Burt (4) found that of over 20 chemical treatments applied pre-emergence to soybeans on sandy soils at Gainesville, Florida, 8 pounds per acre of the sodium salt of PCP gave the most satisfactory weed control without crop injury. Isopropyl *N*-(3-chlorophenyl)carbamate (CIPC) also gave excellent control of annual weeds at 9 pounds per acre, but presented the hazard of occasional crop injury. Ethyl *N,N*-di-*n*-propylthiolcarbamate (EPTC) at the 5 and 10 pound rates responded similarly. Previously, Burt (2) had tested both CDAA and CDEC. Although he found they were well tolerated by soybean plants, they gave an erratic weed control response on his light soils.

Peters *et. al.* (7) also obtained outstanding results with the sodium salt of PCP on their silt loam soils in Missouri. In their trials, CIPC and DNBP produced severe injury, while CDAA failed to give satisfactory weed control.

On loam and loamy sand soils in Delaware, Indyk (6) obtained good responses with the sodium salt of PCP, CDAA, and CDEC, and with mixtures of PCP with CDEC and with the isopropyl ester of 2,4-dichlorophenoxyacetic acid (2,4-D). He agreed with Burt that PCP should be recommended for commercial use, pending the establishment of residue tolerances and registration.

A research program to develop means of practical weed control in soybeans on Florida's organic soils was initiated at the Zellwood Farm of the Central Florida Experiment Station during 1956. Use of herbicides, alone or coupled with mechanical cultivation, was studied in all experiments. First stage tests consisted of observational trials wherein several selective herbicides, including the newer chemicals as they appeared, were screened to detect their activity on the weeds and soybeans. In the second stage trials, herbicides appearing superior in the screening trials were used in replicated plots to study their influence on crop yields. The third stage trials involved large scale testing in commercial fields. The results and conclusions from these experiments are presented in this bulletin.