Susi Yanti Silalahi “The Utilization Trichoderma harzianum Rifai Antagonist Fungy and Compost to suppress Fusarium oxysporum F.sp.Passiflorae Wilt Diseases on Passion Fruit seedling” with the conseling Dr. Ir Hasanuddin MS and Ir. Kasmal Arfin Msi. The Utilization of fungiside not wise can make environment polution, so to decrease this problem having biological control developing. Research aimed to know the ability Trichoderma harzianum to suppress developing of Fusarium oxysporum wilt deseases on passion fruit seedling. This reserach was held in green house of experimental fruit and flower garden (KPTB) in Tongkoh-Berastagi Karo residence, since Maret to Juni 2010. The research used method of Complete Design Random Factorial with 2 factors. The first factor that dose Trichoderma harzianum factor (25, 37.5, 50 and 62.5 gr/1,5 gr soil) and the compost factor (chicken and cow compost), that was consist of 10 combines of treatment and three replication.

The results showed that diseases incidence highest at T0 (cotrolled) that 30,07 % and the lowest is T4KS (62.5 gr) that 1,98%. Intensity diseases highest at T0 and T0 that 10,2% and the lowest is T4KS (62.5 gr) that 1,72%.