

# Summary

An study was carried out during 1999 in Tejupilco, State of México, México (18° 54' N, 100° 08' W and 1320 m.a.s.l.), with aim of evaluate the effect of the application of nitrogen and harvest moments on seed yield and quality of guinea grass (*Panicum maximum* Jacq.) cv. Tanzania. Treatments consisted in three N levels (50, 100, and 150 kg/ha) and six harvest moments (6, 10, 14, 18, 22, and 26 days after antesis, DAA) distributed in a randomized complete block design and arranged in split plots with three replicates. Variables evaluate were: total yield (TSY) and pure seed yield (PSY), moisture content (MC), purity percentage (PP), 1000 seed weight (MSW), germination percentage (GP), and vigor percentage (VP) at 7 months of storing. Results showed that N application increased TSY and PSY ( $P < 0.01$ ). The highest yields of TSY and PSY occurred with the aplicacion of 150 kg/ha of N (146.9 and 104.6 kg/ha, respectively). The effect of N on MC, PP, GP, and VP was not

significant ( $P > 0.05$ ). The harvest moments showed effect ( $P < 0.01$ ) on TSY, PSY, HC, PP, MSW, and VP. The highest TSY and PSY were obtained at 18 DAA with 158.7 and 138.6 kg/ha, respectively. Vigor and germination percentage were 55.6% and 68.9%, respectively. The highest TSY and PSY were achieved when MC ranged between 44.6% and 51.2%. The interaction effects of N levels and harvest moments on TSY and PSY were significant ( $P < 0.01$ ). The highest TSY and PSY (210.4 and 187.1 kg/ha, respectively) occurred with the application of 150 kg of N/ha and 22 DAA. It is concluded that the highest total yield and pure seed yield was achieved using between 100 and 150 kg/ha of N and harvesting between 18 and 22 DAA or when seed MC ranged of 45% to 51%.