The use of Vetiver grass (*Vetiveria* sp.) to improve low soil fertility for Kale (*Brassica alboglabra*) production.

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Abstract

This study was undertaken to investigate the use of Vetiver grass (*Vetiveria* sp.) to improve low soil fertility for Kale (*Brassica alboglabra*) production. The study was located at Rai Mai Pattana subdistrict, Cha-am district of Petchaburi province during 2006-2008. The soil was Khorat soil. A randomized complete block design (RCBD) with three replications were employed. There were 8 treatments including 1) control, 2) no planting 3-5) Ratchaburi ecotype which their leaves were cut at 4, 5 and 6 months after planting, respectively, 6-8) Surat Thani ecotype planting which their leaves were cut at 4, 5 and 6 months after planting, respectively. The objectives of this study were to investigate 1) biomass of Vetiver grass at 4, 5 and 6 months after planting, 2) effect of Vetiver grass on changes in soil properties and Kale yield, and 3) economic benefices from using Vertiver grass.

The result showed that Ratchaburi ecotype planting and leaves were cut at 6 months after planting had highest weight were 5.07 kg. and long leaves were 2.20 m, whereas Surat Thani ecotype had highest branches (117.33 buds) followed by Ratchaburi ecotype with leaves were cut at 6 (113.56 buds) and 5 (94.89 buds) months after planting. Soil fertility was improved by using Vetiver grass in all treatments. The highest yield of Kale (2,301.36 kg rai^{-1}) and economic benefices (10,377.49 baht rai^{-1}) were found in the soil with Ratchaburi ecotype planting (leaves were cut at 4 months)

Keywords : Vetiver grass, improve low soil fertility