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Drought Tolerance Characteristics of Brazilian Soybean Cultivars —Evaluation and characterization of drought tolerance of various Brazilian soybean cultivars in the field-

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Abstract: Drought is one of the major constraints for soybean production in Brazil. Seed yield of ten Brazilian soybean cultivars sheltered from rain (drought stress) for one month after the first flowering was examined over two growing seasons in the field in Londrina, Brazil. The drought tolerance on the basis of seed yield varied with the cultivar, and the yield ranking among cultivars was nearly the same across two years. In cultivars with higher drought tolerance, crop growth rate (CGR) during the drought stress period was higher than in other cultivars. They also maintained a larger leaf area during the stress period. Although reproductive development was retarded by the drought stress, it tended to be retarded less in drought-tolerant cultivars. The information obtained in this research may be useful for breeding drought-tolerant cultivars or selecting diverse germplasms of soybean cultivars.

Keywords: Brazil, Crop growth rate, Cultivar difference, Drought tolerance, Harvest index, Rain shelter, Seed yield, Soybean



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