

Making “GOYA Green Curtain”, to be More Ecology Friendly with “Eco-cooking” Approach by Reducing GOYA Bitterness

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Abstract

“Green curtain”, using vines of GOYA, bitter melon, is widely promoted in Japan to alleviate the summer heat to conserve energy and it is practiced actively by many schools as ecological act. However, the GOYA fruit produced in the end which is edible is not being used so much due to its bitterness. We have worked on reducing its bitterness with “eco-cooking” approach so that we can reduce any waste and promote GOYA eating. There has been numerous ways used in the past to reduce bitterness by pretreatment such as; soaking in the water, rubbing salts, pre-cooking in the boiling water and etc. We have tested those methods but the result was not very significant in sensory test. Hence we discarded such pretreatment and used raw GOYA and tried to reduce its bitterness by mixing ingredients and creative cooking methods. As a result, we found two menus, “Okonomiyaki” and “GOYA Chanpuru”, we could significantly reduce bitterness. In the cooking process, we used shredded GOYA for “Okonomiyaki” and mixed with curry spices and shredded dried bonito for “GOYA Chanpuru”. During the whole cooking process we have introduced “eco-cooking” approach and we have accomplished reducing water and gas consumption and waste disposal ratio by 45.0-73.0%. In total, we have reduced CO₂ emission by 57.8% with “GOYA Chanpuru”, and 46.6% with “Okonomiyaki”.

Key words; bitter melon, eco-cooking, ecology, green curtain, conservation energy, CO₂ emission reduction