

The Research Achievements of Winged Bean Industrial Adaptation and Its Prospects

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Abstract

Winged bean (*Psophocarpus tetragonolobus* (L.)DC.) had introduced to Taiwan for more than one hundred years and has become an important legume vegetable in many indigenous communities in Taiwan. To date, through the efforts of the Taitung local farmers and vendors, winged bean has become a popular vegetable in the metropolis. To develop the industrial of Taitung local characteristic vegetable, Taitung DARES devoted to the research of winged bean and help the local farmers and vendors to overcome the difficulties of production. In the preliminary research, some problems were found, i.e. (1) the quality of the commercial pods were low due to the strings and aging problem that cause bad taste; (2) lacking a suitable cultivation method for this crop; and (3) lacking a suitable winged bean variety for the industry. Therefore, we had developed the following techniques to improve the aforementioned problems: (1) the harvest indices of immature pod; (2) seed preservation and forced germination method; (3) cultivation method of tunnel trellis; (4) Taiwan good agricultural practices (TGAP) and (5) a new winged bean variety 'Taitung No.1' with the characteristics of high yield and day neutral. In the meantime, we also counselled the local farmers with the cultivation method teaching and the new winged bean variety promotion to improve the weakness of the local winged bean industry. In addition, the local farmers and vendors also improved their benefits by linking the PX mart to sell the winged bean to the consumers directly. In conclusion, Taitung farmers and vendors has built a new sales model that different from the conventional terminal market in west Taiwan and the advancement of winged industry in Taitung is worth of expectation.