Standard fresh pod yield and its quality of vegetable soybean using different composts cooperated with chemical fertilizers.

Sangla L.1, Suppadit T.2, Pintasen S.1 and Tongplew N.1

1/ Chiang Mai Field Crops Research Center (CMFCRC), Department of Agriculture, Nonghan, Sansai Chiangmai, Thailand
2/ The Graduate Program in Environmental Management, Faculty of Social and Environmental Development, National Institute of Development Administration, Bangkapi, Bangkok, Thailand.

email address :  laongdown.sangla@gmail.com
laongdownsangla@hotmail.com

Abstracts

Vegetable soybean cultivar AGS 292 was used to investigate the optimum type of compost cooperated with chemical fertilizer for its production. It was conducted at CMFCRC, Chiangmai, Thailand during May and October 2007 in early rainy season (mid May) and lately rainy season (late July). It used a randomized complete block design. Type of composts - corn straw, bagasse, floating mass, corn straw+floating mass (1:1) were used at the rate of 1,875 kg/ha cooperated with chemical fertilizers (formula : 8-24-24 + 13-13-12 + 30-20-10). Standard fresh pod yield, yield components, its quality, variable cost, and gross margin as well as soil and compost quality were measured.

In both seasons, it concluded that the application of floating mass as a compost cooperated with chemical fertilizer showed the highest standard fresh pod yield, owing to the highest standard pod/plant. Also, it gave the largest pod size, showing the lowest standard pod/kg. Although plant height, yield components, and protein content did not differ from other composts it showed the highest carbohydrate and oil content. When compared with other composts it showed the highest gross margin on account of the highest yield. After experiment, soil fertility of all treatments were better than before and yields were free from pesticidal residues.

Key words : vegetable soybean, compost, nutritional value