

Research and Development Achievements and Prospects of Djulis Industry Adjustment

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Abstract

Djulis is the traditional crop of indigenous peoples, which has good adaptability to the environment and rich in nutrients and functional components, it also is one of the most important characteristic cereal crops in Taitung. Taitung DARES dedicated to djulis research since 2009. For the past few years, besides continuing work on the breeding, we also worked on the research in harvesting and postharvest techniques, functions components, and established the cropping system in response to the climate change. As for the research on djulis cropping mode in response to climate change, we established the rotation system of djulis and rice, and breed Djulis 'Taitung No. 1', a new variety which has red panicle and early maturity characteristics. The djulis crop of the djulis and rice rotation system can be planted from December to the next year's April, and choose the suitable varieties according to the climate conditions, in order to avoid yield reduction. And the rice crop can be cultivated from July to November, when is the same as the cultivation period of traditional second crop. Djulis 'Taitung No. 1' has early maturity characteristics, the average growth period is 93 days. It can reduce the risk of being affected by extreme weather and the production cost, and can be used in djulis and rice rotation system. As for the research on djulis functional components, we analyzed the functional components of different djulis lines and utilization parts, and dedicated to improve the production system for being used as the material for making healthy foods or botanical new drugs, hoping to promote djulis raw materials towards high-value applications.