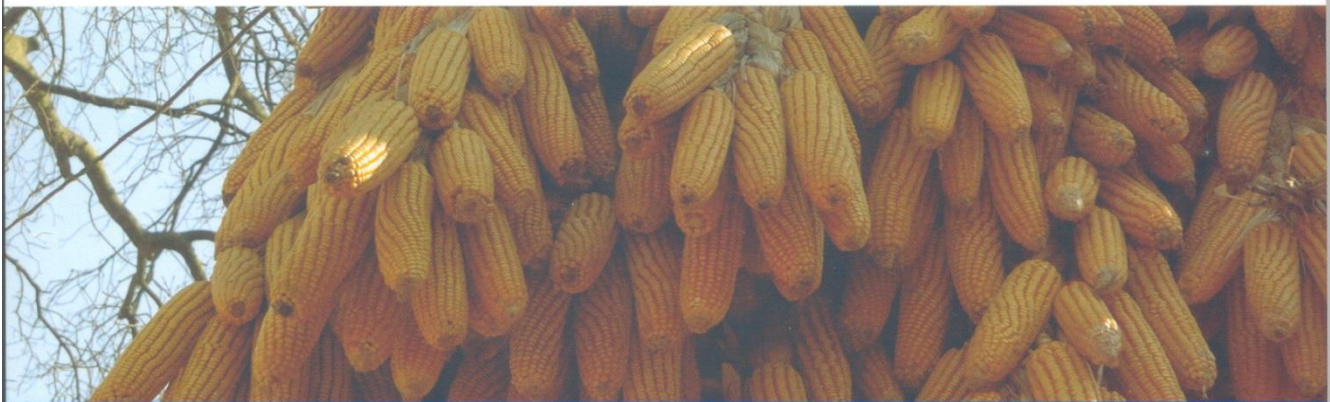


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TS3-54 Performance of Maize Hybrids under Drought and Low Nitrogen Stress in Thailand

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Drought and low-nitrogen (N) stresses are major factors limiting maize production and productivity in Thailand, to help improve understanding about these factors; we compared the gormance of some promising hybrids and analyzed the relationships among yield and secondary traits under abiotic stress conditions. The methodology involved separate trials under drought, low N arni normal conditions (well-watered) during the dry season of 2012, at Tak Fa, Nakhon Sawan, Thailand. The study found significant differences in grain yield among the hybrids in the treatment environments. The mean grain yield under drought, low N and normal conditions averaged 3.83, 3.07 and 8.62 t ha⁻¹ respectively. Yield under drought conditions averaged 56% less than in normal cœditions, while yield under low N conditions averaged 64% less than in normal conditions. The anthesis-silking interval ranged from 1 to 5 days under drought conditions and 0 to 4 days under low N condition. The mean number of ears per plant was 0.8 under drought condition, while under low N, the mean number of ears was 1.0 ear per plant. Phenotypic correlations indicated that the Increases in grain yield under drought and low N stresses were associated with a reduction in ASI, an Increase in the numbers of ears per plant and 1000 seed weight.