Organic Farming Association of India
OFAI

THE LIVING FIELD

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Farmers Shine & Sparkle at OFAI's Organic Farming Conference at Bengaluru

OFAI's President, D.D. Bharamagoudra speaks at the inaugural session of the South Asia Conference. The Conference was declared open by S.K. Patnaik, Joint Secretary, Ministry of Agriculture, GOI.

On 10 September, 2009, Mr. S.K. Patnaik, Joint Secretary (Horticulture), Ministry of Agriculture, Government of India, inaugurated the South Asia Conference on "Outstanding Organic Agriculture Techniques" at Kuvempu Auditorium, GKVK-Bangalore, in the presence of Vice-Chancellor Dr. P. G. Chengappa, NCOF Director, Dr. Ashok K. Yadav, OFAI President D.D. Bharamagoudra, IFOAM Vice-President Mr. Andre Leu, OFAI Director, Dr. Claude Alvares, ICCOA Director Mr. Manoj K. Menon and other dignitaries. There were more than fifty delegates from Nepal, Bhutan, Bangladesh, Sri Lanka, China, Malaysia, Australia, Ethiopia and United Kingdom.

The travel costs of foreign delegates to the SAC were generously borne by the Third Word Network, Malaysia. The NCOF supported the OFAI conference with grants-in-aid for local expenses while the University of Agricultural Sciences, Bangalore, graciously permitted the use of its infrastructure and facilities.

OFAI embarked on its ambitious mission to conduct the very first South Asia Conference on Organic Agriculture Techniques [SAC] early this year. The first venue proposed was Pune, site of the new International Institute of Sustainable Agriculture (IISA).

However, due to the intervention of Dr A.K. Yadav, the conference was shifted to the campus of the Gandhi Krishi Vigyan Kendra (GKVK) of the University of Agricultural Sciences, Bangalore (Bengaluru).

Since the citizens of Bangalore should know of the event, it was decided to work with other organizations to present an "Organic Mela". So OFAI teamed up with Jaivik Krushi Society (headed ex-officio by Addl. Director, Karnataka State Dept. of Horticulture) at Lal Baug on the weekend. That event too proved to be an outstanding success and a great hit for consumers looking for organic food.

Though we had initially planned for 200 people at the SAC, the conference eventually played host over 400, including 50 foreign delegates. Besides the OFAI Goa-based staff, Dr. P.V. Satheesh of Deccan Development Society-Hyderabad; Ms. Sangita Sharma of Annadana-Bangalore; Dr. Bharatendu Prakash of OFAI-North India, Dr. Sultan Ismail from Chennai, Dr. Sujata Goel from Kodagu, P. Babu from ICRA, Krishna Prasad, Jairam from Era Organics and others chipped in with their strengths.

The University of Agricultural Sciences, Bangalore, did more than its share. It volunteered, and did more than what we could reasonably

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Tamil Nadu State Agricultural Council Act-2009 Junked

It was the quickest possible victory for the farming community in several years.

On 10th September 2009, Tamilnadu Chief Minister M Karunanidhi announced the burial of the Tamilnadu Agricultural Council Act, 2009. The Bill had been passed in the Tamilnadu Assembly barely two months earlier.

The action came after huge spontaneous protests were erupted from the farming community and political parties against the passing of the Bill. They charged that the Bill would further impoverish the farming community and rob it of its wealth of knowledge about farming practices of which modern agricultural scientists had no clue.

The Bill stipulated that only persons with degrees in agriculture, forestry, home science, agricultural engineering and related subjects (from just three TN universities) could function as agricultural consultants and render agricultural services and disseminate agricultural knowledge within the State.

Farmers groups across the state first moved a resolution during the special "Grama Sabha" (village panchayat general body) held across the State on the 15th of August, Independence Day. Several villages also decided to put up notices outside their village announcing their disapproval of the Bill and informing members registered with the Council that the village would not transact any business with them.

The successful campaign against the Bill was masterminded by the members of TN Farmers Forum, TNWC, Dr G. Nammalwar, LEISA, DDS, FEDCOT, OFAI and the TN Environmental Council. OFAI congratulates the coalition on its success.

Ramdev Goes All-Organic

All the organic produce from the Indian state of Uttarakhand will be bought by yoga guru Baba Ramdev's Patanjali Yogpeeth, a Haridwar-based ashram. This information was announced by the State's Minister for Agriculture, Trivendra Singh Rawat. The move will naturally give a tremendous boost to the organic farming in the state.

Mr. Rawat also said the government has declared the minimum support price or MSP of Rs 15.64 for organic wheat. Uttarakhand's organic produce includes wheat, maize, buckwheat, ragi and other coarse grains.

Dr A.K. Yadav, popular Director of the National Centre of Organic Farming, Ghaziabad, addresses the South Asia Conference on "Outstanding Organic Agriculture Techniques"

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expect. The organizational structure moved almost seamlessly between OFAI and UAS right from Dr. P. G. Chengappa and Dr. S. Jaganath through the entire faculty and staff. We worked as one and that is the secret of our success.

Everyone admired the absence of formalities at GKVK campus. It felt like an OFAI event anywhere in India.

Altogether more than 24 power point presentations were made on all aspects of organic farming. With the exception of five, all the rest were done by organic farmers. This is an unprecedented development that will inspire others in future.

All the major solutions including jeevamrut, panchagayva, fish and egg solutions, plant extracts for insect repellants, amrut pani, amrut mitti, vermiculture, biodung, seed preparation, etc., were made on the spot. Some workshops had to be repeated six times due to demand.

