



Tennessee: Foliar Feeding of Cotton – Evaluating Potassium Sources, Potassium Solution Buffering, and Boron

Research was conducted on two silt loam soils to evaluate four potassium (K) sources. A second study compared the effects of two foliar K sources...potassium nitrate (KNO_3) and potassium sulfate (K_2SO_4) solutions...buffered and unbuffered to two pHs on cotton nutrition and yield. A third study evaluated combinations of soil- and foliar-applied boron (B) and K.

Yields from the four K sources averaged 10 percent higher than the untreated check, and yields with KNO_3 were 4 percent higher than the other K sources. Buffering the two K solutions to a pH of 4 resulted in yields 10 percent higher than

the check or unbuffered K solutions. Adding a surfactant to KNO_3 resulted in yields 5 percent higher than the check. Soil-applied B increased yields by 6 percent, and four foliar applications of B increased yield by 8 percent. Four foliar applications of B plus K increased yields by 13 percent.

Researchers pointed out that foliar K solution buffering and/or the inclusion of foliar B are relatively inexpensive ways of boosting yield response. Based on test results obtained, such treatments should return 8 to 10 times product costs. **BC**

Source: *Agron. J.* 90:740-746 (1998)

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led on a journey to examine the major nutrients for an understanding of why each is important to plant and human health.

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