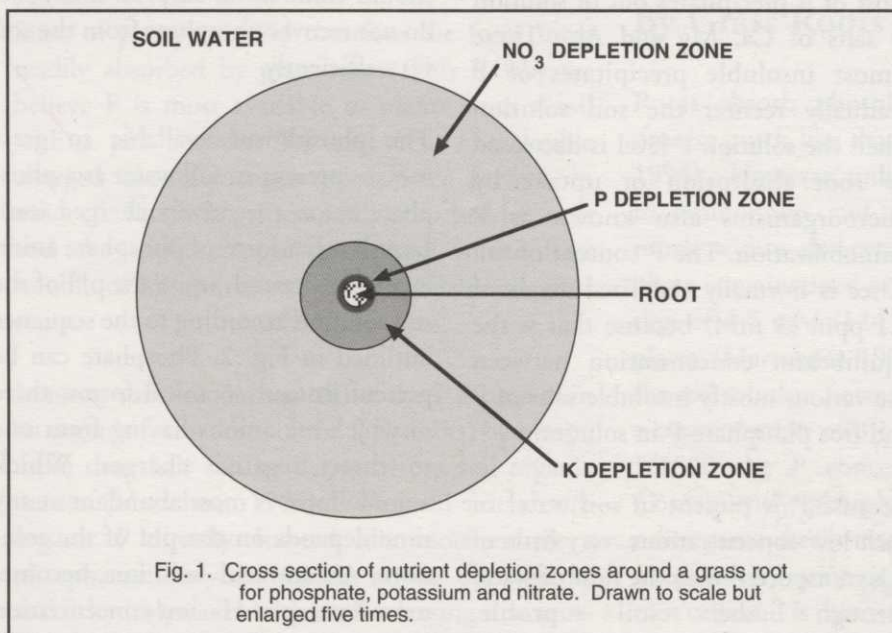


Fig. 1. Cross section of nutrient depletion zones around a grass root for phosphate, potassium and nitrate. Drawn to scale but enlarged five times.

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