



**AFRICAN UNION**  
Semi-Arid Africa Agricultural Research and  
Development (AU/SAFGRAD)

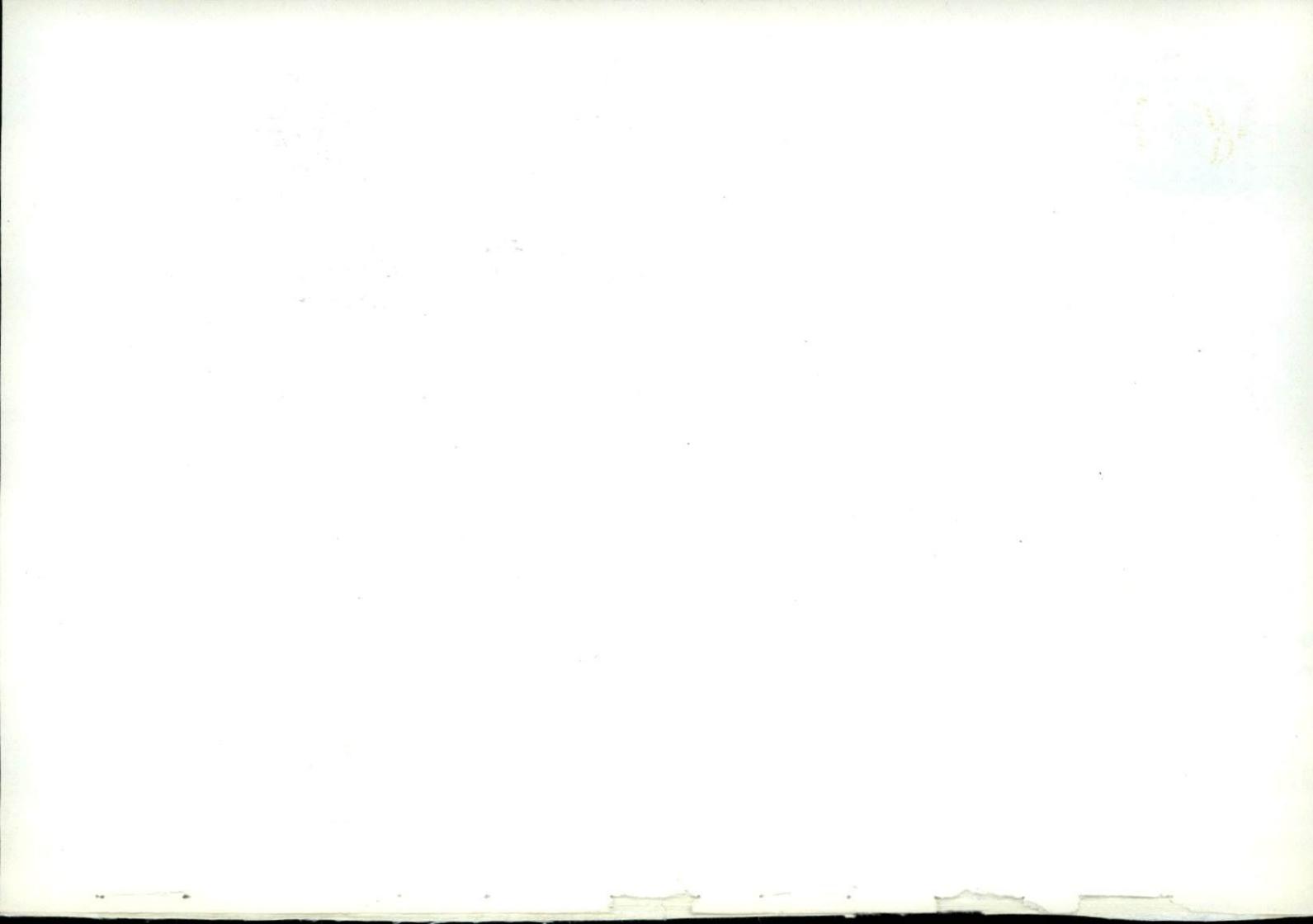


## **Scientific Monitoring Tour of the Collaborative Striga Research and Control Program in Africa 2007**



**Funded by the Government of the Republic of Korea through the  
International Agricultural Research Institute (IARI) of Kyungpook  
National University and the African Union through SAFGRAD**

**Ouagadougou, February 2008**



## About SAFGRAD

### **T**he Semi-Arid Food Grain Research and Development of the African Union (AU/SAFGRAD)

was established in 1977 to advance agricultural research, development and natural resource management in the semi-arid ecology in more than 30 countries in sub-Saharan Africa. For more than three decades AU/SAFGRAD has mobilized scientific talents and resources of National Agricultural Research Systems and those of International Agricultural Research Centres (IARC's) to enhance food security and sustainable agricultural development in semi arid zones of Africa.