All the main hall presentations and the workshops were videographed under the direction of Dr Sultan Ismail. He worked closely with Amrut, the videographer from Belgaum. As a result, OFAI now has the entire proceedings professionally done on a set of DVDs.

Conference delegates were amazed to encounter the huge selection of books on organic farming in various languages displayed in a conference room next to the main hall. The booksale was organised by Other India Bookstore from Goa. The Bookstore made a record Rs.2 lakh sale on just two days.

The secret of the conference's success?

Several factors. One, wholehearted support from Dr. A. K. Yadav (NCOF) and Dr. P. G. Chengappa (Vice Chancellor, UAS) and his staff. They also helped with University accommodation.

Third World Network funded the travel component of the 50 plus foreign delegates. For the first time instead of NGO representatives, we insisted (and got) organic farmers as participants. For many, it was their first visit to India.

The best organic farmers from all over the country made it a point to attend.

Informal atmosphere throughout. Farmers were free to attend any session or workshop. No restrictions were placed on any one to attend any specific item on the programme.

Organic farmers were in control of the presentations and main workshops throughout. It was their show. They carried it off in style.

The stage was decorated by a specialist group led by Mr. Chandrashekar from Shimoga. Two cultural troupes regaled the audience.

Excellent organic food prepared by "green caterers" Bangalore Urban Spaces Pvt. Ltd., who sourced their organic materials to Aparna of Adi Naturals.

Crunchy dinner from the Millets Network of India (MINI).

Excellent accommodation provided by H.R. Jairam of Era Organics who allowed the organisers to turn his eco-serviced apartments into a home for the foreign delegates, with plenty of good organic vegetarian food and a very cheerful staff.

Professional sound and video servicing by Ravi. At the end of the conference, he provided us CDs of all the powerpoints without even a request from the organizers.

Hard pre-conference work done by Miguel Braganza, Nyla Coelho, Reshma Pednekar and Sonali Chari from the OFAI central secretariat.

There were many shortcomings. Few people complained. Everyone was just happy to be there, participating in a great learning event which will be remembered for some time to come.

Events calendar

11th NSC Meeting

The 11th meeting of the NSC will be held in January 2010. The new NSC will be constituted for the years 2010-2013. The NSC will also elect the new MC at the same meeting.

NIOFC-2

The 2nd NIOFC [North India Organic Farming Convention] will be held at Indore in February 2010. Delegates would be invited across North India. Dr. Bharatendu Prakash and Mr. Shoor Vir Singh will coordinate the event.

PGSOIC meeting

The last PGSOIC meeting for the financial year 2009-10 will be held at Ranikhet, Almora District of Uttarakhand state in March 2010 and will be hosted by Grassroots [PHGD] Foundation. Kalyan Paul and Miguel Braganza will coordinate the event.

Silver Jubilee of Bhopal Gas Tragedy

The NSC adjourned from its 10th meeting at Shahapur-Bhopal to perform "Shraddhanjali" in memory of the victims of the Bhopal Gas Tragedy of 03 December, 1984, at the memorial erected near the "Union Carbide/Dow Chemicals" factory in Bhopal. On 03 December, 2009, is the silver jubilee of this horrendous tragedy created by the pesticide industry. Victims of the tragedy and NGOs working with them requested that OFAI member organizations mark the day in a befitting way, specially by a vigil at the closed pesticide plant in their locality.

3rd OFAI Biennial Convention:

The venue, dates, theme and programme of the 3rd Biennial Convention of organic farmers in 2010 with focus on interactive learning instead of presentations (as decided by the MC in the review of 2nd Biennial Convention at Trichy on 19 October, 2008) were discussed in detail. Various venues like Bhubaneshwar-Orissa, Bijnore-U.P, Ahmedabad-Gujarat, etc., were considered as the venue for the third Biennial Convention of the Association scheduled in 2010. It was finally decided to hold the event at one of the three possible venues in Gujarat, viz, Ahmedabad, Anand or Vadodara, as the previous conventions were held in Maharashtra at Wardha in 2006 and Tiruchirapalli-Tamil Nadu in 2008.

Responsibility for works is to be allotted to NSC members for the convention and an Organizing Committee to be appointed. Mr. Kapil Shah would identify the venue based on availability of facilities for accommodating about 450 delegates from other states and about 1200 delegates in all for the convention. The Organizing Committee would decide on the chairperson at each meeting. OFAI CS Director would be the Convener.

SAC: How Organic Farming Can Feed the World!

"Organic farming holds the key to long term, successful, self-sustaining agriculture. Organic farmers can feed the world!" Those, in brief, were the principal messages resoundingly delivered by South Asia's pioneering organic farmers at the conclusion of a two-day conference at Bangalore, India on 10 and 11 September 2009.

The conference was convened to enable farmers from the Indian sub-continent to share notes on the "outstanding organic agriculture techniques" which they use in their fields. It was organised by the Organic Farming Association of India (OFAI) and Third World Network (TWN) in association with the National Centre of Organic Farming (NCOF) at the University of Agricultural Sciences (UAS), Bangalore.

The conference was inaugurated on Day One by Mr. S.K. Patnaik, Joint Secretary (Horticulture) in the Ministry of Agriculture, Government of India. The Vice Chancellor of the UAS, Dr P.G. Chengappa presided. He later released the fourth edition of the TWN publication, The Organic Farming Sourcebook.

Around 50 organic farmers from Bhutan, Nepal, Sri Lanka, Bangladesh, Ethiopia, Malaysia and China joined the conference in addition to more than 400 organic farmers from within India.

