Project for the re-launching of the cashew sector in Nampula province, Mozambique

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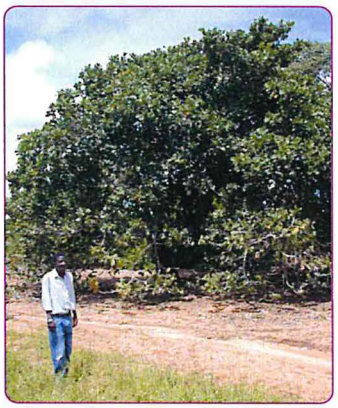
Project objectives

Raw cashew nut production in Mozambique peaked at 216,000 tonnes in 1972 before falling to less than 22,000 t in 1989/1990. Current production is between 56 000 and 60 000 t. The aim of the project was to accompany the re-launching of cashew production.
A review of the situation was followed by the undertaking of various research, development and training actions.



Support for development actions

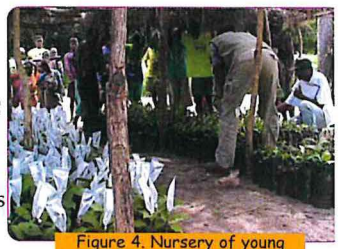


Figure 4. Nursery of young cashew seedlings for use in setting up multisite trials.

– Training of technicians and farmers (agrotechnics and nurseries).

– Supply of plant material for nurseries and support for the setting out of clone gardens (Figure 4).

– Setting up multisite demonstration trials.

Figure 1. Chemical spraying to control powdery mildew.

Applied research programme

Phytosanitary protection

• Disease control

Control of powdery mildew disease (Figures 1 and 2):
– replacement of triazoles, in particular by FLINT (trifloxistrobin),
– demonstration of the effectiveness of low-cost generic triazoles,
– integrated control.

Control of anthracnose:
– development of a method for the evaluation of the degree of infestation by the disease (Figure 2),
–performance of fungicide trials using:
• FLINT (trifloxistrobin): high efficacy,
• ORTIVA (azoxistrobin): good efficacy
• SCORE (difenoconazol).

Figure 2. Cashew shoots attacked by anthracnose and powdery mildew.

FLINT has the twin advantage of excellent efficacy in the control of powdery mildew and anthracnose.

• Pest control

Control of *Helopeltis* sp., Miridae (Figure 3), the main pest, and *Pseudoterapus waii* (Coreidae):
– chemical control is possible [Karate (lambda-cyhalothrin)],
– biological control to be developed using ants *Oecophylla* spp.

Varietal selection

– Selection and monitoring of local clones using the criteria of number of inflorescences, nut and kernel yields and tolerance/resistance to powdery mildew, anthracnose and *Helopeltis*.
– Multisite genotype-environment trials in three provinces (64 clones tested).
– On-farm behaviour trials (common and dwarf types).
– On-station monitoring of 140 clones.

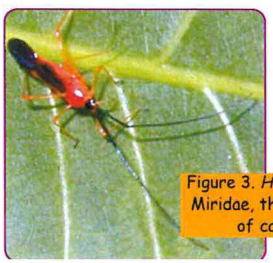


Figure 3. *Helopeltis* sp., Miridae, the main pest of cashew.

Training national researchers

– Training in Brazil (EMBRAPA) of a genetic engineer (varietal improvement).

– Training in Tanzania (NARI) of an engineer level entomologist.

– Special relations with NARI (National Research Institute of Naliendele, Tanzania).

Conclusion

All the research results obtained or to be improved are aimed at enhancing integrated management of cashew by the transfer of production technologies to farmers in Mozambique by means of various actions:
– the rationalised use of fungicide to control powdery mildew disease,
– phytosanitary pruning to reduce inoculum sources,
– biological control of *Helopeltis*,
– field cleaning,
– control of bush fires,
– planting good quality grafted seedlings,
– selective elimination of unproductive trees,
– top grafting practice,
– intercropping with annual crops,
– setting up and managing community or private nurseries.

CIRAD
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