

Effect of Plant Nutrients on Anthocyanin Content and Yield Component of Black Glutinous Rice Plants

Authors : Chonlada Bennett, Phumon Sookwong, Sakul Moolkam, Sivapong Naruebal Sugunya Mahatheeranont

Abstract : The cultivation of black glutinous rice rich in anthocyanins can provide great benefits to both farmers and consumers. Total anthocyanins content and yield component data of black glutinous rice cultivar (KHHK) grown with the addition of mineral elements (Ca, Mg, Cu, Cr, Fe and Se) under soilless conditions were studied. Ca application increased seed anthocyanins content by three-folds compared to controls. Cu application to rice plants obtained the highest number of grains panicle, panicle length and subsequently high panicle weight. Se application had the largest effect on leaf anthocyanins content, the number of tillers, number of panicles and 100-grain weight. These findings showed that the addition of mineral elements had a positive effect on increasing anthocyanins content in black rice plants and seeds as well as the heightened development of black glutinous rice plant growth.

Keywords : Anthocyanins, Black Glutinous Rice, Mineral Elements, Soilless Culture

Conference Title : ICABE 2020 : International Conference on Agricultural and Biological Engineering

Conference Location : London, United Kingdom

Conference Dates : March 12-13, 2020