The unique feature of the knowledge-and-skills-share event was its faculty. Academics from universities were generally kept at bay (as most of them do not have much to contribute to the subject anyway) while organic farmers took centre stage. It was an exhilarating experience to see so many ordinary men and women, almost all practising organic farmers, many without the so-called benefits of even a college education or English, delivering with aplomb powerpoint presentations based on their own field experience.

So much active learning took place on the two days of the meeting that all sessions were house-full and even announcements for tea and refreshments could not induce people to leave the main hall or the demonstration workshops.

Agricultural scientists from the University who attended some of the sessions had to concede that in many areas – like the use of beneficial microbes to create living soils, preparing economic seed material, restoring degraded farmland – the organic farmers were far ahead of the academic community in using innovative methods to solve problems considered extremely serious (or even hopeless) by conventional farmers.

Learning how forests farm

Organic farming goes back a long way in India. India and China in fact have been doing organic agriculture for forty centuries. Yet less than half a century ago, these "agricultures of permanence" made the serious error of hastily adopting the so-called "Green Revolution" package of techniques comprising new hybrid seed varieties, chemical fertilizers and pesticides. This decision ensured that their agricultures would henceforth have to struggle to survive from year to year. Modern conventional agriculture has introduced enormous instability in all aspects of farming, from seed availability to harvest disposal. Failure of modern agriculture now leads routinely to farmer suicides, by the thousands every year.

If that were not bad enough, the scale of dependence on external inputs is also seen as wholly undesirable. Large countries like India are now dependent on foreign countries for the raw materials from which fertilizers are manufactured: petrochemicals from the Arabian Gulf. Since these fertilizers need water to dissolve and to be conveyed in soluble form to the plant, and also to increase the osmotic potential of the soil water, large investments in artificial irrigation have been equally demanding, causing their own brand of ecological havoc and distress to rivers and watersheds. Conventional, mechanized agriculture using combine harvesters also compels the farmers to adopt monoculture of a single crop over large tracts of land, a practice that degrades the soil. In contrast, traditional mixed cropping practices, using as many as 17 different types of crops from cereals and millets to pulses and oilseeds in one acre of land, enhances soil quality.

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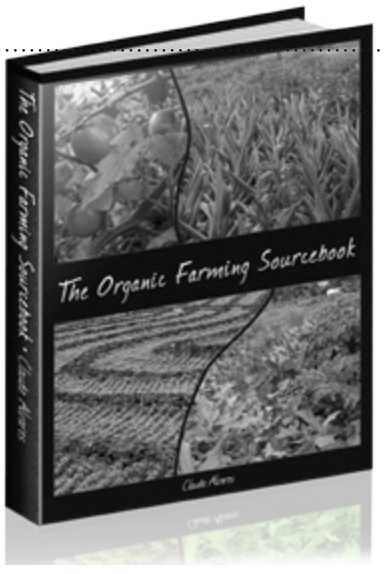
New Organic Farming Sourcebook Released at SAC

Vice Chancellor of University of Agricultural Sciences, Bengalore, Dr. P. G. Chengappa, releases the fourth (completely revised and updated) edition of *The Organic Farming Sourcebook.*

Pp.460 Rs.500 (post and packing free)

Members of OFAI have the good fortune of ordering the book for Rs.350 (including post and packaging free). Please contact the Central Secretariat for your copy. You will have to quote your OFAI ID number. DD/Cheque may be drawn in favour of The Other India Bookstore", payable at Mapusa, Goa.



The Organic Farming Sourcebook is written and edited by Claude Alvares with the assistance of Nyla Coelho. The book contains almost everything connected with organic farming in India, including a vast directory of organic farmers. Packed with pictures, the book now includes new chapters on GM seeds, farm animals, especially indigenous cows, and a comprehensive list of green or organic stores from all the different states. For your copy call 0832-2255913 (Reshma) or email: myofai@gmail.com or simply write a postcard to:

OFAI Central Secretariat, G-8 St Britto's Apts., Feira Alta, Mapusa 403507 Goa.

The delegation of organic farmers from Bhutan at SAC

The package of hybrid seeds, mechanized equipment like tractors, irrigation infrastructure, chemical nutrients and synthetic pesticides has been promoted on the basis of an unnatural assumption: that it is the role of farmers – assisted by profit hungry corporations, international agri-research centres and banking institutions – to supply food to plants.

In nature, however, left to themselves plants are able to secure food for free. Has anyone, in fact, ever seen anyone feeding the Amazon forest with chemical or any other fertilizers? Forests manage all their nutrients themselves. They generate and store them without human assistance and can thereby survive and prosper on a millennial basis.

Human beings, in fact, are unable to create natural forests. Science today concedes that the best way to create a forest is to let a plot of land be by itself without any human interference or intervention. By a process of what is called "natural progression," nature will ensure the gradual emergence of a forest within 15 years.

Most people however – especially the urbanised educated class, deeply alienated from nature – are convinced that plants cannot grow or prosper without the assistance of chemical fertilizers supplied by huge conglomerates. In the case of their own body's nutrition, they hardly ever think that swallowing nutrients in liquid form is adequate for a normal life. In fact, people fed liquid diets through tubes are mostly found in ICUs. Why then are plants treated differently from the way human beings feed themselves? When did this notion – that unless plants have something constantly "done to them" they will not grow and not produce – creep into the modern consciousness?

Albert Howard, the founder of modern organic farming, wrote that the entry of chemicals into agriculture occurred when companies manufacturing explosives and weapons found themselves without a market or niche once World War II was over. Interestingly, we now use organo-phosphorus insecticides based on the poisonous properties of phosgene gas discovered during WW-II. The same company that manufactured "Agent Orange" to defoliate the tropical rain forests of Vietnam during the unfortunate war of the 1960s is one of the largest manufacturers of herbicides today. Modern agricultural theory conveniently reduced the plant to a combination of Nitrogen, Phosphorous and Potash (NPK), laying the grounds for a massive diversion of the deadly production of these war industries and their chemicals to agriculture. Agriculture has not been the same ever since.

