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Identification of new sources of resistance to *Striga gesnerioides* in cowpea *Vigna unguiculata* accessions

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dc.description.abstract	The parasitic weed, <i>Striga gesnerioides</i> , is a major threat to cowpea productivity throughout the savannas of West and Central Africa. The identification of sources of <i>S. gesnerioides</i> resistance and their incorporation into breeding programs would be a beneficial strategy to combat the devastation caused by the parasite in cowpea fields. In this study we examined one hundred and ninety-four (194) accessions, four commercial varieties and two controls collected from a mini core collection of cowpea held at the International Institute of Tropical Agriculture genebank for resistance to <i>S. gesnerioides</i> race 3 (SG3), the most prevalent race in Nigeria, using phenotypic screening and molecular marker analysis. Our studies identified two cowpea accessions, Tvu-1272 and Tvu-16514, that are resistant to <i>S. gesnerioides</i> SG3. Resistance in these lines is associated with the molecular marker SSR1, known to segregate with the gene conferring resistance to SG3 in the cultivar B301. Phenotypically, resistance in Tvu-1272 and Tvu-16514 is expressed as a hypersensitive response at the site of infection on the roots. Allelism tests indicated that the gene that conferring SG3 resistance in Tvu-1272 is independent of that conferring resistance in B301. Tvu-1272 and Tvu-16514 will provide additional new sources of resistance to <i>Striga</i> and races prevalent in Nigeria.	en_US
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