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THE PERFORMANCE OF IMPROVED COWPEA (Vigna unguiculata (L.) Walp) VARIETIES IN ALECTRA-INFESTED FIELD AT SAMARU

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ABSTRACT

Cowpea is a major plant protein source that is being threatened by *Alectra vogelii* in northern Nigeria. Control of the parasitic weed by the various traditional methods is far from being adequate. The use of plant resistance may by the most feasible method of checking the menace of this weed. Two series of evaluation involving 35 IITA dual-purpose varieties, 2 IAR varieties and a local check were carried out in 1999 and 2000 at Samaru. The trials in each series were conducted on Alectrainoculated field. All the varieties (including Dan– ila in series II) consistently reduced Alectra incidence and severity, except SAMPEA-6 and SAMPEA-7 in both series, IT89K-288, IT81D-994 and IT95K-1093-5 in series I and IT96D-733 and IT90K-82-2 in series II. Varieties ITD-994, IT93K-596-9-2. IT93K-513-2 and SAMPEA-6 in series I and ITD96-733 and IT95K-1090-12 in series II, consistently resulted in high seed yields, and these were significantly greater than the least in the series. High yield corresponded with high crop vigor. The good performance of ITD-994 and IT96D-733 despite the high levels of infestation portrayed the varieties as being tolerant to Alectra, while IT93K-596-9-2, IT93K-513-2 and IT95K-1090-12 are likely resistant since they depressed *Alectra* and gave high seed yields. Generally, the relationships between *Alectra*-ralated parameters and seed yield in series I and crop vigor score in series II were insignificantly negative.

Keywords: Performance, cowpea, improved varieties, *Alectra*