

AME Foundation promotes ecological agriculture among small and marginal farmers in the semi arid areas of the Deccan Plateau by generating farming alternatives, enriching farmers knowledge, linking development agencies and sharing experience.



The AMEF-FAO partnership project on "Promoting Livelihood Improvements in Dryland Farming on the Deccan Plateau", formally commenced from January 2005. Hence, this period was marked by planning and preparatory exercises for the implementation of FAO project. Activities of the Kharif 2004 were consolidated and the results shared in the various field days held across different area units. Rabi crops like cotton, jowar, bengalgram, chilli, rabi groundnut and sunflower were harvested during this period.

Field events

Bajra varietal trials at Narabandi and Navalkal villages in Raichur indicated that *Gulbarga Sajje* performed better than *Mara sajje* and *Raichur local* variety. Better germination and increase in yield to an extent of 50 kg/ac, where seed was treated with *Trichoderma*, *Azospirillum*, cow urine and dung, was observed.

In Raichur, hailstorms during the month of January, resulted in crop lodging and grain discoloration in jowar crop. However, crop harvest yielded a lot of crop residues which were recycled.

In Bijapur, bengal gram as an intercrop in sorghum yielded better than safflower. Farmers with irrigation facility managed to get good yield from both main as well as inter crops by providing protective irrigation. Practices like fall ploughing, across the slope cultivation and crop rotation with short duration legumes helped in conserving soil moisture and fertility improvement. Sorghum PTD plots had ear head emergence 6-8 days earlier than normal which were also bigger in size. Application of neem cake reduced the termite and root grub problem. These were the experiences shared by the sorghum PTD farmers during the field day. Besides PTD farmers, more than 200 other farmers too participated in the event.

Tiruchi unit organised a field day in Manbarai. About 62 farmers from three villages shared the outcome and experiences of the season-long groundnut FFS. VRI 2 varietal characteristic as a source of fodder and Red Hairy Caterpillar management technologies were discussed in detail.

Madanapalli unit organised a two-day farmers' meet in which 70 farmers and NGO staff participated. Farmers shared their experiences of Kharif 2004 groundnut crop and the alternative farming practices adopted by them.

In Lakkondanahalli, potato farmers are convinced of the effects of cow dung and urine extract spray. With this spray, crops did not dry up fast and even after two months of potato tuber planting, crop was still green. The yields with the treatments were 4500 kg from 30 guntas. This was 1500 kg more than the normal yield.



Strip cropping - Some learnings from Bellary

1. Strip cropping in groundnut with ragi/navane is a new practice in the region.
2. Ragi as a strip crop acts as a barrier to thrips movement, which transmits PBNB, thus, keeping the pest attack under control. Soil borne pathogens also starve due to change of host.
3. The ragi residues, composted and incorporated into the soil will enrich the soil nutrient status.
4. Ragi stalk was used to cover the heap of groundnut in the store yard, thus saving farmers from purchasing paddy or other cereal husk/straw.
5. Even though the unit area under groundnut cultivation is reduced, most farmers in this trial have harvested almost the same yield in groundnut as they used to get in sole crop with groundnut. Strip crop has been an additional crop to meet out food and fodder requirements.
6. Stunted growth of groundnut crop was noticed in the strip crops sown north-south direction due to shade effect by ragi.

Discussion with farmers revealed that this technology could be taken up as a most valid dry land technology as it contributes a lot for their livelihood improvement and there by to sustainable crop production over the years.

Growing interest in herbaceous cotton RAHS-14

There seems to be a growing interest in Raichur cotton farmers in taking up RAHS -14. This has been the result of the orientation conducted by the Raichur unit on the integrated cultivation practices of RAHS -14 variety including seed production processing, dissemination and marketing of local varieties. Farmers were also exposed to a demonstration plot at Banniganur. After observing the plot, farmers opined that in RAHS, besides the plant height, number of branches and bolls being more than the local variety, picking is also very easy. Seed quality and fibre length were also better compared to the existing Jayadhar variety. The visit motivated the farmers to go in for RAHS -14 during the next cropping season. They have also expressed interest to grow niger as inter crop in cotton in 1:1 row proportion.