Today companies – with the active support of governments – are continuously expanding their control over agriculture across the planet, taking it out of farmers' hands and messing it up. They should never have been allowed or invited there in the first place as agriculture has always remained a skilled preserve of people who always knew how to grow things for themselves, their community or the market.

That is why discussions in India on good agricultural practice have invariably turned to the forest. It has become a common enough wisdom that the best way to farm is to imitate (or replicate) as closely as possible the dynamics and cyclical flows of natural forests. At the SAC, the Organic Farming Association (OFAI) made a combined presentation of the outstanding practices of its pioneering founders. The principal idea was that the more closely you were able to replicate the practices of the forest, the richer the condition of the soil and soil life and the better the crop you could anticipate. The greatest consequence was the recognition that by doing this one could also easily cut oneself from dependence on companies, banks, seed suppliers, extension agencies, equipment manufacturers and university scientists.

In its presentation, the Association disclosed how farmers had created several techniques for replicating in their fields the rich littered floors of natural forests and the paradise these had become for soil fauna. Most farmers devoted considerable attention to the creation of mulches which not only protected their soils from the sun, but ensured the continued existence of beneficial microbes underneath. The audience got a rich visual treat on the huge expertise in vermiculture that had developed across the country and to the wide range of recipes through which farmers were increasing the populations of beneficial microbes and earthworms in their soils.

The successful imitation of the forest has been the singular achievement of the Indian organic farming community and it came to the fore at the South Asia Conference like a tidal wave. By the end of the two days most people who had come to learn were more than adequately convinced that here was a quiet revolution that needed no AK-47 guns or police or agricultural scientists or universities or even subsidy from the Government. Recently demised Masanobu Fukuoka had once spoken of a "one-straw revolution." These farmers had taken what he said to heart – that nature, looked after, is overwhelmingly generous. Farming on the basis of natural principles is the only trusted way. All other methods – including the need for unnatural GM seed – are wholly unnecessary, in fact, dangerous and therefore dispensable. They impress in the short term; they impress those who are always impressed with any new technology.

The second presentation on forests and organic agriculture at the SAC came from Ms Kamal Melwani, a researcher from Neosynthesis Research Centre in Sri Lanka.

Melwani focused on the uses of analog forestry to remediate water contamination caused by intensive use of agro chemicals. The impact was eventually felt on the ground water where concentration of nitrates, nitrites, chloride and potassium now exceeded WHO drinking water standards. She reported that 64% of infants in the Sri Lankan peninsula (where the Centre did its work) have methameglobin levels above the normal range. She also disclosed the alarming rise in spontaneous abortions linked to contaminated water supplies.

Melwani recounted that her group was contracted in 2001 to use bioremediation methods to reduce the concentration of nitrate and nitrite in the soil which had got there from chemical fertilizers. The principal means was the restoration of the vegetation in the micro watershed around a drinking water well. Over six to seven years, deep rooted plants were established forming a root web below the surface to draw up contaminants. The downward trend in nitrate concentration was indisputably established with the help of piezometers. (Control wells, on the other hand, continued to indicate an upward trend in nitrate concentrations.)

The project was able to establish that with the maturity of the vegetation there was a decrease of nitrate and nitrite within 4 years. The biodiversity created brought in birds, butterflies and reptiles. The pilot area was then converted into a production area for both trees and annual crops including vegetables. The technology guaranteed organic food at negligible cost when compared to conventional water treatment technology including reverse osmosis. The demonstration was replicated in other wells that had been rendered saline and contaminated with sewage after the 2004 tsunami disaster that hit the island republic.

These broad ecological perspectives set the tone of the presentations to come. Organic farmers thereafter addressed a bewildering range of issues organised around three major themes of importance to organic farming: a) soil and water conservation; b) problems faced

with insects, weeds and plant disease and c) raising and using organically grown seed.

Natural farming is good economics

Subhash Sharma, one of India's best known organic farmers, commenced the first session with a review of his own farming practices over three decades. Speaking only in Hindi, he recalled how as a farmer he had been inducted into the methods of a purely "destructive science". "In the process of farming with chemicals," he confessed, "I destroyed almost the entire micro-organism population in the soil, trees, birds, seeds, water, soil and personal energy and that is what caused the reduction in the yields."

In 1994, he turned 100% to natural farming. He uncovered traditional techniques like infusing the soil with liquid cowdung manures; he planted trees to host birds and regulate climate; he redesigned land use following a detailed study of the farm's contours which enabled him to catch and husband every single drop of water that fell on his land. Today his organic farm is a "mecca" for farmers and scientists alike.

N. Deva Kumar, former Director of the UAS-Bangalore's Organic Farming Research Centre at Shimoga in Karnataka State, explained to the participants how best they could prepare microbial mixtures and just when and at what stage they ought to use them for maximum benefit. Deva Kumar shared research which indicated that populations of beneficial microbes in fermented solutions used commonly nowadays by farmers attained their maximum potency always a few days after they were prepared. He said using these mixtures either before or after the peak period would not generate the results expected. Perhaps this was the reason why some farmers found they were getting varying results from their own prepared microbial solutions. The problem was not with the solutions prepared, but with the timing of their use.

Susan Burnell Edwards of the Institute of Sustainable Development in Ethiopia (Africa) made some heartening disclosures about organic agriculture at the conference. She observed that of 13 million farmers in Ethiopia, 8.5 million use only natural fertilizers and their own seeds. There are already 1,37,000 certified organic farmers.

ISD started its extension work with farmers in 1996 assisting to rehabilitate degraded and eroded land through the use of plants, specially grasses. More recent work has concentrated on encouraging farmers to make compost. The association has kept detailed records of the real difference that compost can make to crops like maize, Faba beans, finger millets, etc. For example, she said, yields have risen from less than 5 quintals per hectare on non-composted plots to around 25 quintals per hectare when compost was properly applied. Finger millets with compost produced yields of around 78 quintals per hectare. ISD is now introducing SRI methods in the production of finger millet and other crops.

The first session concluded with Dr Sultan Ismail, India's ace earthworm specialist, discussing the need to make an intelligent choice of earthworm species if they were to be used for agriculture. Though he was not against the use of exotic species that had been imported into India in the past from Africa and the US, his own work in the field – and research done by his students who also attended the conference – clearly indicated that on most counts, indigenous worms outperformed exotics and had far greater beneficial impacts on soil microfauna. The introduction of exotics, on the contrary, often led to the decline in the population of indigenous worms. Dr Ismail showed slide by slide how one could harvest naturally occurring earthworms in the soil and use them for vermiculture and vermicompost.

Several other key ideas on sustainable agriculture emerged during additional sessions addressed by organic farmers. These included:

Biodiversity-based organic farming

V. Ravi, an organic farmer from Tamilnadu State (who spoke in Tamil) showed the audience how he had converted his farm from a monoculture of sugarcane into a biodiversity-based organic farm after he had become convinced that organic farming based on single crops was also against nature. He told the conference that some of the routine things that farmers do including clearing of natural vegetation and planting single crops were causing huge losses by way of genetic erosion in the country's resources.

His own farm today has more than 40 species of plants and trees. To support this biodiversity, all organic matter produced is left on the soil without disturbance and contributes to effective rain water harvesting, just like in a forest. His banana crop residues are decomposed by the action of termites. The banana plant stalk itself is a good food for earthworms. Ravi said he had studied all the soil organisms on his farm including earthworms, termites, ant, snails, rabbits and spiders. His farm includes several varieties of fodder grasses. He has based his farm dairy on native breeds of buffalo and the Tellicherry goat.

For Ravi organic matter is a key component of the soil and without a good population of trees sufficient quantity will not be available to the farmer. He therefore used bamboo, glyricidia and other local trees including pathimugam, kumil and malaivembu which can produce enormous quantities of biomass and timber in less than five years.

Begari Sammamma, a woman small-holding farmer associated with a womens' grassroots organization in Andhra Pradesh, spoke of her own experience with biodiversity based farming. The soils in her village are very poor, she said. Despite this, they grow 15-20 food crops per acre. These include a variety of millets, legumes and oil seeds. Sammamma's story was remarkable testimony of how the village women that she represents eat food that is tastier, healthier and more nutritious than their counterparts in the city – who eat rice day in and day out – and how women can also have complete control over their seeds, crops and food.

Organic techniques for restoring degraded farmlands

Ms M Revathi of the Tamil Nadu Organic Farmers' Movement spoke of her involvement in using organic techniques for the rehabilitation and revival of lands affected by salt water after the tsunami disaster of 2004. These methods were tried out successfully by her association in Nagapattinam, India; Banda, Aceh, Indonesia; Ampara, Sri Lanka and in the Sundarbans of West Bengal, India.

Revati explained how they first ploughed the salt-affected lands thoroughly. Trenches were created along the fields. These were packed with coarse material to absorb saline water and to encourage the microbial population to increase. On the ploughed land daincha seed was broadcast to provide the required biomass and to initiate soil activity. Farmers were shown how to prepare panchagavya (a popular recipe for dramatically increasing the population of beneficial microorganisms). Large numbers of vermicomposting units were also set up to produce additional organic manure to save on input costs. Through these methods, in less than a year, fields were replanted with paddy successfully to the absolute amazement of government officials and international agencies who had earlier thought of solving

Rajani Patel from Gujarat explains the on-farm preparation of plant repellants

Ms M Revati has a dedicated group of listeners as she explains the techniques of repairing lands affected by salt water from the 2004 tsunami that hit south Asia and Indonesia

the problem by simply dumping huge quantities of gypsum in them.

Deepika Kundaji, an organic farmer from Auroville (on India's east coast), made a beautiful presentation on how one could grow food on severely eroded lands. She told the story of a 6 acre plot at Auroville which Bernard deClercq and she had taken up for rehabilitation several years ago with the aim of turning into a natural forest and wilderness. When they first took up the land it had no topsoil, and was a compact mass of only pebbles and laterite.

The main challenge was how to build soil, as cultivated plants need a minimum of 6 inches of good soil. Their ecological rules forbade them bringing soil from outside, or even purchased compost or manure. All biomass had to be grown at the site and all resources would come only from the home and surroundings. No paid workers were taken as Deepika and Bernard worked without grants.

Their process of soil building included immediate measures to protect the land from further assault by the elements, creating water bodies and contour bunds, establishing pioneer vegetation to produce biomass at site, creating raised beds and then building up and maintaining organic matter by creative use of local resources. Deepika's slides showed how this was done and how it could be replicated anywhere, provided the principles of ecological restoration of soil were strictly followed. Once the soil was restored, the next stage of working with the land was to ensure that no more soil was turned.