Today, as a specialized office within the department of Rural Economy and Agriculture, SAFGRAD efforts are garnered toward the support in the implementation of African agricultural agenda as embodied in the CAADP, the Sirte Declaration with an emphasis on semi-arid zones. SAFGRAD has revitalized and broadened its programs to respond to the challenges of production increase, poverty alleviation, protection of the environment and mitigating the effect of climatic change. SAFGRAD seeks to enhance livelihoods in the semi-arid areas through :

1. Facilitation of demand-driven research with the view to

increasing production and productivity of land and water. This includes the packaging and dissemination of more productive and environmentally friendly technology packages.

2. Facilitating access to production and financial services
3. Facilitate linkage of production to local and export markets as well as the transformation of produces into value added products.

The main thrusts of SAFGRAD's program are to :

- i. Enhance agricultural research and demand/access of research outputs of member states through capacity building;
- ii. Facilitate addressing agricultural policy issues through conferences, workshops, symposia and governmental contacts ;
- iii. Facilitate the industrial transformation and utilization of food grains into value-added products;
- iv. Promote productive agriculture and environmental conservation through an integrated farming systems ;
- v. Build the knowledge base on semi-arid agriculture in SSA through its publications, specialized seminars etc.

## EXECUTIVE SUMMARY

In 2007, monitoring tour was carried out to four countries viz. Burkina Faso, Mali, Ghana and Benin Republic. Dr. Victor Adetimirin visited Burkina Faso and Mali while Dr. Charles The visited Ghana and Benin Republic. For the visit to Fada N’Gourma in Burkina Faso, Dr. Mahama Ouedraogo accompanied Dr. Victor Adetimirin. Monitoring tour to Nigeria and Cameroon could not be undertaken because Dr. The was away from Cameroon for visit to other countries, while the

passing away of Dr. Ibrahim Kureh disrupted the planned visit to northern Nigeria. As at the time the monitoring tour was being undertaken, striga control activities in the derived savanna of Nigeria being coordinated by Prof. S.T.O. Lagoke were already completed.

The on-farm striga control activities carried out included seed multiplication of legumes viz. soybean and cowpea to ensure sustainability of the legume-maize intercropping /rotation technology, seed multiplication of STR maize varieties, on-farm and on-station varietal trials, on-farm rotation and intercropping of STR maize varieties with legumes capable of stimulating suicidal germination of striga seeds, farmers’ field school and farmers’ field days.

The monitoring tour was somewhat late by 3 to 4 weeks in Burkina Faso and Mali but appears timely in Benin and Ghana. The four national

programmes acknowledged that for 2007 funds for the implementation of the project was released on time by SAFGRAD, although within the national programme in Mali some internal problems with account designation caused a little setback. In general, trials in Burkina Faso and Mali were planned late as a result of the lateness in the commencement of the rains. This was further compounded by the short duration of the rains which in some parts of the two countries did not exceed 4 to 5 weeks contrary to widely publicized forecasts that the rains would continue till November. The effect of the drought was apparent on the legumes as well as the maize.

In several places, even sorghum was severely affected. Farmers showed enthusiasm to continue to participate in the various activities having found an ally in SAFGRAD in the fight against the scourge called striga. The

involvement of farmers in the production of seeds of cowpea, soybean and STR maize varieties in the two countries is commendable and would ensure the sustainability of the technology being promoted. In subsequent years, it is advisable to establish trials as per recommended planting dates. Indeed, years when rainfall is late in getting established its continuation till November cannot be guaranteed to ensure a

good crop. Regional initiatives must ensure better weather forecast for increased sustainability.

For proper planning, it is desirable that project implementing scientist in various countries provide SAFGRAD with their planting schedule immediately after the commencement of the season. This should also include a summary of the various activities carried out. In subsequent years,

the timing of the monitoring tour should be earlier than it was this year in Burkina Faso and Mali. Contrary to earlier plans, the monitoring tour did not include the countries being proposed to join the project. It is noteworthy that the project is complementing other projects that are aimed at increasing farmers' productivity and ensuring food security.

**Table  
of  
contents**

ABOUT SAFGRAD	2
EXECUTIVE SUMMARY	5
TABLE OF CONTENTS	7
INTRODUCTION	9
BENIN	11
GHANA	15
BURKINA FASO	17
MALI	25
CONCLUSION	29
LIST OF PARTICIPATING INSTITUTIONS	31

## INTRODUCTION

The monitoring tour is an integral and vital component of the Collaborative Research and Striga Control Program funded by the Korean Government and AU/SAFGRAD. Apart from serving to oversee the judicious use of allocated funds, it serves to provide opportunity for implementing scientists to share the various challenges (technical, socio-economic, cultural and logistic) confronting them with other scientists and striga experts. It provides the unique opportunity of

brainstorming on those challenges with the overall objective of seeking ways to overcome them, especially when technical.

To date, two monitoring tour strategies have been used in the project. The first involves the constitution of a monitoring tour team (made up of Drs The and Adetimirin - the two consultants, Dr. Mahama Ouedraogo and one or two other experts) that would visit each of the countries participating in the project. For this, the monitoring tour takes about two to three weeks. This strategy has been used only for two years in the lifespan of the project, perhaps due to cost considerations because of the number of people making up the team. The second approach involves each of the two consultants visiting about two to three countries and writing reports which are thereafter compiled as the monitoring tour report. A variant of the

latter method which has been tried in one or two years involves asking implementing scientists to join one of the two consultants in the monitoring tour of countries other than theirs. This approach has also been proposed for the countries that are now joining the project afresh. To a large extent the monitoring tour for 2007 was done by one consultant in each of the four countries; Benin and Ghana were visited by Dr. The while Dr. Victor Adetimirin visited Burkina Faso and Mali.

