Vegetal nutrition in tropical crops

Gloria E Arevalo de Gauggel
Zamorano University, Honduras

Within the tropics, there are marked differences in climate (temperature and rainfall) related to altitude and the influence of the temperature patterns of the Atlantic and Pacific Oceans and usually, within regions, a strong orographic effect. Strong differences in soil parent materials, besides the other four soil forming factors present challenges in plant nutrition of the great range of tropical crops. Each of these crops with very different nutrient demands. Among the most cultivated tropical crops are oil palm, bananas, plantains, coffee, sugarcane, cocoa, pineapples, potatoes, cassava, coconuts, corn, beans, rice, ornamental crops and forestry (indigenous and exogenous species). Most tropical countries base their agricultural goals in two very different aims: self-feeding and exporting agricultural produce to obtain most wanted income from wealthy markets. In such variety of soils, climates, crops and at the face of global warming and climate change, plant nutrition poses a great challenge to secure high yields and sustainable natural resources. Usually, small-farmers base plant nutrition programs on nitrogen, phosphorous and potassium applications without any soil or leaf analyses using traditional nutrient application rates. However, very significant yields have being obtained in the crops indicated previously by using soil and tissue analyses and applying the entire range of essential plant nutrients, irrigation, drainage and improving soil physical conditions that constrain nutrient up take. Large-scale plantations apply nutrients to the leaf based on soil, leaf and soil solution analyses. Plant nutrition technology is rapidly improving and expanding with higher yields.

Speaker Biography

Gloria Arévalo has completed her Ph.D. in 2015 from Almería University, Spain. She obtained her Master Degree in the National University of Colombia. She is Associate Professor of Soil Science and Plant Nutrition at Zamorano University in Honduras. She has over 200 publications and has been serving as an editorial board member of reputed Journals.

e: ggauggel@zamorano.edu

Notes: