

# Summary

The effect of nitrogen (N) and harvest time on several yield components of guinea grass (*Panicum maximum* Jacq.) cv. Tanzania were studied in 1999 in Tejupilco, State of Mexico, Mexico (18° 54' N, 100° 08' W). Treatments consisted of three levels of N (50, 100, and 150 kg/ha) and six harvest times (6, 10, 14, 18, 22, and 26 days after anthesis, DAA), distributed in a randomized complete block design arranged in split plots with three replicates. The following yield components were assessed at harvest: number of reproductive tillers (NRT), number of vegetative tillers (NVT), number of total tillers (NTT), panicle length (PL), number of racemes per panicle (NRP), number of spikelets per panicle (NSP), and percentage shedding (PS). The application of N had a positive effect on NVT, NRT, PL, NRP, and NSP; highest values were obtained with 100-150 kg N/ha. A positive correlation was also observed between seed yield and NRT (0.7029), PL (0.6454), and NSP (0.5516). Harvest time did have an effect on NVT and PS ( $P < 0.01$ ); PS

gradually increased with later harvest times (from 6 to 26 DAA). Yield components of guinea grass presented a higher response to N fertilizer with 150 kg N/ha. The best time to harvest was 18-22 DAA or when shedding of spikelets ranged between 33%-53%.