

BREEDING IMPROVED PEST RESISTANT BLACKKEYES AND OTHER COWPEAS

Phillip A. Roberts, Department of Nematology

UC Riverside

Phillip.roberts@ucr.edu

(909)787-4222

Our activities at Shafter Research and Extension Center (SREC) support our Blackeye/Cowpea breeding program at UC Riverside whose goal is the development of improved, pest resistant cultivars of blackeye -type and other new types of cowpea for California growers. Cultivars with improved yield potential grain quality and resistance to root-knot nematodes are needed for California growers to remain profitable in the face of high land and input costs, anticipated restrictions on the use of insecticides and increasing competition from other states. SREC provides a representative environment to select for yield potential and grain quality characteristics relevant to San Joaquin Valley growers. At SREC we grow nurseries of blackeye/cowpea breeding lines developed at UC Riverside and select promising lines, conduct replicated small plot grain yield evaluations of advanced breeding lines, and conduct large-scale strip trials of potential new varieties. Tests at SREC helped us to identify two blackeye breeding lines, 03Sh-49 and 03Sh-50, that were tested in large-scale grower strip trials in 2005 and 2006; one or both of these is likely to be released in 2007.