Green Manuring for enhancing soil fertility

Tiruchi unit promoted integration of green manure crops in the normal cropping system in Kolakkanatham village of Perambalur district. This effort resulted in

- Producing and applying more organic matter (about 4 tons per acre)
- Meeting fodder requirements of 20 goats from 0.5 acre plot (for 20 days) during the lean season
- Weed reduction in heavily grass infested soils
- Reduction in cost of weeding and increased net returns
- Improved quality of maize in green manure recycled plots.

As a follow up, a Field day on Green Manuring in dry lands was organised by Tiruchi unit and NGO – REACH. Around 78 farmers from NGO and DST project villages participated and shared their experiences. These experiences were shared at the National Seminar on Resource Management for Sustainable Agriculture, held at Annamalai University. The paper caught attention for its focus on alternative technologies for drylands. Collaboration opportunities for research were also identified. AMEF's efforts in promoting green manuring on drylands was appreciated by many Scientists and NGO participants.

Varietal trials in Chillies

Bijapur unit has initiated chilli crop management along with varietal trials with a group of farmers in Devaranimbaragi village. These trials have enabled identification of disease resistant variety in nursery stage itself. Following are the results of the trials:

- In the main field, *Guntur-4* has shown maximum resistance to chilli murda followed by *Byadagi Kaddi*.
- *Hanjagi local* has recorded maximum number of branches, flowers and fruits followed by *Devaranimbaragi local*.
- The trials confirmed that for green chilli purpose, *Hanjagi local* is the best variety (if dried for red chilli purpose becomes more susceptible to damage) and for red chilli purpose *Byadagi kaddi* and *Bydagi dabbi* are the best, owing to its bright colour.

Training and Study Tours

Lead farmers of Upparahalla and Chinnahagiri watershed were trained on IFS under the 6th modular training by Bellary unit at CS&WCRTI, Bellary. Resource persons from CEDOK and BAIF-Kottur facilitated training on NLBA and livestock management respectively.

Bellary unit organised a training on improved silkworm rearing technologies for Upparahalla watershed farmers. 24 farmers participated in the training. A case of farmer benefited by the training is described in the box.

Training on pomegranate crop management for Devarnimbaragi farmers was organised by Bijapur unit.



Success story of a sericulture farmer

Mr. S. Bommalingappa from J.L. Hatti village in Bellary, was engaged in sericulture since two years following conventional method of silkworm rearing. He generally harvested an average yield of 20 kgs/ 100 DFLs. With AMEF's intervention, he became a member of the sericulture farmers group initiated by AMEF and was trained on improved rearing practices in egg handling, IPM for Uzi fly control, young age silkworm rearing etc. Now he follows these practices and has harvested each time an average yield of 60Kgs /100 DFLs with a total returns of Rs. 23000.

Bommalingappa is a happy farmer advising other farmers to take up the scientific method of silkworm rearing.

Following this, a study tour was organised to Ralegaonsiddhi Watershed, MPKV-Rahuri, KVK Nasik and Nasik pomegranate market to help the farmers observe innovative practices for managing pest and diseases in pomegranate cultivation and explore opportunities for collective marketing.

Bijapur unit trained PTD farmers of Kanakanal and Devarnimbaragi on measuring harvest of sorghum and bengal gram.

Mahabubnagar unit trained partner NGOs and farmers on soil sampling methods and its importance at Munnatur and Gaddegudem. Farmers collected the soil samples from their respective fields to test the fertility levels.

Madanapalli unit trained farmers on pest and disease management in groundnut rabi seed production. About 70 farmers were trained on composting and vermicomposting techniques. Nine vermicompost tanks and two compost pits were initiated after the training.



