

**EFFECT OF CALCIUM ON YIELD AND VISUAL QUALITY OF
GROUNDNUT (*ARACHIS HYPOGAEA* L.)**

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Low yields and the poor quality kernels are the major constraints to cultivation of Groundnut (*Arachis hypogaea* L.) in Sri Lanka. Groundnut is usually grown in well-drained soils with a pH of 6.5. Inadequate and unbalanced supply of nutrients may be one of the reasons for low yields in acidic and sandy soils. Farmers in Dambulla and Maspotha, apply 60-350 kg ha⁻¹ of Gypsum for their cultivations and obtained a yield of 2000-2500 kg ha⁻¹. Therefore, this study was conducted to find out the effect of Calcium using Gypsum on the yield and quality of Groundnut in Maspotha divisional secretariat area of Kurunegala district, Sri Lanka. Soil pH and EC were measured to determine the acidity and salinity levels. The field experiment was conducted during the *Maha* seasons 2011/2012 and 2012/2013. Randomized Complete Block Design was used with four treatments (0, 125, 175, 250 kg ha⁻¹ of Gypsum) in three replications. The crop management practices were done according to the standard procedures. The nut yield, number of pegs per plant, kernel and shell weight of fifty pegs per plot, dry weight of fifty seeds were measured. The seed quality and filling of seeds in each treatment were also evaluated. Data collected in 2011/2012 and 2012/2013 were analyzed separately. The climatic conditions of the two seasons were almost similar. The results revealed that application of 250 kg ha⁻¹ of Gypsum increased the soil pH from 4.1 to 5.0 and increased the mean pod dry weight per plot of 40 plants, from 578 to 835 g with better quality kernels.