Reports presented by the two consultants indicated considerable differences in the level of execution of the project in the countries visited. Based on the experience from the monitoring tour in 2007 and previous years, there is the need for properly planned field trips by host scientists to avoid the kind of difficulties in travel conditions experienced by Dr. Charles The in his effort to reach the northern part

of Ghana from Accra. It should be clear to scientists executing the project that monitoring activities in their respective countries are mandatory. There is no compelling need for a monitoring tour to be embarked upon in a country where harvesting has been done as was experienced in one country. Proper liaison between

the visiting scientist and the host, with SAFGRAD duly copied, should take place well in advance of planned trips so that the former would be well apprised of what to expect in the country being visited.

Planning of monitoring tours is usually complicated by the differences

in the time of planting in the various countries but this problem can be overcome if planting dates in the different countries are provided to SAFGRAD early enough. A properly planned and well-executed monitoring tour remains one of best strategies for strengthening the execution of the project.

## BENIN

(26 September -  
02 October, 2007)

On-farm activities conducted by Dr. Gualbert Gbehounou and his team were visited by Dr. Charles The to evaluate the implementation of the striga control activities under the project as well as to interact with farmers and scientists in the Country. On arrival in Cotonou in the morning of 26 September, Dr. The had to wait at the airport for three hours before being directed to proceed to the Guest House administered by Catholic Nuns. Dr. The, together with Dr. Gbehounou commenced the field

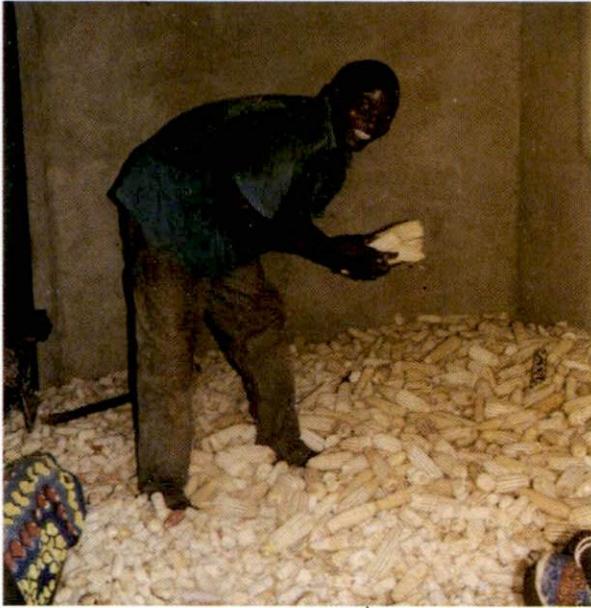
visit on 28 September with a long drive to Natitingou which took the entire day.

The team visited some activities at the Pehunco Sector of the country. The most important activity here was the visit to a farm owned by Mr. Madougou, a former participant in a field school previously conducted under the Korean government-SAFGRAD Striga Control Program, in Sayakorou village. At the time of the visit the farmer was engaged in activities involving another project (PSAIA – Project Special de Securite Alimentaire par l'intensification Agricole) which aims at attaining food self-sufficien-

cy by providing farmers with seeds and fertilizers. The farmer had 2 hectares of Across 94 TZE under his own management. His preference for this variety was because of its earliness and tolerance to striga. PSAIA is involved in community capacity strengthening by providing to rice growers lowland hydro-management expertise for intensification. In addition to the field managed by the farmer, there was another adjoining 0.5 ha of maize and 0.5 ha of soybean being used for on-farm demonstration by PSAIA. Other activities being promoted by PSAIA includes the rearing of small ruminants and



Showing members of a farmer's field school with Dr. The in Kika



**Mr. Zime – a farmer proudly presenting his harvested maize.**

QPM seed multiplication as well as the facilitation of access to credit facilities. Also at Sayakorou village a farmer who told the team he had about one hectare under maize was visited. The maize was already harvested was being shelled at the time of the visit. Based on the good performance of his crop, the farmer expressed optimism of obtaining up to 20 bags of grain. The farmer was encouraged to participate in intra- and inter-village visits to share experiences and well as to share or sell improved seeds

to other farmers.

At Tissourou I and Tissourou II, the team visited Cathy Namle who had a farmland measuring 40 m x 50 m being used for the multiplication of two varieties (Jupiter and a local variety) of soybean to be used for the trials in 2008. At the time of the visit, the two varieties were almost at maturity. In the same village, the team also visited another 0.125 ha planted to ACR TZE-Comp5-E for seed multiplication. The plot was planted very late

and very poor yield was expected from it.