Deepak Suchde, another expert organic farming teacher from Madhya Pradesh, made an elaborate presentation on the principles of "natueco farming" based on the theories of Prof. Dabholkar, a popular scientist from Maharashtra who worked with farmers to produce miracle crops without having to use chemicals and poisons. Suchde said the two problems farms faced were decline in soil carbon and reduction in the soil's water-holding capacity, both sourced to green revolution techniques. Constant tilling of the soil was itself disruptive, but farmers knew little else.

Suchde spoke of his work at his Krushi Teerth farm on which a quarter acre plot had 150 varieties of crops and it generated food for a family of five. He showed the audience how we can manufacture "amrut pani" (water elixir) and "amrut mitti" (soil elixir) that would meet all the problems faced with current day soils already rendered sterile and ruined by chemical farming.

Dr A Thimmaiah made a slide slow on the growth of organic agriculture in Bhutan where he works presently as Adviser to the Bhutanese government. Ten organic farmers had come from Bhutan and they stood by with recognisable pride as Dr Thimmaiah showed pictures of successful organic vegetable growing, composting and other organic farming techniques (including preparation of biodynamic compost) and microbial recipes like panchagavya that are now a way of life among organic farmers in Bhutan as well.

Facing insects, disease or weeds

One major problem facing all farmers, organic or conventional, is the appearance of troublesome insects, weeds and plant disease. S.R. Sundaraman, a highly respected and knowledgeable organic farmer from Tamilnadu, made the main presentation on techniques farmers can use to solve most of their plant disease problems and any difficulties with insects.

The interesting thing about Sunadaraman is that he not only functions as a knowledge centre, but his knowledge and expertise keep growing. Universities find it hard to keep up with him. Being two decades ago a chemical farmer, he knows what he went through and why chemical methods failed.

Sundaraman has worked with interested colleagues and engineers to create microorganism-enriched mixtures (which he calls MEM) for the control of soil-borne diseases, nematodes and root grubs. He also has a large number of recipes made from leaf extracts, buttermilk, waste fish and egg extracts, panchagavya and some unique other solutions which he calls "fruit gaudi" and "archae". While some of these are bacterial preparations, others deal effectively with unwelcome visitors to his soils, including grubs. All his recipes and techniques today are freely available to other farmers.

Sundararaman was followed by Joseph John, another organic farmer, who presented a wide range of non-chemical based bioremedies for plant illness and disease.

On behalf of herself, her husband Dr Anurag Goel and their daughter Maya (a family of organic farmers from Coorg), Sujata Goel shared ten years of rich insights on their organic farm which grows largely coffee and spices. Ms Goel told her attentive audience that plants have their own natural defence mechanisms and it is far more effective to work in tandem with the plant's own defence strategy than attempting to bypass it with deadly chemicals. Unless we understand these natural defence mechanisms, she said, we would continue to make costly and unnecessary mistakes. Using deadly sprays of chemical poisons not only suppressed these defense mechanisms, they ruined the product as well since pesticide residues are bound to remain after the harvest since most pesticides are non-biodegradable. The Goels are trained microbiologists and lab technicians who deserted Delhi to move to Coorg in south India where they took over an existing spice farm and turned it completely organic over a ten year period.

One of the youngest and most dynamic presenters was B N Nandish who started farming after he intentionally discontinued his pre-university studies. Nandish started natural farming in 2000. His main proposal at the SAC was about using green manuring plants. He said he was using over a hundred different species. His fields look like forests, but his yields were above average. His presentation fairly electrified and astonished the audience.

Conventional agriculture, said Nandish, is obsessed with being clean. This means all organic matter is removed, that the farmer is in a state of constant warfare with weeds. The exposure of the soil (after cleaning) encourages loss of moisture and soil erosion. Nandish calls this "do-everything culture," where the farmer is constantly doing unnecessary things and eventually loses out.

His solution: use the family of plants that will fix atmospheric nitrogen free of cost. Nandish said there were over 12,000 species of such plants in the world and they were all available freely to farmers. There were annuals, bi-annuals and perennials and they included herbs, shrubs, twines, creepers, bushes and trees. They also produced a bewildering range of useful goods for human beings, from fibre to gum.

He dubbed weeds as "misunderstood" plants. In fact, weeds are an index of the quality of the soil, of diversity. Conventional farming comes equipped with powerful herbicides or weedicides and patented seeds resistant to certain corporate-controlled weedicides. Destroying weeds (like grasses) is impossible and nonsensical. Farmers can, by selective introduction of certain species of green manuring plants, gain full control over what we call weeds.

An ideal organic farm, Nandish related, should be able to feed human beings and provide

food for birds and animals. Its income should meet all expenses. The principal crop should be harvested with a minimum of labour and time. One should be able to feel cool air, the aroma of soil, flowers and fruits, see colourful creatures, have varieties of seeds, vegetables and fruits to taste, together with the pleasant noise of bees, insects, birds and animals, just like in a forest.

Just as Nandish thrashed public perceptions about weeds, Dr Mahadeo R. Pachegaoncar, an organic farmer from Maharashtra, upset several popular notions of the activity of termites. He said termites should be used on organic farms. They would only help the soil function better. Termites are known to chop any form of lignocellulose (paper, wood, jute, cotton) into pieces. However, just like with the cow, it's what happens in the rumen of the termite that is of great importance: the bellies of these tiny beasts have a goldmine of microbes that are rich sources of enzymes for converting lignocellulose into organic manure and biofuel. In fact, this is exactly how termites assist forests to survive, by helping in the recycling of dead materials.

