

Studying Peanut Pod Development within a Controlled Microbial System

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Microbiome can influence the growth and stress response of a plant. Accumulating evidence indicate that microbes associated with peanut plants can be used for growth promoting and biocontrol. However, little is known about how microbiome affects the growth a peanut pod.

As a geocarpic plant, peanut pods grow in the same soil environment as roots do, which set an obstacle to distinguish pod-specific response to calcium deficiency from secondary responses derived from root physiology.

Here, we describe a “growth-in-tube” system to support the growth of individual pegs on a peanut plant. This system can be used to study pod development with controlled microbial community and nutritional conditions

Our primary goal is to investigate pod-specific response to calcium starvation and isolate bacteria that can improve calcium uptake/availability.