

## **Effects of fermented plant juice and fruit juice on growth and yield of tomato for sustainable practices**

### **ABSTRACT**

The experiment consisted of five treatments of fermented plant juice (FPJ) and fermented fruit juice (FFJ). The treated plants with FPJ and FFJ produced early flowers and fruits compared to untreated plants due to the enhanced production of auxin and essential nutrients. Total soluble solids were also observed to increase after 10 weeks of FPJ and FFJ application. Photosynthesis rate increased in all treatments except T3; while transpiration rate increased only at T4 compared to control. The findings we clearly suggested to use both combinations as FPJ water spinach for enhancing the vegetative growth of tomato plants than FPJ bamboo shoots (T3 and T5), while FFJ pineapple for better reproductive development of tomato plants rather than FFJ banana (T5) for ensuring future sustainable eco-friendly agriculture practices.

**Keyword:** Tomato; Fermented fruit juice; Fermented plant juice; Organic fertilizer; Plant hormone