

To evaluate adaptation and use tropical & subtropical germplasm of vegetables for climate changing

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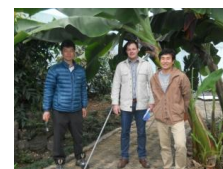
Abstract - According to expectation of subtropical region based on the A1B climate change scenario, the Korean peninsula with

17% will go into subtropical climate from 2071 to 2100 years. We hope to make some chances to grow new profitable crops though this global warming.

For the preparation of the peninsula's subtropical climate zone increased, the tropical and subtropical crops germplasm collection and selection is required. For successful introduction of tropical and subtropical crops needs that adaptability studying and cultivation techniques need to be developed and the technology developed is needed for increasing profitable of the crop after introduced and for the utilization of functional materials too. Historically, garlic, peppers, etc. have been introduced a long time ago and now, the most important vegetables and paprika, broccoli, etc. In recent years, becoming an important source of income has been introduced. Recently been introduced in this experience, Globe Artichoke, Bitter Gourd, air-cored, Indian spinach, Amaranth, of vegetables, such as in the not-too-far future is likely to be important vegetables grown. That's why recently been introduced in the characteristics of vegetables contain functional materials that can be a significant help to prevent from adult diseases, which is a problem for moderns. But

crops cultivation technology development and environmental adaptability could be high if consumer preference does not fit, it should be difficult to grow widely in Korea. Therefore, familiar dishes or added to the need to develop new dishes using vegetables they have functional ingredient. 'Bitter Gourd' has 'Momordicin' that is known a good effect to control diabetes or hyperlipidemia, bitter taste failed to get interest from consumers, whereas, when some made the tea of 'Bitter Gourd' that lead to be new profitable crops. Mediterranean origin 'Globe Artichoke' has Cynarin that since ancient times been used edible and medicinal, and introduced into the crop with a variety of health, such as heart disease, diabetes, liver protection, and digestive functionality, adaptability evaluation results wintering cultivation on the open field in Jehu Island is successful, but for reasons that are not used for cooking in Korea, it will not be grown widely. The tropical or subtropical vegetables containing functional materials like as Gac, Apios, Okra, could be grown widely and will create a new industry if we used, developed or powdered, pickled, or canned. We need to develop a new industry by introducing new crops against climate change.

Photos: Technical Visit to Agriculture Research Center for Climate Change. NIHHS, RDA, 27th March



Key words: tropical, subtropical, vegetable, functional materials

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