

Breeding of a New Cherry Tomato Variety - Hualien Asveg 21¹

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Summary

To improve tomato variety, Hualien District Agricultural Research and Extension Station cooperated with Asian Vegetable Research and Development Center (AVRDC) to breed high quality orange cherry tomato variety which is resistant to tomato leaf curl virus (ToLCV). The new orange cherry tomato line CHT1417 was registered as a new variety ‘Hualien Asveg 21’ and awarded the plant variety right in January 15, 2007 after preliminary and advanced yield trials, disease evaluations, regional yield trials and fertilizer trials. The Hualien Asveg 21 is a single cross F₁ hybrid of CLN2463-57-19-11-18-15-19-80-0 as the female parent crossed to CLN2487-16-10-4-5-0. It is a variety of indeterminate growth habit. Fruits are oval-shaped and orange at maturity, the average fruit weight is 13.5 g, the soluble solids content is about 7.3 °Brix. The fruit is firm, good taste, and with low fruit cracking rate. The new variety is resistance to tomato leaf curl virus (with *Ty-2* gene), tomato mosaic virus (with *Tm-2^a* gene), bacterial wilt race 1 and 2 (with *I-1* & *I-2* gene), and medium resistant to Bacterial wilt (Incidence rate=40%). The yield of Hualien Asveg 21 is 40.1 MT/ha. It is suitable for planting in spring and late summer seasons.

Key words: cherry tomato, variety, breeding, tomato leaf curl virus (ToLCV)

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