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### Abstracts



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### **TS3-10 Yield Stability of a Promising Drought Tolerance Hybrid Maize in Thailand**

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To investigate the yield potential and yield stability of late maturing (115-120 days relative maturity) hybrids, a study was undertaken with eight promising hybrids from the Nakhon Sawan Field Crops Research Center (NSFCRC), one commercial hybrid from the private sector, and another hybrid (NS 3) as a check hybrid. The hybrids were selected for yield and agronomic trait evaluation at seven locations during the rainy season (March to June) 2013. The methodology involved a randomized complete block design with four replications. Each plot consisted of six rows (5 meters long) with a row spacing of 0.75 m. and 0.20 m. between the plants. Analyses of variance showed significant differences ( $P < 0.05$ ) due to variety, location and variety-location interaction. This analysis indicated that large differences occurred among the hybrids in yielding ability specific to each location. The variety-environment interactions were also significantly different from location to location. Across the seven locations, the experimental mean of the days to silking was 57 days, but a highly significant effect was the days to silking among the varieties which ranged from 56 to 58 days. The experimental mean for days to tasselling was 55 days, but each variety varied days to silking on a range from 54 to 56 days. The plant height and ear height traits showed that most entries had ear placement at about the middle of the plant height, the shelling percentage, ranged from 79.62% to 83.20% and experimental mean was 81.40%. The highest level of grain yield was obtained from three hybrids -NSX 042007 (5.88 t ha<sup>-1</sup>), NSX 052014 (5.71 t ha<sup>-1</sup>) and NSX 112013 (5.69 t ha<sup>-1</sup>) which produced 5% to 9% greater yield than the check variety, NS3 (5.40 t ha<sup>-1</sup>) at  $P < 0.05$ . Furthermore, the study found that the three highest yielding hybrids also consistently maintained high-yield performance over diverse, tested environments.