Salma Jafferali from Kerala made a presentation on the techniques of applying non-chemical repellants. Organic standards prohibit organic farmers from using chemical sprays that kill insects. Killing is a prohibited word in such agriculture. In fact, organic farmers do not refer to insects as "pests". The term "pest" is an entirely human construct. In nature we find only insects, not "pests". The only activity that is permitted in organic agriculture is the repelling of insects that compete with us for crops. Those organic farmers who are still not able to achieve balance in insect populations rely on insect repellants. These drive away but do not kill problem insects.

Of the biological forms of control, noted Ms Jaferali, that by natural predators is the most effective, so populations of lizards, frogs, spiders, insects and birds should never be disturbed. In the intervening period, till these populations are stabilized, one can rely on effective herbal repellants. For the preparation of these, select those plants which are not eaten by cows or goats; plants that yield a milky sap; plants that have a bitter taste (neem); plants that give off a bad odour and plants that are poisonous.

Raising organic seed

One of the problems most organic farmers face is the availability of good organically grown seed. Sangita Sharma, an organic farmer from Bangalore, introduced a rich and colourful variety of vegetable seeds available to organic growers through Annadana in India and the Kokepelli Group located in France.

She also demonstrated extremely simple methods of seed extraction, treatment and conservation which could be learnt and exploited by any farmer anywhere. Through her slides Ms Sharma showed how organic farmers faced with scarcity of organic seeds can grow their own seed. She also explained the different processes of dry and wet extraction of seed from ripe fruit. She showed how one can easily maintain varietal purity through the adroit use of mosquito nets.

She was followed by Deepika Kundaji, another organic farmer who has perfected the art of reproducing and conserving organic seeds in the most simple, cost effective manner. Deepika cultivates and preserves 80-90 varieties of all kinds of vegetables, a miniature seed wealth centre as a home activity, ideal for small and marginal farmers. She made a presentation on small scale production of home garden seeds.

She dwelt first on simple techniques for keeping varieties pure (for example, using mosquito nets to control and prevent cross pollination). She also explained procedures for selection of seeds from the harvest, their processing and storage and finally, doing simple germination tests. She said she shared at least 3,000 packets of seeds every year with other farmers in one of the most carefully documented home-seed production initiatives available in India.

Ms Alka Najan, a woman small-holding organic farmer from Aurangabad in Maharashtra, showed the conference how her bag of tricks for dealing with insect and disease problems in cotton cultivation was far more effective, if tried, than Monsanto's Bt cotton which was mostly of benefit to Monsanto.

Begari Laxmamma,also a marginal woman farmer from Andhra Pradesh, demonstrated her methods of seed saving. "Seed keeping is our tradition. It is in our blood. We supply seeds to everyone," she told the audience. She described the process of drying the seeds from the harvest and the use of ash and neem leaves as effective protection agents. After the seeds are embedded in neem leaves and ash, they are effectively sealed in small baskets with a layer of clay, dung and ash. This traditional method has kept seeds from insect attack for centuries. She described methods of keeping pulses and rice seed viable with these methods for two to three years.

In his presentation, George Antony, a small farmer from the State of Kerala, dwelt on various devices that he used to keep his farm free of interference from rats and insects. These included a mechanical "yellow trap" which effectively trapped insects that caused damage to vegetables and tapioca.

Workshops galore

The South Asia Conference made another striking departure from present day conference styles. While some farmers continued with their powerpoint presentations in the main hall, dozens of farmers set up workshops outside under the shade of trees to demonstrate in practice several of their unique recipes. Most of these demonstrations focused on how to make a range of microbial mixtures and plant extracts from materials and resources available on farmers' own farms.

Where an academic conference would have demanded computers, markers, pointers and xerox machines, these workshops required a more demanding set of materials which included quantities of cowdung, cow urine, sugarcane stalks, milk, butter milk, leaves of various plants, knives, cutting boards, waste fish, eggs, etc., all of which the organisers had requisitioned from farms around Bangalore and from the University's own veterinary campus for the workshops.

One of the most popular of the workshops was conducted by Dr K Natarajan, a medical doctor who also runs an NGO that promotes organic farming. Dr Natarajan is the individual who first came up with the idea of a modified panchagayva formula which is now used by most farmers in India to increase microbe populations in their soils. (Despite his recipe being unique, Dr Natarajan refused to patent it. He ensured it would never be patented by giving it wide publicity. Now panchagayva is made by farmers and also by a few small industries. Farmers can buy it or make it.)

Dr Natarajan conducted several repeat workshops over two hours, patiently explaining the ingredients, mode of preparation and final uses of panchagavya. (His powerpoint presentation introduces the audience to various scientific studies that have validated the use and benefits of this traditional fermented solution.)

In another corner, S.R. Sundaraman showed participants how to make "archae" and "fruit gaudi", microbial mixtures that farmers could produce with benefit for themselves.

Deepak Suchde explains the process of making amrut mitti

While Salma Jaferali made a presentation on insect repellents in the hall, her husband, A. Jaferali, conducted a workshop on how to manufacture insect repellents from specific plants combined with effective microorganisms. Rajani Patel, an organic farmer from Gujarat, demonstrated the preparation of insect repellants from recipes extracted from ancient Ayurvedic texts.

N. Gopalkrishnan, a wizard earthworm expert and organic farmer from Trichy in south India set up six repeat demonstrations on how to make fish and egg solutions which – once fermented – worked miracles on crops. While he talked, a videographer carefully filmed him. (The videos are scheduled to go up on the OFAI website.) In another corner, Sultan Ismail's students showed people the art of raising earthworms and preparing biodung.

