

OUTCOME

Apply MAS to achieve food security by breeding *Striga* resistant varieties in cowpea

Specific objectives

- Identify sources of resistance - 108 varieties tested in *Striga* hot-spots
- Implement participatory farm selection
- Introgress *Striga* resistance genes into farmers preferred varieties (MAS & backcrossing)

MATERIAL & METHODS

- Identification of breeding priorities through a Participatory Rural appraisal (PRA)
- Screening for identifying adapted and *Striga*-resistant varieties (ASRV)
- Develop a MAS protocol for breeding ASRV
- FTA cards + AFLP SCAR markers + back-cross breeding
- genetic materials :
- MAS parents, F₁, BC₁F₁s to BC₄F₂s (on-going)
- Allelic relationships : F₂s (on-going)

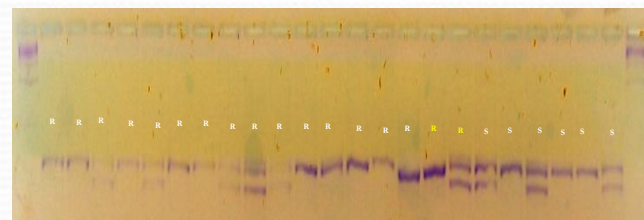
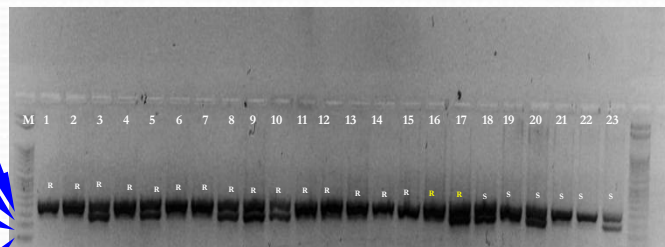
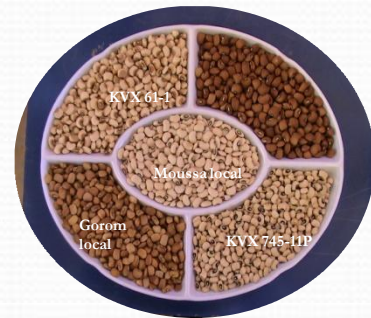


Financial & technical partners

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Kirkhouse TRUST

RESULTS

- Farmers' preferred traits for cowpea (Moussa local)
- Big grain size (18-20 g/100 grains)
- White testa
- Brown to black hilum



1:124-51 6:643 11:974 16:771-9 21:Nilie.p.s.GB
23:Woungo-1 7:2089 12:58-37 17:578-33-2 22:2000
3:5249 8:8381 13:Gouom 18:Moussa 23:14-22-2
4:849 9:14676 14:HTR 19:3236
5:205-8 10:693-2 15:31 20:4-52D
2% agarose gel profile using primer Mahse-2 at 50° with 23 varieties - migration after 120 mn ; 27-02-2009

R: Resistant line S: Susceptible line

Conclusion

The polymorphism of band depends on the genetic background:

The resistant lines 3, 5, 8, 9 & 10 showed a polymorphisms with susceptible lines 19, 21 & 22; The resistant lines 1, 2, 6, 7, 11-16 showed polymorphisms with susceptible lines 18, 20 & 23

Research team

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Stakeholders & collaborators

Projects & NGOs: LVIA, PDRDP/BK, PAD, Africare, Voisins mondiaux, PDIs, DANIDA, CREDO, Cathwel, PDL, PRDR/SO, DIOBASS, MAERH, CREN
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MAS & participatory breeding to speed the selection process in cowpea