

Life Cycle and Fecundity of Peanut Burrower Bug, *Pangaeus bilineatus* Say (Hemiptera: Cydnidae), in a Growth Chamber

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The peanut burrower bug, *Pangaeus bilineatus*, is a sporadic but significant economic pest of peanut, *Arachis hypogaea* L., in the Southeast US. Both adults and nymphs cause damage directly to the peanut seed with piercing sucking mouthparts reducing seed quality and value. Although native to Texas and Mexico, this pest was largely of economic unimportance until around 2010 when the first major losses were reported in Georgia and Alabama. Little is known of the insect's biology and life cycle, therefore, a study is being conducted to determine the fecundity of female peanut burrower bugs, as well as, the time required for the bug to mature from egg hatch to imaginal ecdysis. For this study, 10 half pint sized Tupperware containers with screened lids will be used to house 10 mating adult pairs. Each container will contain 20 g of sandy loam soil, water (~15% VWC), and about 1 peanut/in² for feed. They will be checked daily for eggs, nymphs, and exuviae as proof of molting to differentiate stadia. Late stage nymphs will be matured to adulthood under isolation to ensure virgin status of mated pairs. Containers will be placed in a growth chamber on a 14:10 L:D cycle at a constant temperature of 28°C. Based on observations from rearing this species in laboratory, we expect the development to take about a month from egg hatch to imaginal ecdysis. We also expect females to be capable of laying many eggs and have multiple reproductive events in a lifetime.