EFEKTIVITAS RUMPUT VETIVER (*Vetiveria zizanioides L),* RUMPUT GAJAH (*Pennisetum purpureum*) DAN RUMPUT RAJA (*Pennisetum tydoides)* DALAM MENGENDALIKAN EROSI PADA ULTISOL

SKRIPSI

Oleh :

FRISKA BR SIREGAR
1310212093

Pembimbing I : Prof. Dr. Ir. Amrizal Saidi, MS
Pembimbing II : Dr. Ir. Adrinal, MS

FAKULTAS PERTANIAN
UNIVERSITAS ANDALAS
PADANG
2019

EFEKTIVITAS RUMPUT VETIVER (*Vetiveria zizanioides L),*
RUMPUT GAJAH (*Pennisetum purpureum*)
DAN RUMPUT RAJA (*Pennisetum tydoides)*
DALAM MENGENDALIKAN EROSI PADA ULTISOL

Abstrak

Ultisol memiliki kesuburan tanah yang rendah. Salah satu penyebabnya adalah erosi. Usaha yang dapat dilakukan untuk mengendalikan erosi adalah dengan penanaman rumput vetiver, rumput gajah dan rumput raja. Penelitian ini telah dilaksanakan di Kebun Percobaan Fakultas Pertanian Universitas Andalas dan Labor Fisika Tanah dari bulan Oktober 2017 sampai Agustus 2018. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan empat taraf perlakuan dan tiga ulangan. Perlakuan yang diberikan adalah Rumput vetivet + teras, Rumput vetiver + rumput gajah, Rumput vetiver + rumput raja, Rumput gajah + rumput raja. Hasil penelitian menunjukkan bahwa (1) Penanaman rumput vetiver, rumput gajah dan rumput raja sangat efektif dalam mengendalikan erosi pada Ultisol; (2) Jumlah tanah yang tererosi pada pengamatan terakhir disetiap perlakuan tidak menunjukkan perbedaan yang signifikan. Jumlah tanah yang tererosi pada pengamatan terakhir di perlakuan vetiver + teras sebanyak 244.06 g (81.34 kg/ha), perlakuan vetiver + rumput gajah sebanyak 236.94 g (78.98 kg/ha), perlakuan vetiver + rumput raja sebanyak 230.80 g (76,93 kg/ha), dan perlakuan rumput gajah + rumput raja sebanyak 224.85 g (74,94 kg/ha); (3) Penurunan jumlah tanah tererosi dipengaruhi oleh pertumbuhan tajuk tanaman dari awal pengamatan erosi sampai pengamatan terakhir pada perlakuan vetiver + teras berkembang sebesar 24%, perlakuan vetiver + rumput gajah sebesar 18%, perlakuan vetiver + rumput raja sebesar 11%, dan perlakuan rumput gajah + rumput raja sebesar 13%.

Kata kunci : ***Rumput Vetiver,Rumput Gajah, Rumput Raja, Ultisol, Erosi***

THE EFFECTIVENESS OF VETIVER GRASS (*Vetiveria zizanioides L),* UGANDA GRASS (*Pennisetum purpureum*) AND KING GRASS (*Pennisetum tydoides)* IN CONTROLLING EROSION ON ULTISOL

Abstract

Ultisol has low soil fertility. One reason for the decrease in soil fertility is erosion. The effort that can be made to control erosion is by planting vetiver grass, uganda grass, and king grass. This research was carried out in experimental garden of Agricultural Faculty Andalas University and soil physical laboratory from October 2017 until August 2018. This experiment used completely randomized design with four levels of treatment and three replications. The treatments given were vetiver grass + terrace, vetiver grass + uganda grass, vetiver grass + king grass, and uganda grass + king grass. The result of this research indicated that (1) Planting vetiver grass, uganda grass, and king grass was effective to control erosion on Ultisol; (2) The amount of eroded soils in the last observation in each treatment didn't indicate significant differences. The amount of eroded soils in the last observation was 244.06 g (81.34 kg/ha) for vetiver grass + terrace treatment, 236.94 g (78.98 kg/ha) for vetiver + uganda grass treatment, 230.80 g (76.93 kg/ha) for vetiver + king grass treatment, and 224.85 g (74.94 kg/ha) for uganda grass + king grass treatment; (3) The decrease in the amount of eroded soils was influenced by the growth of plant canopy from the beginning until the last observation in the treatment of vetiver grass + terrace 24 %, of vetiver grass + uganda grass treatment 18 %, vetiver grass + king grass treatment 11 %, and uganda grass + king grass treatment 13 %.

Key words*: Vetiver grass, Uganda grass, King grass, Ultisol, Erosion*