



## Adaptability and stability of soybean genotypes in off-season cultivation

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**ABSTRACT.** The oil and protein contents of soybean grains are important quantitative traits for use in breeding. However, few breeding programs perform selection based on these traits in different environments. This study assessed the adaptability and stability of 14 elite early soybean breeding lines in off-season cultivation with respect to yield, and oil and protein contents. A range of statistical methods was applied and these analyses indicated that for off-season cultivation, the lines UFUS 5 and UFUS 10 could be recommended due to their superior performance in grain yield, oil content, and specific adaptability to unfavorable environments along with high stability in these characteristics. Also recommended were UFUS 06, which demonstrated superior performance in all three tested characteristics and showed adaptation to favorable environments, and UFUS 13, which showed high adaptability and stability and a superior performance for protein content.

**Key words:** *Glycine max* (L.) Merrill;  
Genotype x environment interaction, Grain yield; Oil content;  
Protein content