

# Study on economic benefits of different improvement methods for pangolagrass <sup>(1)</sup>

Jeng-Bin Lin <sup>(2)</sup> Shyh-Rong Chang <sup>(2)</sup> Chi-Hsin Lu <sup>(2)(3)</sup> and Tzu-Rung Li <sup>(2)</sup>

Received: Mar. 21, 2016; Accepted: May 30, 2016

## Abstract

The object of this study was to determine the efficacy of improving methods for perennial pangolagrass (*Digitaria decumbens* Stent.) pasture grown more than 10 years on slope of 30 degrees of hill side. The different cultured methods including discontinued and continued improvement will test on next year. The forage yield, quality and soil characters were evaluated after different treatments i. e., control (CK), organic fertilizer (800 kg/ha) with rotary cultivator (OFRC), rotary cultivator 1,600 rpm (RC), soybean (*Glycine max*) (80 kg/ha) with rotary cultivator (SRC) and sun hemp (*Crotalaria juncea* L.) (40 kg/ha) with rotary cultivator (SHRC). Chemical analysis of forage showed that the SRC and SHRC have higher crude protein as compared to other treatments for both two modes. No signification difference was observed among all treatments of both modes for soil properties. Although SHRC of discontinued modes produced the highest forage yield, 53.62 ton/ha. The highest net income was 143,836 NTD for SHRC of discontinued treatments. As considering the net income, the SHRC treatment of discontinued tillage would be recommended for pangolagrass pasture improvement.

Key words: Pangolagrass, Perennial pasture, Pasture improvement.

---

(1) Contribution No. 2458 from Livestock Research Institute, Council of Agriculture, Executive Yuan.

(2) Forage Division, COA-LRI, Hsinhua, Tainan 71246, Taiwan, R.O.C.

(3) Corresponding author, E-mai: chlu@mail.tlri.gov.tw.