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Association analysis for seed height in edamame

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Increasing the seed size in soybean seed is an important breeding objective in an edamame breeding program. The goal of this research was to identify SNP markers that are associated with seed height in edamame germplasm. 271 accessions, weighing ≥28g/100, ordered from Germplasm Resources Information Network (GRIN), were used for the association analysis of seed height. 42,081 SNPS for each accession were downloaded from SOYBASE (www.soybase.org). Structure and Mega 7 software grouped the 271 accessions into two groups. The association analysis was estimated by Tassel and GAPIT software. 24 SNPS were found to be associated with seed height in edamame, with SNPS ss715586799, ss715596074, and ss715633048 to be highly associated.