



## RESEARCH PAPER

# Estimation of variability and genetic parameters for nut yield in the seedling raised natural walnut (*Juglans regia* L.) population in the Kashmir valley

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**Abstract :** The present investigation on estimation of variability and genetic parameters for nut yield (kg tree<sup>-1</sup>) in the seedling raised natural walnut (*Juglans regia* L.) population in the Kashmir valley' was carried out in order to document the available genetic variability in walnut germplasm and to select elite walnut genotypes possessing superior attributes and quality traits. During the survey, data were recorded on one hundred fifty two (152) walnut trees growing in different areas of Kashmir valley. Remarkable variability was observed in seedling walnut trees for different morphological, nut and kernel characters. Similarly, variations were also reported for other characters viz., tree vigour, growth habit, branching habit, leaflet shape, shoot colour, nut shape, shell texture, shell colour, shell seal, shell strength, shell integrity, kernel shrivel and kernel colour. In order to reduce the variation in the nut yield the entire population of the seedling raised walnut trees in the present study were put into different age groups viz., 15-30, 31-50, 51-70 and above 70 years age on the basis of information from the owner and visual estimate (tree girth and canopy). Mean dried nut yield of  $20.92 \pm 1.95$ ;  $31.35 \pm 2.35$ ;  $42.02 \pm 2.67$  and  $63.24 \pm 3.10$  kg tree<sup>-1</sup> was recorded for 15-30, 31-50, 51-70 and above 70 year age groups, respectively. The magnitude of variability recorded was 10.2- 55.5; 19.5-68.0, 30.3-165.5 and 37.5-185.0 kg tree<sup>-1</sup>, respectively.

**Key Words :** Walnut, Variability, Nut yield

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