The team also visited Kika village where about 0.5 ha of maize was being cultivated by participants of the farmers' field school consisting of 19 women and 2 men. The maize variety on the field was Across 94 TZE-Comp5 W which showed high levels of contamination. Finally a sorghum variety transplanting trial was visited; this consisted of two treatments viz. direct seeding and transplanting. The objective of the trial

was to show that sorghum transplanting could result in lower striga plant infestation. Although fewer striga plants were observed on the plot where sorghum was transplanted, the beneficial effect of transplanting on the host crop was not evident.

It could be concluded that activities conducted for the Korean government-SAFGRAD project were not sufficient. More activities such as variety trials, rotation and/or intercropping were expected. No attempt was made to ensure that good quality seed was

produced by farmers. Another limitation was that all the demonstration trials were concentrated in the same area which did not show a high level of striga infestation.

## GHANA (3 - 8 October, 2007)

For the visit scheduled between 3 and 8 October, Dr. Abdulai could not be reached from Benin one week ahead. Consequently, no indication was provided for Dr. The as to lodging in Accra and guidance in respect of the trip to Tamale. Dr. The commenced his trip to Tamale on 4th October, the day after arrival in Accra and encountered enormous difficulties. Arrival in Tamale was at 2.00 am in the morning of 4th October at which time he tried to secure accommodation. It was

very difficult reaching the executing team in Ghana even after making a trip to Nyankpala Station of SARI. At the time of the visit, the information provided was that all the trials, with the exception of the one at Nyankpala had been harvested. It was only on 7th October that a visit to Nyankpala station was organized and the activities visited were located at the research station. The activities comprised :

- i) A 30 x 20 seed multiplication plot of Across 97 TZL Comp 1 STR using bulk sipping of selected ears.
- ii) Maize demonstration plot with four varie-

- ties viz. IWD-STR, Aodji, Suwan-1 SR and GH 120DYF.
- iii) A 40 x 100 m plot planted to a Syngenta BC 418B hybrid maize.
- iv) Micronutrient maize materials for the 'Harverst Plus' programme
- v) Trial involving 100 lines of a local maize variety.
- vi) Popcorn multiplication plot.

Potential users of maize seeds were also met. Beside the seed multiplication plot of Across 97TZL Comp 1-W STR, and the maize demonstration plot, the activities



visited were really not part of the SAFGRAD-funded activities. It was also observed that the seed multiplication conducted by bulk sibbing of selected ears would not yield enough seed for 2008 activities. Dr. Abdulai expressed regret at the lateness of the ti-

ming of the monitoring tour and went ahead to describe activities which could have been visited. These, according to him, included 54 on-farm rotation demonstration trials where the maize cultivar Across 97 Comp 1-W were planted adjacent to soybean for rotation in

the 2008 cropping season. Dr. Abdulai also indicated that the breeder seed to be used in 2008 will be produced during the off-season using irrigation. The meeting ended with a courtesy visit to the director of SARI, Dr. A.B. Salifou•

## **BURKINA FASO** *(24 - 27 October, 2007)*

### **Visit to Fada N'gourma by Drs. Mahama Ouedraogo and Victor Adetimirin**

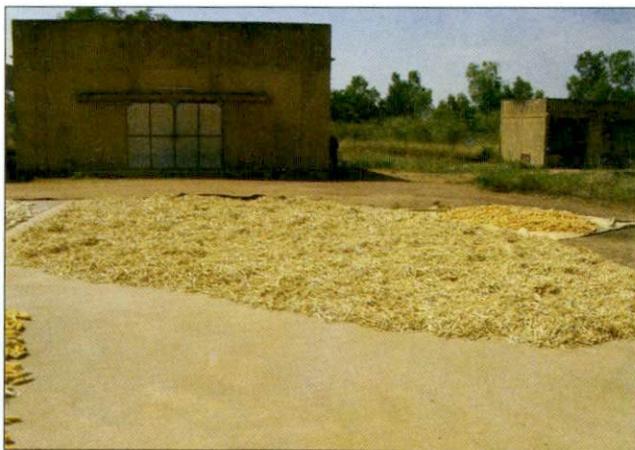
The trials in Burkina Faso were carried out by Drs. Jacob Sanou and Oumar Ouedraogo of INERA. INERA operates in five provinces of the country. Visits were made to villages in Fada N'Gourma and Bobo Dioulasso, which represent the headquarters of their respective provinces. In Fada N'Gourma,

SAFGRAD striga control activities were carried out in Kouaré and Komianga, 11 and 45 km, respectively, to Fada N'Gourma. Field visit was limited to Kouaré because the rains were over as at the time of the visit and because performances for the two sites were similar.

To promote sustainability of the striga packages being demonstrated and extended to farmers, farmers were being taught how to produce seeds of cowpea varieties capable of stimulating the germination of striga seeds. Each of the two farmers

involved in the seed production exercise in each of the two villages had 0.25 ha for the production of one of the two cowpea varieties being promoted viz. K VX61-1 and K VX396-4-5-2D. In the two villages, therefore, total area used for cowpea seed production was 1 ha, with half-a-hectare used for the production of each of the two cowpea varieties.

