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A New Cowpea Cultivar 'Okhyun' with Green Cotyledons and a Black Seed Coat

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[Abstract]

Cowpea (*Vigna unguiculata* L. Walp) has excellent physical properties and texture of starch, so it is mainly used in various ways for songpyeon sediment, rice-cake paste, and porridge. To utilize it as various processed products such as songpyeon sediment and cowpea milk, 'Okhyun', which has green cotyledons and black seed coats and can be harvested by combine was developed. A cowpea variety 'Okhyun' was improved from the cross between IT145379 and IT208081 at the JARES in 2022. 'Okhyun' has an erect plant with an intermediate plant habit, a light purple-colored corolla, and heart-shaped leaflets. 'Okhyun' has green cotyledons and black seed coats, and has straight black brown pods when mature. The stem length of 'Okhyun' is 47cm, and the weight of 100-seed weight was 12.9g, which was lower than the control variety 'Okdang'(16.6g). 'Okhyun' contains 25.8mg/100g of anthocyanin, 279mg/100g of total polyphenols, and 335mg/100g of total flavonoids, respectively. The average yield of 'Okhyun' was 1.97ton per hectare, 11% higher than that of the control cultivar 'Okdang'. 'Okhyun' does not require the installation of an espalier-net net, so it is possible to harvest with a combine. In addition, 'Okhyun' variety with green cotyledons and a black seed coat is expected to contribute to developing regional specialties and various processed products.

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