PADDY

A NEWSLETTER FROM THE SAVE OUR RICE CAMPAIGN

No. 2 • January 2009

Editorial

We were in Wayanad mid-December participating in a rice harvest festival in a small village. The harvest season in the village is coming to an end. Everybody, men, women and children are in the field doing something or the other related to paddy harvest. Few harvest machines were also working in the field trying to finish the harvest as fast as possible.

During the seminar there was a session where farmers from Kerala and Karnataka shared their experience in paddy cultivation. Most of the farmers were so old and experienced that it was not possible for them to share their vast knowledge in 10-20 minutes (as scientists and academia generally show their expertise in seminars). There was a beautiful and informative exhibition of paddy seed diversity. This had drought resistant varieties, flood resistant varieties, scented and medicinal varieties, nutritious varieties and pest resistant varieties with local names. Many people including the Kerala state agriculture minister, who honoured the traditional farmers for their contribution to the conservation of paddy varieties, were seeing these varieties for the first time. They couldn't believe their eyes that such vast diversity of seeds is available with farmers and all of them have different unique qualities.

Farmers are great inventors. They have selected and improved many plants and animals which are edible for us and medicinal. Many farmers are creative and scientific. This they have proven through the last so many centuries by their work on enriching our agro biodiversity. But in the last half a century, suddenly farmers have become the illiterate and ignorant sector in the society. They are no more good in producing good seeds and other planting materials, no more good in ensuring food security, and no more good in facing the new challenges. They have to be taught on every aspect of farming and supported. Governments all over the world are now looking up to the scientific community and agri-business corporations to solve the issue of food security. One wonders, how without touching the soil, without staying in a remote village with all its limitations, how these scientists can develop seeds and other technologies which are suitable to such situations.

This is also a question of faith. When you believe in somebody, you give support. Our governments have lost faith in our farmers and their faith is more on scientists. Even while governments do not have money to support farmers, they have money to support scientific research. And agriculture research in the last so many years happens not in the field, but in the labs. In very recent times, research happens in test tubes and air-conditioned rooms. Now not only governments, but big companies are also interested in agriculture research, especially seed research.

From a creative work of farmers with soil and nature as the base, seed production has become a closed room sterile activity of few scientists and a trade agenda of some seed companies. And for this exercise they need the germplasm developed and protected all these years by the farmers and they do not want the farmers to claim ownership over it. This we have to understand if we want to understand the push for GE rice in the country.

Many companies are working to genetically modify rice, to supposedly make it pest resistant and fortified with beta carotene and to incorporate other features like flood tolerance. Genetic modification in agriculture crops was initially targeted towards cash/ commodity crops, the focus on grains like rice and wheat was a later development. Companies like Syngenta and Monsanto began research on rice strains and Syngenta also began actively patenting all possible gene sequences within rice, provoking Devinder Sharma, a leading agriculture activist to comment sarcastically that Oryza sativa can be renamed Oryza syngenta!

China, one of the leading rice growers and consumers in the world has been actively pursuing research on GM rice. Research has been going on since the last decade under the aegis of the Chinese Academy of Agricultural Science on genetically modified rice (Bt rice), the most important food grain in China. The pro-GM establishment claims that the major threat to the rice crops in China are the stem borers that affect about 3.3 million hectares of rice fields resulting in a loss of about 5% of the yield. However, there has been significant opposition and controversy surrounding this approach from scientists and researchers around the world, who have questioned the scientific, health related, ecological, economic, and regulatory basis of the decision. Kong Luen Heong, an entomologist at the International Rice Research Institute in Los Baños, the Philippines, calls pest-resistant GM crops a short-term fix for long-term problems caused by crop monoculture and overuse of broad-spectrum pesticides. "Pests thrive where biodiversity is at peril," says Heong. "Instead of genetic engineering, why don't we engineer the ecology by increasing biodiversity?"[1]

Concern among critics of GM rice are based on crucial issues like health effects of GM rice (allergies), environmental consequences of transgene contamination and lax regulation which would exacerbate these problems. Fear about transgenes escaping and contaminating the non-GM crops is high and it worries environmentalists and traders alike, the former fear of irreversible contamination of traditional rice strains and the latter fear the loss of overseas rice markets. However, what exacerbates all these fears is the lax regulatory mechanism, the difficulty in implementing refuge zones required by GM rice in the closely farmed small paddy fields in China, the opaque decision-making behind closed doors, and the high stakes in GM rice.

The Indian scenario is not very different from this and it is incumbent upon us to derive some learning from the situation rather than blindly go on the GM band wagon. The agriculture establishment and regulators are rooting for GM rice and are blithely allowing field trials even in areas like Jharkhand, which is the centre of diversity for 1,000s of varieties of rice found in South Asia. It was in September 2008 that Dr. Suman Sahai reported that Mahyco was conducing field trials for GM rice in Jharkhand flouting all laid down norms and conditions. The farmers whose fields were leased were unaware that GM crops were being grown on their land, the test fields were not isolated from the surrounding fields of paddy, and the fields were also being used as thoroughfare, all these conducive to high chances of contamination of non-GM paddy. This blatant disregard during field trials is particularly disturbing as Jharkhand along with neighbouring Chhattisgarh and Orissa are centres of diversity for rice, and contamination of traditional varieties of rice can be very detrimental to India's food security.

