

small plot work. The delivery rate, using Teejet number 8001 nozzle tips, 25 pounds per square inch pressure at the boom, and 2.7 miles per hour tractor speed, was approximately 24 gallons per acre.

During the first six weeks, until lay-by time, the check plots were cultivated and hand hoed as needed to keep them free of weeds. Treated plots were left untouched until that time, then the whole experimental area was given a single cultivation. Soil moisture during this period was moderately high. Rainfall, shown in Table 4, averaged 1.46 inches per week for this six-week period. Experiment 58-2 was designed similarly, using only two varieties, Lee and CNS-4. The Jackson variety was omitted, since it appeared to be poorly adapted to these organic soils. The beans were seeded in rows 36 inches apart at the rate of 1 bushel per acre on July 17, 1958. Each of the three replications were split into two variety strips. These in turn were composed of nine randomized treatment sub-plots four rows (12 feet) wide by 21 feet long. Because of its favorable action in the screening trials, CDEC was tested in addition to the three herbicides used during 1957. Making up the nine treatments were two rates of each of the four chemicals plus the check, which again was hoed and cultivated. In this 1958 experiment, CDAA was used at 4 and 6 pounds per acre, CDEC at 4 and 6 pounds per acre, EPTC at 8 and 12 pounds per acre, and PCP at 8 and 12 pounds per acre. The treatments were applied one day after planting pre-emergent to both crop and weeds. The same equipment and procedures were used as in 1957 except that the nozzles were assembled with number 8002 tips delivering 35 gallons of spray per acre.

Weed control and crop tolerance responses to the treatments in these secondary tests were observed and recorded using the same rating scales described for the primary evaluation trials. In addition, single 16-foot plot rows were harvested and threshed during late November of each year. The beans were then taken to Gainesville, where they were cleaned, brought to a uniform moisture content, and weighed to the nearest gram. The yields were calculated in bushels per acre.