

## **ABSTRACT**

### **AGRONOMIC CHARACTERS PERFORMANCE OF EXPECTED LINES OF SOYBEAN GENERATION F<sub>7</sub> FROM COSSING OF WILIS x B<sub>3570</sub>**

**By**

**Susan Desi Liana Sari**

Soybean is an important food crops to be consumed by Indonesian people. Soybean demand in Indonesia is high, but the productivity is very low. Fulfillment of soybean in Indonesia is obtained by importing. Efforts continue to be made to increase the productivity of soybean in Indonesia by using superior varieties through plant breeding, by crossing two parents which have different properties. The purpose of the study are (1) Comparing the appearance of agronomic characters of several expected lines of soybean plants from crossing of Wilis x B<sub>3570</sub> with parents and other varieties for comparison. (2) Determining numbers of expected lines in every strain of F<sub>7</sub> generation from crossing of Wilis x B<sub>3570</sub>. The used materials in this study are Wilis, B<sub>3570</sub>, Gepak Kuning and 11 genotypes from crossing of Wilis x B<sub>3570</sub> with 142-102-4-6-4; 142-163-1-1-2; 142-163-1-1-10; 142-163-1-16-10; 142-163-1-1-14; 142-159-1-16 -17; 142-159-1-16 -12; 142-159-1-16 -2; 142-159-5-1 -6; 142-159-1-14-1; and 142-159-1-14 -12. This study used randomized complete block design, consisting of two replications with planting space of 20 x 50 cm.

Further test used Least Significant Increase tes in 0,05. These results indicated that (1) there are several genotypes that have larger mean than the Wilis, these are characters of total of seeds weight, number of pithy pods, number of empty pods, and the number of two pods of seeds per plant, whereas when compared with B<sub>3570</sub>, genotypes with larger mean contained in characters of number of productive branches, total of seeds weight, number of pithy pods, the number of two pods of seeds per plant and, if compared with Gepak Kuning, genotypes with larger mean are characters of weight of 100 grains, the number of empty pods, and the the number of three pods of seeds per plant. (2) genotypes with numbers of 142-102-4-6-4, 142-163-1-16-10, 142-159-1-16 -17, -2 142-159-1-16, 142-159-5-1 -6, 142-159-1-14-1, and 142-159-1-14 -12 are the superior expectation numbers are supported by the better component characters results.

**Keywords:** Agronomic characters, Expected lines, Soybean.