

**Kombinasi Teknik Konservasi Tanah dan Pengaruhnya terhadap Hasil Jagung dan Erosi Tanah pada Lahan Kering di Sub DAS Biyonga Kabupaten Gorontalo**

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**ABSTRACT**

Upland is one of land potentials for maize development, but most farmers were using upland without soil conservation, so the soil erosion is difficult controlling and productivity is decreasing. This research was aimed to find of soil conservation technique combinations which can minimize soil erosion and rising of maize yields. This research was carried out in Biyonga Sub-Watershed of Gorontalo Regency. Experimental was conducted in afactorial random block design with 2 main factors, where first factor was contour cultivation and the second was strip cropping which each factors consisted of 5 treatments for manure and mulching with 3 replicates. Erosion box and their soil collector were used to measure of soil erosion. Results showed that contour cultivation is  $\pm 1.24$  higher than strip cropping to increase maize yields, but soil erosion was  $\pm 1.20$  higher than strip cropping. The highest of maize yield was 5.82 ha<sup>-1</sup> tahun<sup>-1</sup> and their soil erosion was 1.34 ton ha<sup>-1</sup> tahun<sup>-1</sup>. Soil erosion on the strip cropping was only 1.08 ton ha<sup>-1</sup> tahun<sup>-1</sup> although maize yields were only 4.80 ton ha<sup>-1</sup>. The best dosage for manure and mulching were 10 ton ha<sup>-1</sup> and 12 ton ha<sup>-1</sup>.

Keywords: erosion, strip, cropping, upland, maize