

10<sup>th</sup> Global Summit on

# Food Safety, Processing & Technology

December 05-07, 2016 San Antonio, USA

## Effect of *Jatropha curcas* L. press-cake and inorganic NP fertilizers on productivity of potato (*Solanum tuberosum* L.) and soil properties

Inyew Gizachew F

Haramaya University, Ethiopia

Low soil fertility is a major constraint to potato production in Ethiopia. A field experiment was conducted at rare research farm, main campus of Haramaya University in Ethiopia, during the main growing season of 2011 under supplementary irrigation to evaluate the effects of *Jatropha curcas* L. press-cake and inorganic NP fertilizers on the productivity of potato (*Solanum tuberosum* L.) and soil properties. The treatments consisted of four rates of *Jatropha* press-cake (0, 2, 4 and 6 t ha<sup>-1</sup>) and five rates of combined mineral N and P (0+0; 0+46; 50+0; 50+46; 100+92 kg N+P, respectively, ha<sup>-1</sup>) fertilizers. The experiment was laid out as a randomized complete block design (RCBD) in a factorial arrangement and replicated three times. Well sprouted medium-sized potato tubers of a potato variety named Badhasa were planted on 30th May, 2011 at the spacing of 75 cm between rows and 30 cm between plants accommodating approximately 44, 444 seed pieces ha<sup>-1</sup>. The plot sizes were 3.75 mx3.9 m. The distance between plots and blocks was maintained at 1 and 2 m, respectively. All agronomic and soil data were collected and analysis of variance was done. The results indicated that *Jatropha* press-cake along with mineral fertilizer significantly enhanced potato tuber yields and soil OM. Thus, from the results of the study, it could be deduced that 2 t *Jatropha* press-cake ha<sup>-1</sup> resulted in an optimum total tuber yield.

gibtan120@yahoo.com

## High rice imports as a threat to food security and a hindrance to sustainable rice production in Ghana

Ayisi Nyarko Daniel

Szent Istvan University, Hungary

**Statement of the Problem:** There is an observable trend of increased rice imports in Ghana to satisfy domestic consumption of the growing population annually. Many, if not all, the commercial rice farms that were established in the late 1960s and early 1970s have collapsed due to weak rice sub-sector policy. The main objective of this study is to analyse the extent to which Ghana depends on rice import to satisfy domestic food needs and how it affects domestic rice production. The study employed a case study by combining both quantitative and qualitative methods. The quantitative part of this study used secondary data from the databases of the Food and Agriculture Organization of the United Nations, the Ministry of Food and Agriculture, the United States Department of Agriculture, Index Mundi and other sources. A ten year domestic rice production, imports and consumption data were studied.

**Findings:** It was observed that, rice imports in Ghana outweigh its domestic production level; Ghana has a rice production deficit of 188 thousand metric tonnes. Also Government expenditure on rice imports stood at 500 million US dollars in 2014, which represented a 72.2% increase from 2005.

**Conclusion & Significance:** It was concluded that Ghana is food insecure in terms of rice consumption. Therefore, any decision by the leading rice exporting countries to ban or reduce the quantity of rice supply to Ghana may cause food shortage and hunger. It was therefore recommended that the government should allocate a quota to rice imports instead of increasing import tariff, more resources should also be allocated to domestic rice production to expand the current production levels and special incentives should be allocated to the youths to attract them into rice farming.

wonsign@gmail.com