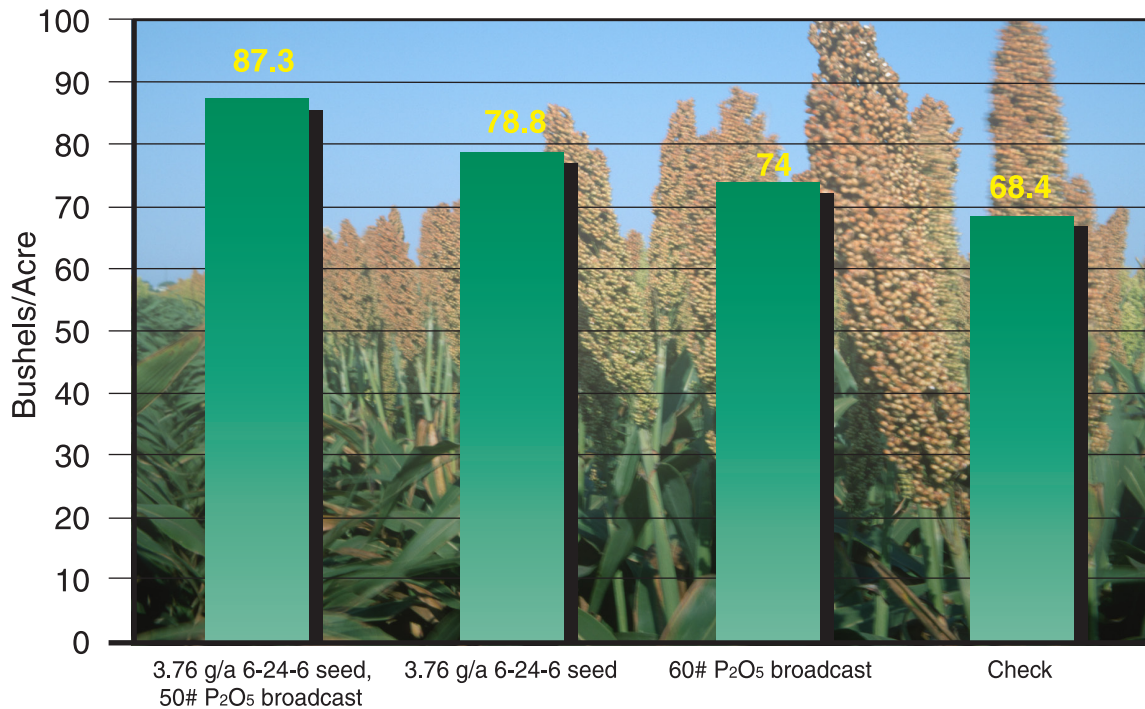


PureGrade Liquid Plant Food



Combination and Individual Fertilizer Treatments¹ Conventional-Till Grain Sorghum



The 3.76 gallons per acre application rate of 6-24-6² seed-placed fertilizer provides 10 pounds/acre P₂O₅. The combination treatment had a total of 60 pounds/acre P₂O₅ when both the seed placed and broadcast amounts are added together. This split placement of phosphorus was more effective than either broadcasting all of the 60 pounds alone or using only the seed placement method.

Initial phosphorus soil test levels were 7, 5 and 4 ppm Bray P1 respectively for the 0-3, 3-6 and 6-12 inch soil depths. These are low test levels for P. Nitrogen and potassium applications were equalized so equal amounts were applied to all treatments. Nitrogen as 28% UAN was used to balance the total N amount to 100 lbs/a. Potassium was balanced with KCl to apply a total of 70 lbs/a K₂O. 7-21-7 was used for the broadcast P treatments.

Many times a combination of phosphorus sources and placements are needed for the best yields in low testing soils. Not shown above, but also included in the study, was a treatment with 10 pounds/acre seed placed P₂O₅ plus 20 pounds P₂O₅ knifed deep. Yield was 89.1 bushels per acre. Several successful methods of combining different phosphorus treatments are available to the grower.

¹ Kansas State University. Comparison of starter, broadcast, and knifed phosphorus fertilizer for no-till and conventionally-tilled grain sorghum. 1989. Test site: Ottawa, Kansas.

² The 6-24-6 used in this study was a low salt, neutral pH, non-corrosive, starter fertilizer comparable to Nutra-Flo's GoldStart 6-24-6.