In addition to the cowpea seed production activity, striga control technology demonstration trial was implemented on the field of one farmer per



Pods of cowpea variety capable of stimulating high germination of seeds of striga being dried on station in Fada N'gourma



High Striga seed germination stimulating cowpea variety being multiplied on a farmer's field in Kouaré.

village. Between 7 to 10 other farmers had the opportunity of repeated visits to the farms with the control technology for the purpose of comparing the technology with the practice(s) on their farms. This is the farmers' field

school system. Harvesting ought to have been done but was deliberately delayed for the purpose of the monitoring tour. There were three plots on the field used for the on-farm trials each measuring 25 x 20 m. One plot

was planted to the farmer's maize variety, the next to the STR maize variety and the last to a cowpea variety that was previously selected for ability to stimulate high number of striga seeds in the soil to germinate. In the following year, STR maize would be planted to the plot to which cowpea was planted this year, while cowpea would be planted to the plot cultivated with STR maize in the current year. This trial is aimed at demonstrating the high yield potential of STR maize under striga as well as to demonstrate the benefits of crop rotation with cowpea. The benefits of rotation with



Drs. Oumar Ouedraogo and Mahama Ouedraogo holding discussion with farmers on the challenges faced during the year's trials and their perception of the striga control activities.



High Striga seed germination stimulating cowpea variety being multiplied on a farmer's field in Kouaré.

cowpea are increase in soil fertility as a consequent of symbiotic nitrogen fixation and reduction in the striga seed bank in the soil following the suicidal germination of seeds of the parasite following stimulation by cowpea root exudates. In this area, cowpea was not usually planted sole. Therefore, the use of cowpea for striga control, involving its sole planting in rotation with cereal crops, is new. Consequently, its adoption and use for striga control using the rotation technology is likely to be slow.

The two farmers that implemented the demonstration trials in the village were Dayamba Barke and Tompudi Mamoudi and the team met with them. Land preparation by tractor was facilitated by INERA to encourage farmers to participate in the project. Rain started very late and stopped early in the location, resulting in a reduced duration. There was just

one month of rainfall in the location, with the last rain (18 mm) falling on 8 September. Planting was carried out on 6 August, 2007 despite the fact that the last recommended date for planting in the region is 15 July. Maize was planted at a spacing of 80 x 40 cm and at two plants per hill to give 62,500 plants per hectare. The performance of maize in the trial was affected by the widely experienced drought. It may be better not to plant maize in years when the rains are late in getting established, since there is no guarantee that in such years the duration would be extended. Geographical Information System may have prospects for better decision making for improved agricultural production.

Although the farmers were not happy, they appreciated the peculiarity of the weather situation for the current year which undermined the trials and expressed happiness at

our visit and the support being received in respect of striga control from SAFGRAD. The drought experienced had pushed up the price of maize to CFA16,000 at the time of the visit which is usually CFA9,000 or less at similar time in other years.

The team had an interaction session with the 21 farmers who came to provide their opinions about the activities for striga control being carried out in their area. The farmers were between the ages of 15 and 60 but mostly between 25 and 40.

One of INERA's strategy for sustainability is to put in place a seed supply system involving farmers themselves. This strategy involves the production of certified seeds by farmers. Although it is somewhat difficult to meet the conditions required for the production of certified seeds, two farmers are being supported to meet the requirements next year.

Part of the seeds produced on the farmers' farms this year will be sold to other farmers next year. In general, farmers give out their seeds free, sell to or exchange with other farmers. The cowpea varieties being promoted have a life cycle of 60 to 70 days. INERA appears to have made some impact this year with these cowpea varieties being promoted. The reason for this is that the local varieties, possibly because of their longer maturity cycle and the drought, produced few or no pods at all, whereas the varieties being promoted did well. The benefits of the new cowpea varieties include its higher yield, better taste, early maturity and ability to reduce striga seed bank of soils. The striga problem was less severe this year due to the late planting, so the other advantages listed above became crucial. It is important to note that the impact of the SAFGRAD striga control activities transcends striga but ex-

tends to improvement in overall agricultural productivity as demonstrated by the yield potential of the new cowpea varieties under drought conditions. The interaction forged among farmers of multi-ethnic groupings is also beneficial.

### Visit to Lena - Dr. V.O. Adetimirin

Monitoring tour was undertaken to Lena in the western part of Burkina Faso. Lena is 55 km from Bobo Dioulasso. In all,

four activities were carried out in the province viz. (i) variety trials which affords farmers the opportunity of choosing preferred varieties from those developed an activity that ensures farmers' participation in plant breeding, (ii) on-farm demonstration of striga control technology, mainly legume (cowpea or soybean) in rotation with STR maize variety, (iii) seed production of STR maize varieties (yellow and white), cowpea and soybean, (iv) teaching farmers maize production technologies. The last objective was



Dr. Victor Adetimirin with Millogo Mesmin,  
President du Groupement 'MONEMETA

realized in tandem with the first and second objectives. The first two objectives were carried out in farmers' fields.

