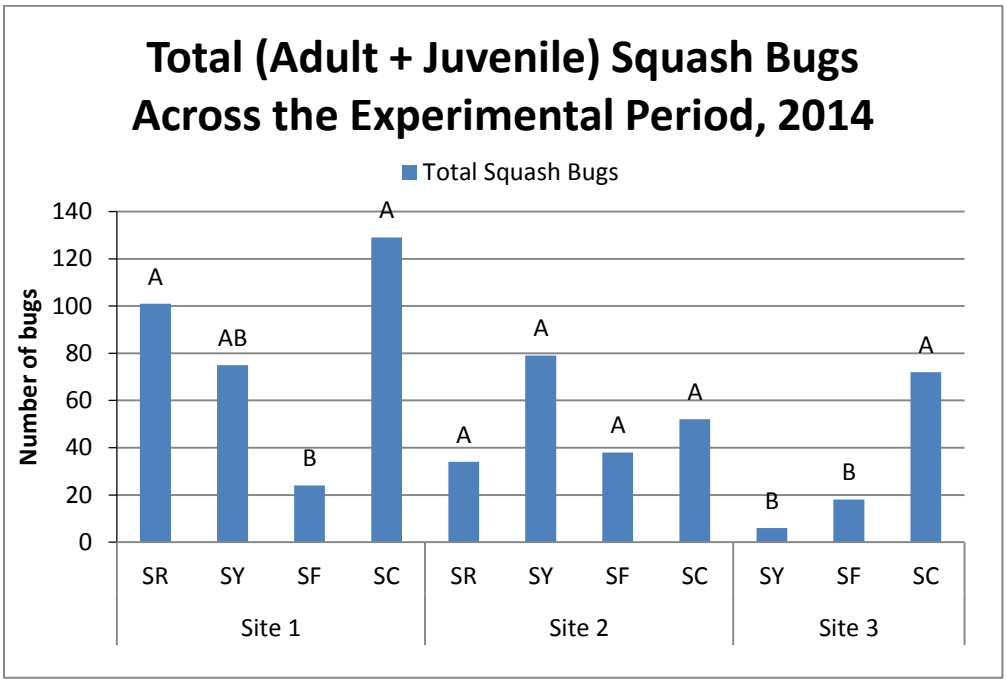
Trials were conducted in 2014 at three locations in Payne County, OK. Transplants of 'Lioness' summer squash were planted in the field between May 13-16, 2014 along with companion herbs as appropriate. Counts were made of squash bugs on the squash plants on 10 dates between May 24 and July 15. Squash were harvested regularly at all sites. Our treatments and some insect count results are shown below (locations have been given site codes).



SR = early-season vented row cover, no herbs
SY = companion planting with white yarrow
SF = companion planting with feverfew
SC = control, no row cover and no herbs
Within each site, means (depicted by bars) with the same letter do not differ according to the protected LSD, $P = 0.05$.

Companion planting with feverfew reduced total squash bugs compared to the control at two of three sites. Companion planting with white yarrow reduced total squash bugs compared to the control at one site. Plot-to-plot variation was high, making it difficult to detect statistically significant differences. Counts of adult bugs often were low, especially at Site 3, so differences were primarily due to juveniles. The row cover treatment failed at Site 3; excessive humidity developed under the covers and many squash plants died from the fungus *Pythium*. Squash grown with yarrow companion plants gave lower marketable fruit weights per acre than control squash at Site 3. Treatments (including row covers) did not affect squash yields in any other cases. Squash plants eventually overwhelmed herb plants in most cases, although herbs often survived. Further studies will be conducted in 2015. We did not expect complete control with the herbs. We hypothesized that companion planting would produce reductions in squash bug populations, or at least a delay in squash bug build-up on the squash crops.

Outreach: A demonstration/field day organized and led by the cooperating producers (with support from the project team) was held on-site on one of the producers' farms on July 7, 2014. Total attendance was about 30 and included producers, home gardeners, and other clientele. Results also were included in the 2014 Vegetable Trial Report (MP-164), edited by one of the collaborators (Dr. Brandenberger). This outreach publication, produced annually in January, is available both in hard copies and in electronic format at http://www.hortla.okstate.edu/research-and-outreach/research/pdfs/14vegreport.pdf/