The Nutrient Status for Forage Crops in Northeast Plateau

2. The Nutrient Status for *Panicum maximum* TD. 58 in Yasothon, Korat, Nom-Phong and Warin Soil Series.*

Kiat surak Bhokasawat 1/ Cherapattana Vongpipatana 2/
Wiruch Suksaran 1/ Sasilthon Thinnakorn 3/

Abstract

This pot experiment was conducted at Tung-Kula-Ronghai Animal Nutrition Station in Roi-Et in the Northeast to evaluate plant nutrient status for Guinea grass cv. TD. 58 grown in Yasothon (Yt), Korat (Kt), Nam-Phong (Ng) and Warin (Wn) soil series using the Omission trial technique arranged in Randomized Complete Block Design with 4 replication and 16 treatments for each soil series with nutrient rates being 16, 6.4, 16, 6.4 4, 0.8, 4, 0.8, 0.08, 0.64, 0.48 and 0.08 kg/rai (All) for N,P,K,Ca, Mg,Mn,S,Fe,B,Zn,Cu, and Mo respectively. Four experimental rates eg. O, All, 1/2 All and 2 All were used. On cutting, cut at soil level, was made at 45 days after planting date.

The results showed that for Guinea grass, both Yt and Wn soil showed severe deficiency in P and S with lesser degree for Fe in Wn soil. Also severe deficiency in P was observed in Ng soil but less severe for K, S and Zn. For Kt soil N and P were deficiency but not for Ca, Mn and Fe. In contrast application for these latter elements caused the decrease in dry matter yields of Guinea grass.

To obtain maximum yield and attain high content of nutrient at standard level for Guinea grass, following rates should be applied eg. 12.8 and 8 kg/rai for P and S for Yt soil; 32 and 12.8 kg/rai for N and P for Kt soil; 12.8, 3.2, 8 and 1.28 kg/rai for P,K,S and Zn for Ng soil and 12.8, 8 and 1.6 kg/rai for P,S and Fe for Wn soil.

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1/ Forage Crop Research Group.
2/ Animal Nutrition Laboratory Section.
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