

Examining Peanut Response to Photo-Intensity for Application in Speed Breeding

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Arachis hypogaea 'Bailey II' will be exposed to differing light intervals in order to examine whether photo-intensity has an effect on peanut pod set, seed count, and post-harvest germination percentage. Data will be utilized for application in a peanut speed breeding program, which aims to decrease time between generations, allowing for faster cultivar development and release. Using a blocked design, peanuts will be evaluated at 0, 200, 400, and 600 $\mu\text{mol}/\text{m}^2/\text{s}$ of additional light provided by two LG LED panels over each treatment. Four harvest intervals (70, 80, 90, and 100 days), will be employed in each treatment to see whether photo-intensity influences maturity.

Going forward, this research will enable better usage of time and space to develop germplasm for breeding and improvement.