

## GENETIC VARIABILITY STUDIES FOR YIELD, OIL AND MORPHO-PHYSIOLOGICAL TRAITS IN SOYBEAN (*GLYCINE MAX* (L.) MERRILL)

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**Abstract:** Thirty five different elite germplasm lines of soybean along with five checks were sown during kharif, 2011 in an experimental laid out at experimental farm of All India Coordinated Research Project on soybean, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani during kharif, 2011 with a view to study the genetic variability for yield, oil and morpho-physiological traits in soybean. The study revealed that the genotypes viz., EC 3412, EC 257303, MACS 609, JS 20-29, JS 93-05, MAUS 162, NRC 87, SL 778, MACS 1281, NRC 86, Swarna Vasundhara, VLS 77, MACS 1259, AMS-MB 5-19, Monetta and MACS 1201 exhibited better performance for number of branches per plant, number of pods per plant, 100 seed weight, harvest index, leaf area index, oil content. High genetic coefficient of variation was observed for seed yield per plant, number of pods per plant, number of branches per plant, leaf area index, plant height and harvest index. High heritability coupled with high expected genetic advance was observed for number of pods per plant, seed yield per plant, number of branches per plant and 100 seed weight. Hence, direct selection for these characters in soybean will increase the breeding efficiency. The promising genotypes viz., EC 3412, EC 287303, MAUS 609, JS 20-29, JS 93-05, MAUS 162, NRC 87, SL 778, MACS 1281, NRC 86, Swarna Vasundhara, VLS 77, MACS 1259, AMS-MB 5-19, Monetta, MACS 1201 should be further evaluated for yield and other characters in future.

**Keywords:** Genetic variability, Heritability, Soybean, Yield

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