

Abstract

This field study was conducted to determine the effect of foliar fertilization on bread wheat (var. Chozi) grain yield (GY) and quality under limiting soil moisture regimes at Katumani a marginal area of the Eastern Province- of Kenya. The trial was laid out in a randomized complete block design and replicated four times. Plant nutrients were sprayed at tillering as foliar urea (46-0-0) 20 kg N ha⁻¹, 20kg N ha⁻¹ + Bayfolan® (11-8-6) 5 l ha⁻¹, 30 kg N ha⁻¹ , 30 kg N ha⁻¹ + Bayfolan® 5 l ha⁻¹ , Bayfolan® 5 l ha⁻¹ and 0 (no spray). Starter fertilizer was supplied at sowing at 100kg ha⁻¹ (NPK 18.46.0). Results indicated that urea application at 20kg N ha⁻¹ increased (GY) significantly (P<0.05) while 30kg N ha⁻¹ increased thousand kernel weight (TKW) and grain protein (GP) significantly (P<0.05). It was concluded that foliar application of urea is beneficial to wheat crop under limiting moisture conditions. Farmers can use foliar application of urea at 20 kg N ha⁻¹ for wheat production in these areas.