The first field visited was that of Millogo Mesmin, President du Groupement 'MONEMETA' who cultivated half-an-hectare of soybean, a quarter of a hectare of cowpea and 1 ha of maize (ACR 94 TZE Comp 5-W). INERA provided only fertilizer and advice; all other activities were undertaken by the farmers. As with other farmers, land preparation was by animal traction. Although the soybean was planted on 19 July 2007, the effect of the drought was apparent as many of the pods were observed not to be very well-filled. In this location, July and August are considered to be very good months for soybean planting. The farmer was disappointed that contrary to the forecast that the rains would extend to November resulting in the planting of

crops that are not tolerant to drought, this was not the case. This underscores the need for an improvement in forecast. Lateness of commencement was a weakness of this year's activities. Although the lateness of commencement of the rains was mainly responsible, SAFGRAD must ensure that the transfer of funds should be completed by the first week of June so that lateness of arrival of funds does not contribute to such situations in the future. The farmer is vast in seed production and is an accredited seed producer who markets his seeds to other farmers. At the time of the visit, the cowpea was already harvested. Usually the stovers of the cowpea and soybean are fed to livestock. The overall system makes for farmer-to-farmer training. This farmer, Millogo Mesmin, group-trains other farmers in crop production techniques. Given that the farmer is an accomplished seed producer, he

also produces and sells cassava sticks.

The second field visited was owned by Millogo Dessoun Die and had on-farm demonstration of the striga control technology being promoted. There were three plots, each measuring 1000m<sup>2</sup>. The first plot was planted to the farmer's maize variety, the second to cowpea, and the third to ACR 97 TZE Comp 5-Y, a striga tolerant maize variety. The crops in the second and third plots would be rotated in the following year. Planting was carried out on 22 July 2007 while fertilizer was applied on 10 August 2007.

The farmer's variety was more severely infested with striga than the STR variety. Also, adjoining plots planted to sorghum was the most severely infested with striga, again underscoring the role that sorghum may have played in increasing the striga infestation levels in Africa. The farmer was of

the opinion that the more severe striga infestation on sorghum was due to the fact that the sorghum was not fertilized. In this location, farmers rotate cotton and sorghum hoping that the less intensively cultivated sorghum would benefit from the residual fertilizer applied to the previous cotton crop and without knowing the beneficial effect of suicidal germination of striga by cotton.

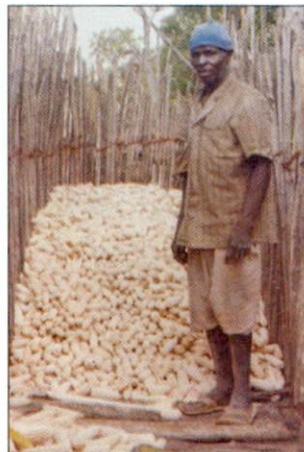
The farmer's field also hosted a varietal trial involving varieties which have not been specifically bred for resistance to striga. However, with the demonstration being done on naturally infested fields, it is expected that the variety that would excel would, by default, be the one with better tolerance of striga. Two varieties of maize were involved in the varietal demonstration, each planted on 7 row plots, each 20 m in length.

The third farm visited,



Cowpea plot being harvested by female members of the farmer's household.

owned by Millogo Julien Die, was one of those used for the multiplication of seeds of ACR 97 TZL Comp 5-Y. The seed



In Lena, farmer engages in plant breeding by selecting big cobs with well-formed cobs free of diseases from his harvest which will furnish the seeds for the next year's planting.

of the variety was being multiplied on an area of 1 ha.

The fourth field visited was used for on-farm demonstration of the promising striga control technology and was owned by Millogo Athanase. As with similar demonstrations, three plots were planted to the local maize variety, soybean and the STR maize variety. Planting was done on 25 July. Crop Performance was, in general, poor. The plot planted to the local maize variety was planted to cotton in the previous year. This

may obscure the effectiveness of the technology being promoted since the local variety may end up having fewer number of striga plants. At the time of the visit, no Striga was visible on the plots planted to the STR maize and the farmers' variety.

The field farm was owned

by Millogo Eloih and hosted a demonstration of STR maize + legume rotation for the control of striga. Crops on the field were adversely affected by drought. The three plots in the farm were each planted to STR maize, cowpea and the local maize variety. It was apparent that the farmer

abandoned the field when he realized that the drought had wrecked havoc and his effort may not be well rewarded.

In general, plots used for the demonstration activities were very well spaced apart.

**MALI**  
**(29 - 31 October,**  
**2007)**  
**by**  
**Victor Adetimirin**

The tour started with a meeting of the team (Dr. Victor Adetimirin and Dr. N'tji Coulibaly) with Dr. D. Guindo, the Regional Director of *Institute D'Economie Rurale* (IER). The institute has six regional centres, of which Sotuba, the centre responsible for research on maize, sorghum, farming system, genetic resources, food, soil and livestock, is one. In all, there are 16 research programmes of which maize is one. The timing of the monitoring tour was late, as the best time to visit

maize trials in the region is Early/Mid September. On-station, the team visited an artificially infested varietal trial plot where extra early, early and intermediate open pollinated varieties were being screened.

Seed multiplication was one of the activities being carried out under the project. In Dalabani, the team visited the field of Sinaly Ouattara, a seed producer who has 1 ha of land under ACR 95 TZE Comp-5 Y.