Others who conducted practical workshops and demonstrations included Sarvadhamman Patel, Deepak Suchde (water/soil elixirs), Deepika Kundaji (seed conservation), Jayant Barwe (jeevamrut preparations), Pradip Nikam (making sugarcane planting material), M. Revathi and others. Seeing is believing. Doing is better. Participants were eager to soil their hands. Buckets of water and soap were thoughtfully provided. All the recipes were freely shared, a grand tradition that has remained alive among farmers till today and which both corporates and governments with all their patents, patent laws and thick heads simply refuse to understand.

In the evening of the first day of the conference, a grand panel of fifteen of the oldest and most experienced organic farmers was set up to answer any technical problem raised by any organic farmer in any language from the audience. The panel discussed specific problems posed over a period of 90 minutes without flagging interest.

The conference concluded with splendid reviews by Dr K Narayan Reddy (Bangalore's most well known organic farming pioneer); Sarvadhamman Patel, India's best known biodynamic practitioner and T.G.K. Menon (an experienced organic farmer and promoter from Madhya Pradesh). They recounted vivid insights into the organic farming process garnered after decades of experience in their fields.

This was the first conference where all food served to participants was sourced to organic farms. The Millets Network of India provided a dinner based purely on millet preparations. Kailash Murthy, an organic farmer from Mysore, brought 200 kg of papaya for delegates to relish and enjoy. By the end of day, more than 100 written applications had come to the organizers for the conference DVD containing all the power point presentations which are now being despatched to them.

All the various powerpoint presentations described in the article above are available on a single CD which can be ordered from OFAI central secretariat

They can also be downloaded free from the website of the Organic Farming Association of India (www.ofai.org)

Love letters from SAC participants

Dear Claude and Miguel, and all your efficient assistants,

Many many thanks to you both and your extremely effective team, including all the farmers who helped with their contributions for a total wonderful experience. My head is still trying to remember some 10 percent of all the fascinating information and views expressed and shared in the 2-day Conference.

I would also like to express my thanks and appreciation to "The Other India Press" and the great spread of relevant printed information at a very affordable price.

I hope that in a few more years, the organic movement in Ethiopia, now hardly two years old, will have built up some of the momentum and range of competences I witnessed in your Conference.

Last, but not least, the advice to travel by train was very good. Not only was I able to see a small glimpse of India including the sad challenge of the drought in some parts this year, but also enjoyed the warm hospitality and friendship of travel companions.

With all good wishes and the hope that the organic agriculture movement grows stronger and stronger keeping farmers on the land making a decent and healthy living for themselves, their families and their communities.

Warmest best regards,
Sue (Susan) Edwards
Institute for Sustainable Development
Box 171, Code 1110, Addis Ababa, Ethiopia
tel: +251-116-186774 / +251-911-200834 (mobile)
fax: +251-116-186769
e-mail: sustaindeveth@ethionet.et (office); sustainet@yahoo.co.uk (personal and office)

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Dear OFAI,
I am one of participants from Bhutan who attended during the organic conference. It was a great pleasure for me to attend such a wonderful conference and I shall work for the sustainable organic farming here in Bhutan. In fact I shall be grateful if you could send me a copy of organic conference Presentation CD. The copy can be sent to me in the address mentioned below.

I shall be grateful as always.
With best regards.
Tashi Tshering
Asst. Marketing Officer
Agriculture Marketing Services
Ministry of Agriculture, Thimphu: Bhutan
Mob:+975-17600068; 77228296 Email: tt2shering@gmail.com

• • •

Dear OFAI,
I thank you on behalf of the Tibetan Participants who have been participated recently in the conference on organic farming conducted by OFAI. We really learnt a lot from this two days training and we also try our best effort to transfer such ideas and knowledge to our farmers.

Dhondup Tshering
Organic Research & Training Centre,
Tibetan Farm Project
P.O. Bylakupee - 571104
Mysore District, Karnataka
Phone (O) 08223-258783 / mob: 9886742933
E.mail: dhuntsering@gmail.com

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Dear OFAI,
We all arrived safely in Srilanka and are back to work. First of all I would thank you and your team for inviting us to attend South Asia Conference on "Outstanding OA Techniques" on the 10-11 th and 12th field trip. It is very useful for our team specially to our two organic farmers and Department of Agriculture, They all learnt good practices and how Indian farmers are in organic farming. This conference was useful to me to organise an Eastern Organic Farmers Forum and influence Government machinery to support the farmers through the Department of Agriculture. The two day conference went very well and lots of knowledge learnt from that. I know how all of you put all efforts to make this conference a success. Congratulations to you and specially Mr. Miguel who did all other arrangements. I also thankful to Ms. M. Revathi, who recommended us.

As you promised, we will hope that you will send the whole program presentation in CDs. Please send that CD to following address to me, I will send to the respective other participants. My address:

M.Yogeswaran,
Programme Manager - East,
No: 117, Main Road, Kallady,
Batticaloa. SriLanka.
Oxfam GB
tel: (0094) 65 2222676, 2227019 / fax: (0094) 65 2225878 / mob:+94 773237540
Email: MYogeswaran@oxfam.lk

• • •

Sir,
I was a part of the conference in GKVK, Bangalore on Sept 10-11. The conference was very well conducted and I benefited a lot from all its participants. I am myself an organic farmer since last five years. Thanks, once again for above.

Sameer Jhunjhunuwala
Madhav Nagar,Telhara,Dist-Akola,
Maharashtra
Ph:(07258)231608,9421833060 Email: sameer.telhara@gmail.com

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Editor: Claude Alvares

Organic Farming Association of India,
G-8 St Britto's Apts.,
Next to New Mapusa Clinic,
Mapusa 403507 Goa, India
Phone: 91-832-2255913