

### **Performance of *Cajanus cajan* (Pigeonpea) varieties intercropped with *Zea mize* (Maize) in the uplands of the dry zone of Sri Lanka**

Intercropping experiments conducted previously have shown that pigeonpea (*Cajanus cajan*) is one of the best crops to intercrop with maize (*zea mize*) during Maha season. Though there are several varieties of pigeonpea available for cultivation as a sole crop, no information is available on their suitability for intercropping. During the Maha 1995/96 and Yala 1996, four pigeonpea cultivars, ICPL 2, ICPL 84045, ICPL 87 and MPG 537, were tested by intercropping with early maturing (90 days) maize variety (Aruna) at the Field Crop Research and Development Institute to identify the suitable pigeonpea cultivars for intercropping.

The experiment was conducted during Maha season under rainfed conditions and repeated during the yala 1996 season under irrigation, in a randomized complete block design. The comparison was made by including pgeonpea and maize sole crops. Maize was planted at 120 cm x 25 cm spacing (40,000 plants/ ha). Two rows of pigeonpea were intercropped in between two maize rows at 40 cm apart to maintain 111, 111 plants/ ha.

Results showed that yield performance of pigeonpea variety and maize under intercropping conditions varied with the season. Yield of both crops have been reduced due to intercropping. The overall yield reduction in maize due to intercropping was 24 and 55% for Maha and Yala seasons respectively. Yield of intercropped pigeonpea was significantly reduced ( $P=0.05$ ) only during Mahaseason. However, in both seasons, yield of intercropped pigeonpea varieties showed similar yield trends under both intercropped and sole crop conditions.

This suggests that varietal selection for intercropping could be done based on the yield performance under sole crop conditions, and therefore, any pigeonpea variety with high yield potential can be selected for intercropping with maize.