The second field visited was in the village of Oure where Yussuf Sangare, a seed producer was invol-

ved in the seed multiplication of Sotubaka – an open pollinated maize variety widely cultivated in Mali. The seed production was being carried out on 8 ha. The farmer usually markets his seeds to other farmers or seed dealers. The field was outstanding and represents a very good effort by the farmer. The location has good potential for maize, receiving about 900-1200 mm of rainfall per annum starting in June. For the seed production exercise, planting was timely in June, immediately after the commencement of the rains.

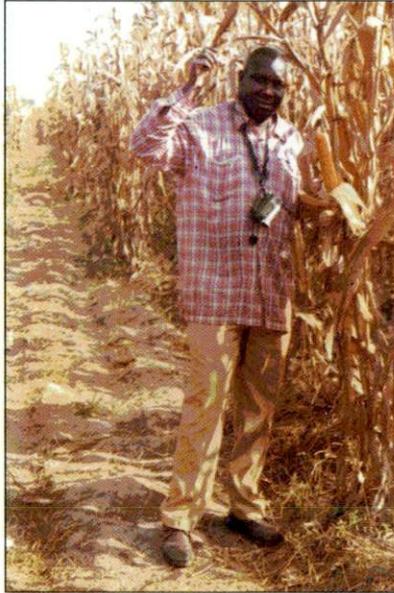
The farmer obtains seeds



Heavy infestation of striga on sorghum

for his seed production from IER every year. On-station, the half-sib technique is used to maintain the variety. Six rows of plants to serve as female are planted for every two rows of the male. The activities of the seed growers are under close supervision of the regulatory organization, which registers farmers. The regulatory agency visits the farms used for seed production during actual production and at harvest, and also takes samples of the harvest for analysis before certification.

Visit to Marako-60 km from Bamako was carried out on 30 October. The area receives about 800-900 mm rainfall. While farmers in the area would like to grow maize, the striga problem makes this difficult. The rains commenced late this year in the location, making sorghum to be the choice crop for the year. The third farmer visited was that of Sangalo Coulibaly, who planted on 13

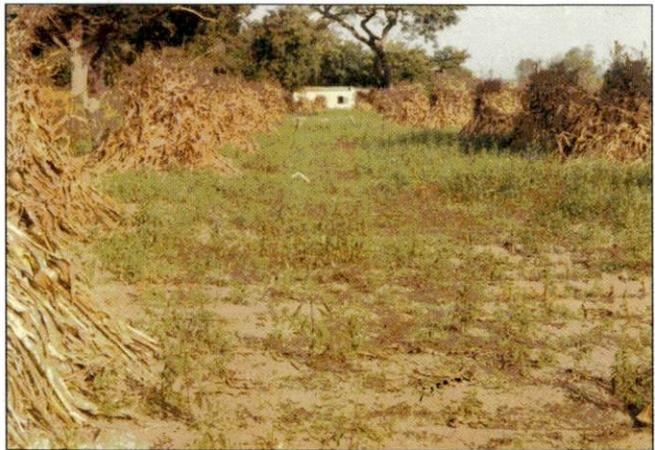


Dr. Coulibaly showing off proudly the outstanding yield of maize variety Sotubaka.

August. Again, it was obvious that sorghum supports striga more than any other crop.

The control technology demonstrated was intercropping with three plots; the first plot was planted to the farmer's variety (Name: Nyeleni) as a sole crop, the second plot to ACR 97 intercropped with soybean and the third plot to EVDT intercropped with soybean. Two maize plants were planted per hill followed by two soybean plants

per hill. The crops were severely affected by the drought as a result of the late planting.



Maize plants with cobs being bunch-dried for easy harvesting in Mali

It was, however, confirmed that fund for the trial was sent on time by SAFGRAD.

On 31 October, visit was made to Bacoumana – 70 km west of Bamako. Bacoumana is in a striga - infested area and has an annual rainfall of 900-1000 mm. The first field visited which was that of the fourth farmer in Mali hosted a varietal trial involving two varieties viz. the farmer's variety and TZL Comp STR Syn W. Planting was carried out late (on 1st August) and adversely affected crop performance. Given the uncertainty in rainfall experienced in the current year and the possibility of such in other years, the national program may need to reconsider the choice of the late va-

riety being pushed in the area in favour of intermediate varieties. More striga plants were observed on TZL Comp STR Syn W compared to the local variety, perhaps because of super-susceptibility of the local variety as a result of its inability to support striga to the point of emergence. The team observed severely infested sorghum fields which have been negotiated for the varietal demonstration of 2008. The fifth field visited was in the village of Nanguilabougou. On this field, the local variety supported more striga than the STR variety. While crop performance was better than that of the fourth field, the effect of the drought was still apparent. Farmers involved in SAFGRAD and IER's activities carry out

communal planting involving families of several farmers. This makes possible the planting of several fields on the same day. As the farms visited in Bacoumana and Nanguilabougou are on the fairly busy road to Guinea, the opportunity for effective field days and demonstrated impact exists in this location. An important objective of the communal crop production activities is to teach general maize production techniques and not just striga management. It is instructive that maize was originally introduced to the area between 1979 and 1982 with the help of SAFGRAD. The major crop cultivated in the area before maize introduction were upland rice, sorghum and groundnut.

