

## ABSTRACT

The study was conducted at Northern Iloilo Polytechnic State College – Barotac Viejo Campus, Barotac Viejo, Iloilo Experimental Area from July 1, 2019 to February 10, 2020. The study dealt with the performance of purple glutinous corn applied with sargassum liquid extract and organic soil conditioners in two trials. The study was a 3 X 4 factorial experiment, laid out in split plot design. Factor A included three levels of sargassum liquid extract, such as 20%, 30%, and 40%. Factor B consisted of different organic soil conditioners such as vermicompost, dried cattle manure, chicken dung and decomposed rice straw. Each treatment was replicated three times.

The growth parameter was measured in terms of mean height of corn plant (cm), diameter of stem (cm), biomass (kg), and number of leaves at harvest. Yield parameter was measured in terms of number of corn ears per plant, length of unhusked and husked ears (cm), diameter of unhusked and husked ears (cm), weight of unhusked and husked ears (kg), and weight of marketable ears per hectare (kg) at harvest. Pest infestation was limited only to corn borer infestation. Profitability of purple glutinous was also determined by computing its return on investment (ROI). All data gathered were subjected to Analysis of Variance (ANOVA) in Split-Plot Design using Statistical Tool for Agricultural Research (STAR) at 5% level of significance.

In Trial 1, only the parameters on weight of unhusked and husked ears and corn borer stem damage were significantly affected by the use of SLE and 30% SLE obtained the best result. All other parameters were not affected by the levels of SLE and different sources of OSC.

In Trial 2, significant results were only obtained on the height, biomass, diameter of unhusked and husked ears, weight of unhusked and husked ears and corn borer damage. No

significant results on the use of SLE but significant results were noted on the use of OSC where VC, DCM and CD were found best. The combination of the different levels of SLE with VC and CD increased the yield and ROI of purple glutinous corn. VC and OSC are potential fertilizers in the production of purple glutinous corn.