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THE STUDY OF TURI *(Sesbania grandiflora)* AS NITROGEN SOURCE IN MARGINAL LAND

ABSTRACT

Key Words : Turi (*Sesbania grandiflora*), Nitrogen Fixation , Rhizobium and Decomposition

The objectives of this research are : (1) to find out a type of turi (*Sesbania grandiflora*) which has a potency as nitrogen source on marginal land, (2) the method of developing turi legin, (3) the development of organic fertilizer from turi biomass which can be used to improve nitrogen content on marginal land.

Three experiments had been carried out, i.e. :

(1) analyses study of turi potency as a nitrogen source on marginal land;

(2) analyses study of turi roots development to become turi legin;

(3) experimental work, using explanted land and organic fertilizer of turi biomass to increase the soil fertility (with corn as indicator plant).

A "complete randomized factor real design" involving two factors, three replication were set up. The first factor is variety that consist of white turi and red turi. The others are kinds of legin, sizes of crushed leaves, and the method of mulching for land.

The result of the experiment showed that the white turi was more than the red. The Nodules of red turi was 37.24, while white turi was 62.87. Sizes of 3 cm crushed leaves and 1 cm cutted shoots enchaned