## CONCLUSION

Monitoring tours for the Collaborative Striga Research and Control Program in Africa were carried out in four of the participating countries in 2007, excluding Cameroon and Nigeria. The level of implementation of the project in the countries visited was quite varied. The level of success achieved in 2007 was below expectation and certainly below the standard achieved in other years. A number of reasons may be responsible for this observation. One is the poor rainfall

that was experienced in Ghana and Burkina Faso. Another is the lack of fund for project execution in 2006, leading to a break in field activities in a number of participating countries, except Cameroon and Nigeria that carried out some activities on their own. The lesson here is that break in project execution should be avoided since it often results in loss of momentum which is usually very difficult to build up again.

Although poor rainfall was reported in two countries, the level and quality of implementation of the project in all the countries visited can be improved upon. Ghana and Benin must strategize for better field activities, which for the year under reporting was below expectation.

The issue of involving a plant breeder in the project in Benin has been raised on several occasions but no action has been taken in respect of

this suggestion to date. The non-implementation of this suggestion seems to be slowing down the rate of progress in the country, especially given that a maize breeder is located in the region where striga causes the greatest damage in the country. The breeder's proximity to the trials will facilitate frequent field visits at little expense and he can also take up the task of multiplying the seeds of the maize, cowpea and soybean varieties to be used in the project. The problem of non-availability of good quality seed encountered in 2007, evidenced by observed contaminated grains, can easily be solved with the involvement of the breeder. Certainly, this is the way the project should go in Benin if the committed resources would bring out expected outcomes.

The passing away of Dr. Ibrahim Kureh was responsible for the non-implementation of a monitoring tour in northern

Nigeria, and this was understandable. There is, however, no reason for not carrying out monitoring tours in southern Nigeria and Cameroon. Monitoring tours must be seen as a necessity in countries that have received funds for the implementation of the project. This should be planned for in 2008. To facilitate this, SAFGRAD should urgently request for the dates when trials were established in the various countries in 2008 for pro-

per scheduling of monitoring tours.

There seem to be some lapses with the logistics for field visits in some countries. The logistics for field visits are the responsibilities of host scientist, and adequate information should be provided well ahead of time on recommended hotels and detail itinerary for the tour.

It is worthy of commendation that funds were

released on time to all participating countries by SAFGRAD in 2007. This should be sustained in the future. The administration in participating countries should make received funds available to scientists on time to avert the kind of problem encountered in Mali in 2007•

**LIST OF INSTITUTIONS PARTICIPATING IN THE KOREAN  
GOVERNMENT/SAFGRAD FUNDED ON-FARM DEMONSTRATION  
OF STRIGA CONTROL TECHNOLOGIES**

Benin	Institut National des Recherches Agricoles du Bénin, BP. 128 Porto Novo Benin Republic	<i>Dr. G. Gbehounou</i>
Burkina Faso	Institut de l'Environnement et de Recherches Agricoles (INERA) 03 BP. 8645 Ouagadougou 03	<i>Dr. Jacob Sanou</i>
Cameroon	Institut de la Recherche Agricole pour le Développement IRAD, Yaoundé	<i>Dr. Charles The</i>
Côte d'Ivoire	Centre National de Recherche Agronomique, Abidjan	<i>Dr. Louise Akanvou</i>
Ghana	Savanna Agricultural Research Institute Nyankpala, Tamale, Ghana	<i>Dr. M. Abdulai</i>
Mali	Centre Régional de Recherche Agronomique de Sotuba. Institut d'Economie Rurale, Ministère de l'Agriculture, de l'Elevage et de la Pêche, République du Mali	<i>Mr. N. Coulibaly</i>
Nigeria	Institute of Agricultural Research Ahmadu Bello University, Zaria University of Agriculture, Abeokuta	<i>Dr. I. Kureh/ Dr. B.D. Tarfa Prof. S.T.O. Lagoke</i>

**Union Africaine**

**SAFGRAD**

Tel.: (226) 50 30 60 71

01 BP 1783 Ouagadougou 01

Burkina Faso

Tel.: (226) 50 31 15 98

Fax: (226) 50 31 15 86

Email: [ua.safgrad@cenatrin.bf](mailto:ua.safgrad@cenatrin.bf)

URL: [www.ua-safgrad.org](http://www.ua-safgrad.org)

**African Union (AU)**

Commission

P.O. Box 3243

Tel.: (251) 11 51 77 00

Fax: (251) 11 51 78 44

Addis Ababa

Ethiopia

**AFRICAN UNION UNION AFRICAINE**

**African Union Common Repository**

**<http://archives.au.int>**

---

Department of Rural Economy and Agriculture (DREA)

African Union Specialized Technical Office on Research and Development

---

2008-02

# Scientific Monitoring Tour of the Collaborative Striga Research and Control Program in Africa 2007

AU-SAFGRAD

AU-SAFGRAD

---

<https://archives.au.int/handle/123456789/7835>

*Downloaded from African Union Common Repository*