

Development of new Adzuki bean cultivar Kaohsiung No.3

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The Kaoping district is the major Adzuki-bean-producing area in Taiwan, which occupies 98% of the provincial total. Adzuki bean is planted as one of the winter cash crops in the district and most of the products are exported to Japan. To meet the demand of Adzuki bean production and export in the future and retain credit of the foreign market of this crop, the Kaohsiung DAIS has made efforts to develop Adzuki bean varieties with better yield and quality for farmers. The cultivar Kaohsiung #3, a cultivar recently released by this station was developed under this goal.

Kaohsiung #3 was selected from the cross Dainagon Takahasi was in winter crop of 1971, the generations from F_2 to F_5 were advanced with bulk method and the superior line KS352 was selected in the Winter crop of 1974. Average yield in the performance tests carried out from 1976 to 1980 was 2727 kg/ha, being about 11.4% higher than the check variety Pingtung Native. The average seed size (weight of 1000-seed) was 150 gram being 18% larger than the check. From 1981 to 1982, this line was regionally evaluated in 5 major Adzuki bean locations. Wider adaptability and larger seed size as compared with the check were found and the average yield over locations of this line was 2619 kg/ha, which was about 12.1% higher than the check. Due to its superior performance, this line was named as Kaohsiung #3 in December of 1983.

Kaohsiung #3 is a high and stable yielder. It has stiff stem, large seed size, and high podding position. It also shows large leaf area and forms a canopy rapidly.

In the Winter crop of 1984, 11 demonstration plots were set up jointly by the Pingtung and Kaohsiung prefectures and Kaohsiung DAIS. The results were quite encouraging.