



New Mungbean Cultivars With High Yield and Large Seed Size

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Plant and flowers (A), leaves (B), pods (C), and seeds (D) of the new mungbean cultivar KUMML4. I

Plant and flowers (A), leaves (B), pods (C), and seeds (D) of the new mungbean cultivar KUMML4. Image from Somta et al. (2024).

Mungbean [*Vigna radiata* (L.) R. Wilczek] is an important and popular legume crop in Asia. Mungbean seeds contain about 20–25% protein and 60–65% carbohydrate and are used to prepare a wide variety of foods and products. In Thailand, farmers, consumers, and processors prefer large-seeded mungbeans. However, all the mungbean cultivars currently available in Thailand have a medium seed size.

To fulfil these stakeholders' needs, a team from Kasetsart University in Nakhon Pathom, Thailand developed two new mungbean cultivars with high yield and large seeds by hybridization and selection. One of the parents used in the breeding program is known to have large seed size, early maturity, and resistance to powdery mildew disease.

In the standard yield trial experiment and in on-farm yield trials, the breeder team found that the new cultivars showed earlier maturity and uniformity and larger seeds than all the check cultivars. One of the new cultivars also showed similar yield to the best check cultivar. The two new cultivars, 'KUML4' and 'KUML8,' have been registered to the Department of Agriculture of Thailand and are now gaining popularity with farmers and food processors in the country.

Adapted from

Somta, P., Sorajjapinun, W., Yimram, T., Tanadul, O.U.M., Laosatit, K., & Srinives, P. (2024). Registration of 'KUML4' and 'KUML8' mungbean cultivars with high yield and large seeds. *Journal of Plant Registrations*, 18, 33–41.
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