

PA-43

Comparative Evaluation of Qualitative and Quantitative Traits of Common Buckwheat (*Fagopyrum esculentum*)

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[ABSTRACT]

Common Buckwheat is a crop with high nutritional value due to its high protein, magnesium, iron, and vitamin content, as well as excellent rutin and quercetin content. This study was conducted to investigate the main agricultural characteristics of common buckwheat genetic sources and use them as basic data for establishing cultivation technology and fostering new varieties. The seeds were planted in the research field of Chungbuk National University on 24th April, 2022 maintained at 15 × 20 cm planting spaces. To evaluate the genetic diversity and morphological traits of buckwheat, different kinds of qualitative and quantitative traits were investigated of the 50 varieties.

The germination percentage of common buckwheat showed more than 85% that also showed the uniform germination. During the flowering period, all varieties bloomed within six days from June 18 to 23. The leaves color of common buckwheat were all dark green, and most of the stem colors were mixed with light green, light red, red, and crimson. The leaves of common buckwheat were mainly heart-shaped, and most of the flowers were white. The leaf length was 65.78 to 40.53 mm, and the width was 74.42 mm to 39.74 mm. The stem thickness was between 3.5 and 3.76 mm and the length was between 97.3 cm and 40.24 cm.

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