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## A New Cowpea Cultivar ‘Jang-alchan’ with Mechanization Harvesting and High Yield

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### [Abstract]

Cowpea (*Vigna unguiculata* L. Walp) has a low fat and protein content and a relatively high starch content, so it is mainly used in various ways for song-pyeon sediment, rice-cake paste, and porridge. In Yeonggwang-gun, Jeollanam-do, cowpea for seed production is being cultivated for the localization of raw material for Rice cake with ramie leave. A cowpea variety ‘Jang-Alchan’ was improved from the cross between IT145373 and IT145391 at the JARES in 2019. ‘Jang-alchan’ has an erect plant with an intermediate plant habit, light purple-colored corolla, and heart-shaped leaflets. ‘Jang-alchan’ has an orange-yellow seed surface of faint luster, and brown and straight pods when matured. The stem length of ‘Jang-alchan’ was 48cm, 9cm longer than that of the control cultivar ‘Okdang’ and the 100-seed weight was 14.1g. The weight ratio of the seed coat for the entire seed was 11.2%, which was 0.2%p lower than that of the control cultivar. Field resistance of ‘Jang-alchan’ to leaf and systemic diseases was similar to that of the control cultivar. Its field resistance of ‘Jang-alchan’ to lodging was slightly lower than that of the control cultivar. The average yield of ‘Jang-alchan’ was 1.85ton per hectare, which was 14% higher than that of the control cultivar ‘Okdang’. ‘Jang-Alchan’ does not require the installation of an espalier-net and is taller than the existing supplied ‘Okdang’, so it can be harvested by combine harvesting. In addition, it is expected to contribute to the localization of raw material grains for regional specialties as it can be cultivated over a large area.

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