Abstract

Because grain sorghum (Sorghum bicolor L. Moench) planting in northern Tamaulipas, México, starts when low temperatures still prevail, and the performance of the biofertilizer-sorghum association is not known under these conditions, field studies were conducted to evaluate the effect of seven planting dates on the association of sorghum- biofertilizers (Glomus intraradices, Azospirillum brasilense and brassinoesteroid). No significants effects between were found in any planting date nor in the combined analysis, for grain yield, percentage of root colonization and other agronomic characteristic. Although in the first two planting date low temperatures (12 oC) occurred in the experimental site, they did not affect the root infection. Significant differences were observed only in chlorophyll rate for planting date, hybrids and interaction of this factors. In general, root colonization was low (6 %), and the presence of native mycorrhizal fungi was also observed in the control. Low mycorrhizal colonization was probably due to low N, P and organic matter content in the soil and/or to the inhibitory effect of native fungi.

Keywords

Sorghum bicolor, mycorrhizal colonization, grain yield.