Effect of Low Foliar Rates of Applied Phosphorus on Wheat Grain Yield . (S04-raun101227-Oral)

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Abstract:

Historically, in order to adjust crop P deficiencies, all fertilizer P was applied preplant due to its soil immobility. Application of foliar P mid-season may allow producers an alternative method of managing moderately P deficient soils without decreasing wheat grain yields. The objectives of this study were to determine whether foliar P applications could increase cereal grain yields, and to determine the appropriate rates required for maximizing yields. Three experimental sites were established at Perkins, Lake Carl Blackwell, and Lahoma, Oklahoma in the fall of 2001. Rates of foliar P evaluated included 1, 2, and 4 kg P/ha as KH2PO4 with (30 kg P/ha) and without preplant P. Foliar applied P at 2 kg/ha without preplant P increased grain yield by 486 kg/ha at Lahoma. Foliar P slightly increased yields at Perkins when no preplant P was applied, but yield levels were still below that of treatments where preplant P was observed.

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