Training rural youth on production of bio-pesticides and bio-fertilizers

To ensure timely availability of bio-inputs by enabling preparation of bio inputs at local level, training was organised for the rural youth. Unemployed youngsters were identified and trained in mass production techniques. Besides, information was also provided on marketing aspects and linkages developed with Banks and other Departments.

Raichur unit in collaboration with UAS(D) and KVK, Raichur, and Bellary unit in collaboration with College of Agriculture, Bheemarayangudi, Gulbarga, organised these trainings. Participants learnt about mass multiplication of bioagents like *Trichoderma*, *Trichogramma*, *NPV* and *Rhizobium* at the village level.

They felt that knowledge gained and the technical skills acquired during the programme will be made use for preparing bioagents with locally available material, for field application.

Madanapalli unit organised a study tour for the 15 new farmer groups and eco network partners to motivate them in alternative farming practices.

Raichur unit took farmers on a study tour to Sri Gopalareddy's Farm and Shah Dairy Farm in Kodla, Sedam. Farmers observed various aspects like large scale vermicompost production; different cropping systems (Fig-Marigold, Fig-Onion, Cotton-Rose-Sapota and Lemon and Jasmine as sole crops). Specific learnings from the visits were:

- No specified layers required for filling the vermi pit
- Half decomposed dry biomass will yield a high quality vermi compost
- Diluted urine of livestock will encourage the worms to feed and multiply at a faster rate
- *Trichoderma* can be produced at a low cost
- Onion can be grown as an intercrop in Fig
- Cotton can be grown as an intercrop in fruit crops
- Efficient water utilisation through drip irrigation was possible.

Farmers also had interactions with progressive farmers like Sri Somanath Reddy and Sri. L.M. Patel.

Bijapur unit organised a study tour for 26 Lead farmers of Doddahalla watershed. They visited farms of Mr. S. Ramesh in Devanahalli, Mr. L. Narayana Reddy in Hadadi, Green Foundation in Thally (TN), and MYRADA-KVK at Talavadi.

Networking with NGOs

Tiruchi unit networked with other NGOs for scaling up Sustainable Agriculture initiatives. Nine NGOs agreed to be part of a long term collaboration with AME Foundation, starting with a modular training programme. As an entry point, a 4-module training course is planned for the trainer level staff of the NGOs, starting in May 2005. Two NGOs participating in the meeting were identified as Eco network partners of the area unit.

Forging Institutional Linkages

Bellary unit coordinated with CSR&TI, Mysore and Dept. of Sericulture, Khanahosahalli in training the farmers in Chawki rearing technologies and pest and disease management in silkworm rearing. Faculty of College of Agriculture, Bheemarayanagudi were utilised in training farmers on production of bio-pesticides and bio-fertilizers.

Motivated to practice

Inspired by the IFS model at Bavikere during their previous study tour, 3 master farmers in Upparahalla watershed have adopted the same on their 1 acre land.

Raichur unit has developed linkages with the UAS Dharwad, KVK Gulbarga, Tungabhadra Grameena Bank, PCI Bangalore, and College of Agriculture, Raichur. Cotton Corporation of India (CCI) has approached Raichur Unit for exploring possibilities of marketing cotton.

Internal capacity building

Staff of Bellary unit visited NGOs like CIKS, MSSRF, Dhan Foundation and Green Foundation for knowing their various activities. Community mobilisation, laboratories for bio inoculants (*Trichocards* and *Pseudomonas*), managed by farmers; Rural –Urban link up for collective marketing of farm produce; Business development schemes; IT programmes and crop insurance schemes were some activities observed by the participants.

Staff of Madanapalli unit along with 15 NGO staff went on study tour programme to MYRADA Katteri Watershed Project, M.S. Swaminathan Research Foundation to study Bio-village, private organic farms around Auroville, Central Soil & Water Conservation Research & Training Institute and Horticultural Research Station.

Mr. Gangadharswamy (Bellary) and Mr. Rudragouda (Bijapur) participated in the Management Development Programme –"Promoting Participation and Empowerment in Development/NRM", organised by IRMA, Anand during the first week of March. Senior and middle level development professionals from NGOs and govt. department were the other participants.



