

ชื่อเรื่อง

Vetiver Z. and Some Other Grass Varieties on Sloping Farmland in the North-West Region of Vietnam

ชื่อผู้วิจัย

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Abstract

Experiments were conducted in the fields at different places in the mountainous areas of Northern and the Central Highlands of Vietnam for many years.

Some kind of perennial grasses including Vetiver Z. had been tried to find out their effects in supporting anti-soil erosion on sloping farmland, especially those lands are used for food crop production such as upland rice, maize, cassava, and other annual crops.

The fresh vegetation of those mentioned-above grasses in trial had also been cut 4-7 times per year to use as animal fodder or for mulching. The quality of those fresh parts of the grasses which could be used for animal fodder was as much as 40-48% of the total and had 0.25% of Protein, 0.01% Calcium and 0.003% of Phosphorus.

Each plot (5x20 m each) was planted with one kind of grass from among vetiver Z., panicum M., Tripsacum L., Paspalum U., Pennisetum P. and Sorghum M. In one plot there were 5 rows being planted following different contours at 5 meter intervals. Soil loss and run-off water were observed during rainy seasons.

It have been shown clearly that on all those plots planted with grasses mentioned above the total soil loss and run-off water of one rainy season were 4-5 times less than that of the control plots. Those nutrition contents (NPK) and Humus content in top soil layers sampled of the upper and the lower parts of the grass rows appeared also 5-7 times different in comparison.

Nowadays the grasses are used as inter-cropping cultivars in mountainous regions not only on annual crop fields but also in those perennial crop orchards such as coffee, rubber fruit and tea...plantations. In many areas they are grown for dairying fodders by intensive cultivation. In some localities of mountainous areas of the Central Highlands and the North most of the said grasses can be found existing naturally somehow.