**Growth And Production of Glutinous Corn *(Zea mays* C)**
**Planst To Reduction of Inorganik Fertilezer N And**
**Provision of Compost (*Tithonia diversifolia*)**
Supervised By Ilham Mukhlisin,S.ST.,M.Sc

**Yogi Dwi Dana Agustiawan**
Studi Program of Food Crop Producton Technology
Departement of Agricultural Production

## ABSTRAK

The clining quality of soil is party caused be the countinous use of cemical fertilizers, which can negatively affect maize production. Therefore, eforts are needed to improve soil quality through the aplication of organic fertilizer. One of which is compost made froms paitan leaves. This study amied to determine the growth and productions responses of waxy maize (*Zea mays* C) to reduced use of inorganic nitrogen N fertilizer combined with the aplication of paitan leaf compost (*Thitonia deversofolia*). The study was conduced in Karangrejo Village, Yosowilangun District, Lumajang Regency. Using a faktorial Randomized Complete Blok Desing (RCBD). The first factor was the N fertilizer dosage, consisting of 150 kg/ha, 225 kg/ha and 300 kg/ha, while the second factor was the paitan leaf compost consisting, of 5 tons/ha, 10 tons/ha and 15 tons/ha. The resoul sowed that the combination of inorganic N fertilizers and paitan leaf compost dosages signifikan affeceded plant heigth and biomasa weight. The aplication of paitan leaf compost at a dosage of 15 tons/ha producet the best result for plant height and biomassa weight reaching 188,9 cm and 201,8$^{g}$ respectively. These results indicate that reducing the N fertilizers dosage while suplementing it with a high dosage of paitan leaf compost and suport the vegetative growth of waxy maize. Therefore, the use of paitan leaf compost has the potential the reduce dependece on inorganic N fertilizers and suport sustainable agriculture pratices.

**Keywords***: Waxy maize, sustainable agriculture, organic fertilizers, thitonia deversolia, nitrogen*