Congratulations!

B. Vijayalakshmi (Tiruchi Unit), presented a paper on AME Foundation experiences in organic matter production and recycling with respect to green manure technology for drylands in the *National Seminar on Organic recycling in Dryland Farming Systems* at Annamalai university, Tamil Nadu. Her presentation received the best presentation award under the theme "organic recycling".

Mr. Ashwin from the Central Unit participated in the 2nd National Conference on Organic Agriculture, Bidkin, Aurangabad. A paper on "Promoting Sustainable Agriculture practices amongst marginal and small farmers in dryland agricultural areas – Ideas and experiences of AME Foundation" was prepared.

Three-day wrap up session on participatory evaluation was held at Bangalore. Mr. Ashwin and Ms. Sudha from the Central Unit presented the findings of the evaluation exercise carried out in Madanapalli and Bellary respectively.

Ms. Surekha from the Central Unit participated in the three-day National Seminar-2005 on Extension Methodologies at UAS, Bangalore.

Mr. Ranganath Babu (Mahabubnagar) participated in the Seminar on Natural Resources and Asset Building at Hyderabad organized by AP Mahila Samata Society in which NGOs of AP participated.

Dr. Sarvajna Salimath (Mahabubnagar) participated in the Consultative Committee meetings of APCOT. Discussions were held with Centre for Environmental Concerns (CEC), Hyderabad to find solutions to major problems in cotton. IPM through FFS methodology was discussed.

Mr. G. Ravi Kumar (Tiruchi), participated in the Training on "Management of Appropriate Technologies for Sustainable Agriculture", organised by IARI, and DST, New Delhi. The training was conducted for all project implementing NGOs. Functionaries from 16 organizations around India, who are implementing similar DST projects, participated.

The staff at the Central Unit had a discussion on gender aspects following the presentation made by Dr. Usha Kulkarni, Consultant, on "Gender and Equity Concerns in Sustainable Agriculture-Past Efforts and Future Road Map".

Documentation

- Shyam Kulkarni (Bellary), *Indigenous grain storage methods*, LEISA India Vol 5 No.3, 2004
- Shyam Kulkarni, *Information on collective marketing* (Kannada), KAWAD Kannadi wall magazine
- G.M. Hegde, (Bellary), *Management of groundnut pests* (Kannada)
- B. Girish (Bellary), Case studies - *Success story of farmer in sericulture: Oblesh* (Kannada) and *Success of castor as an intercrop* (Kannada)
- Mr. Rudragouda, Madiwalar.S.S and Mahesh.B.G, (Bijapur), *In-situ soil and water conservation practices for sustainable dry farming* (Kannada)
- B. Vijayalakshmi and G. Ravi Kumar (Tiruchi), *Green manures - dimensions beyond soil fertility*

Doordarshan, Gulbarga telecasted a programme on farmers demonstration on preparation of Trichoderma and Rhizobium, organised by Bellary unit.

LEISA India

International Editorial Meeting of the LEISA Magazine, was held at ILEIA, the Netherlands during the first week of February. Editors of all the six regional editions met and discussed issues of quality, outreach and sustainability. Results of LEISA India reader's survey were presented and highly appreciated. The business plan for LEISA India was projected highlighting the planned growth incorporating ideas for improving quality and outreach.

The Issue on "Post harvest management" has been released during this period.

New Premises

AMEF has moved into new premises during the month of March 2005. The new address and telephone numbers as given in the mailing box may kindly be noted.



Visitors

Mr. V.S. Bhat, Programme Officer, BIRD (K) Koppal and Raichur district, visited Raichur unit to explore the possible collaboration.

About 50 farmers from CARE (APFAMGS) project, Hyderabad, visited the Area unit Raichur and visited the dry land horticulture farm at Mudagal developed by AMEF.

A group of SCINDeA network trainers visited the direct villages in Tiruchi unit and discussed with farmers the experience of participating in a Farmer Field School.

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