Response of Virginia Market Type Peanut to Gypsum.


Peanut growers routinely apply gypsum to peanut to ensure optimum pod yield and market grades. The Virginia market type cultivar Gregory has the largest pods and kernels when comparing among Virginia market types that are grown commercially in North Carolina. Because this cultivar has a high requirement for gypsum due to its pod and kernel size, growers have expressed concern as to whether or not this cultivar needs gypsum at rates exceeding those typically recommended for Virginia market types. Research was conducted over five years at two locations to determine benefits of increasing the rate of gypsum from a 1.0X rate to a 1.5X rate (X refers to the standard rate recommended for commercially available products.) Additional treatment factors included the cultivars Gregory and NC-V 11 and two rates of potash (0-0-60 of N, P₂O₅, and K₂O) applied immediately to the soil surface after planting (0 and 280 kg/ha.) Although a trend for increased yield was noted when gypsum was applied, statistical increases in yield were noticed in only 2 of 10 experiments. However, increases in percentages of extra large kernels (% ELK) and total sound mature kernels (% TSMK) were noted in over half of the experiments. Increasing the rate of gypsum from 1.0X to 1.5X did not increase pod yield or improve market grade factors for either cultivar regardless of potash rate. Gregory was generally more responsive to gypsum than NC-V 11. In other experiments, applying a rate of gypsum that was half the recommended rate (0.5X) performed as well as the 1.0X rate in several experiments on research stations and in grower’s fields. Collectively, these data suggest that higher rates of gypsum than those currently recommended for Virginia market types are not necessary even for the large-seeded cultivar Gregory. Additionally, results suggest that in many instances a rate lower than that currently recommended will perform as well as the recommended rate.