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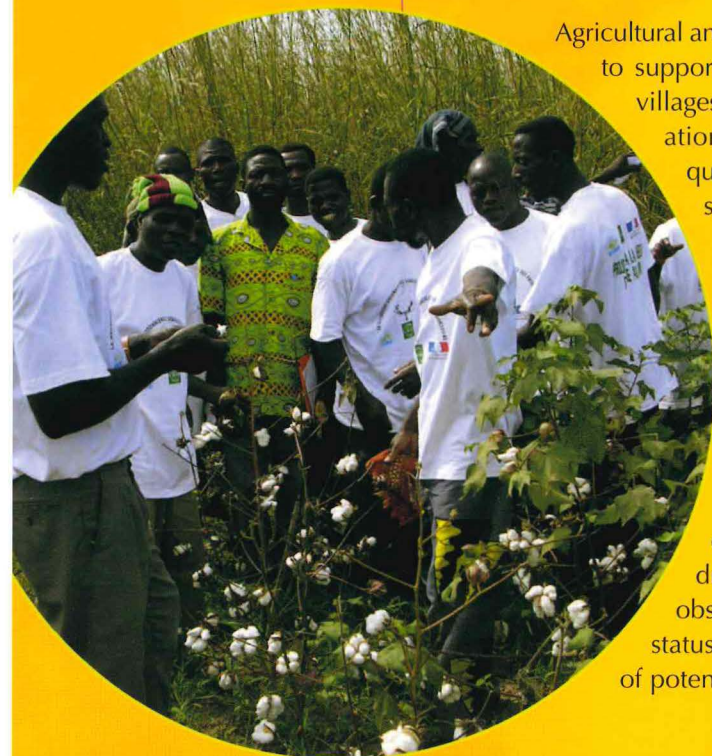
Participatory research— bridging the gap between farmers and scientists

CIRAD is now supporting institutional changes in cotton subsectors through its involvement in participatory activities in closer collaboration with farmers. Several programmes have been under way with the national agricultural research institute in Benin since 1996, and with the agricultural research directorate in Paraguay since 2000. Research, cooperation and training systems are being tested through these programmes. They are designed to bind ties between scientists of national agricultural research systems and farmers who benefit from the research.

Agricultural analysis and farmer field schools in Benin

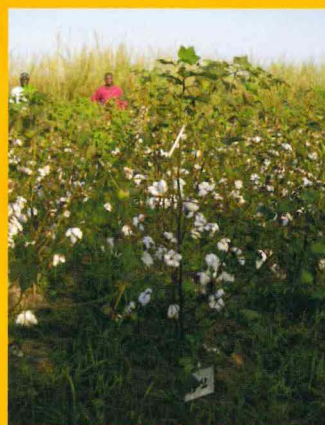
Agricultural analyses are being carried out within the framework of PARCOB (project to support cotton research in Benin) on 250 farmers' plots in 10 different villages to assess the complex relationships between farmer's cropping operations and cotton production results (seed cotton yields and fibre quality). In the northern provinces of Benin, the number of bolls per surface area is the key yield component, as mainly determined by the sowing date and extent of crop protection.

The combination of farmer field schools and this type of field performance analysis provides a very effective training tool. It can be used to detect and classify problems facing farmers, while instructing them on adopting a rational and responsible attitude concerning crop protection, etc. The group training sessions conducted in farmers' fields could thus involve cultivating healthy plants, monitoring insect populations and distinguishing the action of beneficial organisms. The farmers are then asked to make drawings illustrating certain aspects of the life cycle of cotton plants, observed damage or pests, and insects present (sometimes of unknown status). These drawings can spark group discussions on the suitability of potential pesticide treatments.

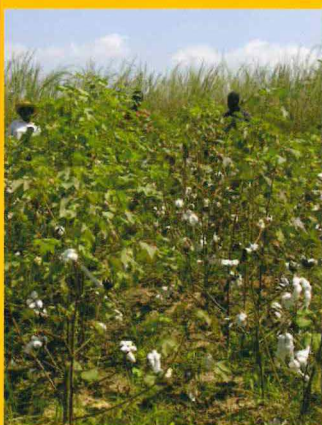


A group of farmers evaluating new lines
in a varietal trial.
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Participatory breeding and assessment in Benin and Paraguay



Okpara 3-4 line, highly rated by farmers.
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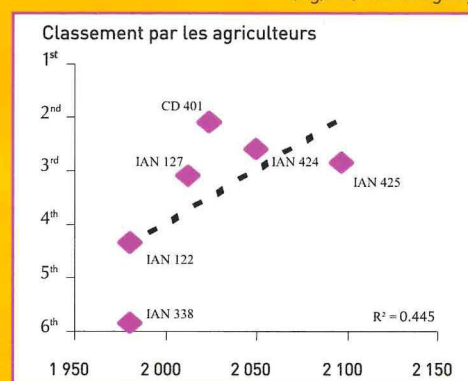


Savalou 4-33 line, rejected by farmers.
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In Benin, the decentralized cotton breeding programme has highlighted that farmers are able to carry out field breeding initiatives that are as relevant as those managed by scientists, but laboratory breeding is still essential for assessing quality criteria. In the light of these promising results, cotton farmers' organizations have taken over the programme and are enhancing the sustainability of the system and broadening its scope.

In Paraguay, cotton farmers have been formally associated directly with the evaluation of cotton varieties prior to their release, and highly involved in the testing. They validated a so-called "base-satellite" design to analyse the results of multi-location assessments under controlled conditions in terms of information supplied by a network of farmers who have actually cropped these varieties in their fields.

Farmers' classification of six cotton varieties relative to the seed cotton yield (kg/ha) in Paraguay.



An approach that makes sense

The results of these experiments in Benin and Paraguay highlight the relevance and effectiveness of a participatory approach to cotton research. They show that such mechanisms can bind links between research and users while boosting confidence at a time when the subsectors are threatened by the shutdown of cotton companies.

For further information

Lançon J., Lewicki S., Viot C., Djaboutou M., Cousiño J.C., Sêkloka E. 2006. Recréer du lien dans les filières cotonnières : la sélection participative au Bénin et au Paraguay. *Cahiers Agricultures* 15 (1): 92-99.

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Deybe D., Vaissayre M., 2000. Are farmer field schools an appropriate training tool for integrated pest management? The case of rice farmers in Indonesia. CIRAD, Working paper 46, 12 p.

Partners

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