Initial attempts to establish and develop a laboratory colony of walnut scale were made by collecting infested wood and bark strips from Modesto ash and walnuts in and near Sanger, Fresno County. The bark strips were then laid on or under banana squash and wild gourds held in controlled temperature boxes in the laboratory. Movement of crawlers from the infested material to squash or gourds was quite slow and erratic, even when shadow lines and fluctuating temperatures were utilized in the temperature boxes. Low numbers of crawlers were eventually transferred to new host material by mechanically loosening mother scales and then brushing or tapping the wood strips to dislodge eggs and crawlers. In addition to banana squash and gourds, several butternut squash were infested in this manner. Spaghetti squash was also tried as a lab host with no success. One complete generation of scale was obtained on banana squash and gourds, with new crawlers being produced in about 40 days at 27 ± 1°C, 5-9 hrs. light, and 30-50% RH. Crawler production from this first generation was again very low, and emergence occurred over an extended time. The second generation of walnut scale on squash and gourds appeared to start satisfactorily, but then began developing abnormally during the molting process and subsequent growth. Scale covers were not attached tightly to the host surface, and many covers were elongated similar to oystershell scale. Other covers were globular (teardrop) in shape. This generation has not yet matured and it is not known if new crawlers will be produced. To date, the establishment and development of a walnut scale colony for pheromone collections has not been satisfactory. Maximum efforts will be continued to establish a laboratory colony suitable for the proposed pheromone work.