On one hand India has accepted that there are high chances of contamination due to the introduction of GM rice, thereby keeping the basmati growing belt in India GM free to protect the lucrative basmati rice trade. However, the same argument is not being extended for field trials in other areas; there is scant concern about contamination of traditional varieties of rice or the future high prices of GM seeds. Ignoring the already bad experience with increased use of pesticides in Bt cotton, allergies experienced by workers, and animal deaths due to grazing on Bt will cost us dear.

The international agencies and multinational corporations are pulling out all the stops to get GM rice approved in most of the Asian countries, a case in point is the speech made by Judith Rodin, the President of Rockefeller Institute promising continued support for getting golden rice (a failed product) regulatory approval.

The most disturbing part of this whole exercise is that all of them need the time tested seeds developed by farmers. While ignoring our farmers' rights, in the end we are all depending on their knowledge and wisdom to ensure our food security.

The Editors

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[1] http://www.nature.com/news/2008/081015/full/455850a.html

Rice in Orissa - History, Culture & Traditions

by Debjeet Sarangi & Jagannath Chatterjee - Living Farms, Bhubaneswar

History of Rice in Orissa

Rice has been the principal food crop of Orissa much before the 14th century AD. When Wang-Ta-Yuan, the Chinese writer of the 14th century visited the State it was being grown in abundance. Other historical texts, like the Manasollasa of Somesvara and the Mahabharata of Sarala Das, too point out that paddy cultivation was the mainstay of the people of this region which was endowed with fertile land and had plenty of rivers running through it. Wild rice, it is known, was tamed by the tribals inhabiting the Jeypore tract of Orissa which is considered to be one of the secondary centres of diversity for rice. The similarity between the name Orissa and the Greek name for rice "*Oryza*" has led many to speculate that the name of the State derives its name from the crop known as *Oryza sativa*.

Import of Varieties

Thanks to the maritime skills of the Oriyas, the locals travelled by indigenously built decorated wooden ships called *boitas* to far off Burma, Indonesia and Sri Lanka. It is during the course of such business and plundering that popular varieties of rice from those lands may have been imported into the state to be later acclimatized and adapted as per local conditions. The important varieties from the neighbouring state of then undivided Bengal, home to rice eaters too, may have enriched the lands of the farmers of Orissa. Being in the possession of exquisite varieties was a source of pride for the farmer as it elevated his position in the society. Farmers often exchanged seeds just as coin collectors exchange rare coins.

Wild Varieties

Besides these cultivated varieties, wild varieties are found in the Jeypore tract, where the initial survey in the early decades of the 20th century had recorded 150 varieties, and also the Bhitarkanika coastal area where a wild variety grows abundantly in tidal mud flats based upon which many flood and salinity resistant varieties have been developed.

The Diversity in Rice

It is thus no wonder that Orissa once had 50,000 recorded varieties of rice. The actual number could have been more than 1,00,000 as record keeping was never the farmers forte. The Kings too were fond of rice varieties as rice is an important part of the Mahaprasad that is offered to Lord Jagannath every day. Even today there are huge stretches of land across Orissa that grow rice for the daily offering to the deity. The temple records, the Madala Panji, speak of many exquisite varieties that were regularly offered to the Lord. Myths describe how the Supreme Deity has on many occasions gone in a human form to the houses of devotees to feed them offered rice with his own hand.

Culture and Festivities

Paddy as well as rice, the finished product, form an integral part of all rituals of Orissa. It is offered to Gods in various forms, both in grain as well as various rice preparations and cakes, and is also crushed to form a paste that is used to paint various designs that decorate places of worship, an art form called the *jhoti*.

Besides the crop and its first sowing, the transplanting, the fertile soil "mother", the plough, the cattle, the reaping, the offering to Gods, separation of the grain, consumption, keeping apart as seed, storing, and even the trade of rice was occasion for celebration. Orissa is the only state in the world that believes that the "earth mother" menstruates and there is no ploughing in those days celebrated as the festival "Raja". Rice is associated with prosperity and the name "dhana" in Orissa signifies both the crop as well as wealth. It represents Goddess Lakshmi, the harbinger of wealth and prosperity, and is also used to invoke her. Lord Baladeva, elder brother of Lord Jagannath, symbolizes the plough.

Sri Ratnakar Sahu, an organic farmer from Patnagarh in Bolangir district, laments that rituals have become distorted and lost their true relevance because the varieties of rice that were central to many of them have become extinct. Nowadays people offer any kind of rice without understanding why a particular variety was recommended, he says. As rice offerings were partaken by all after being offered as part of the rituals, they had a beneficial effect on health when consumed at that particular time of the year.

The farmers of Orissa both worshipped and loved the crop and never failed to improve on practices, observed in Orissa since ancient times, leading to the enormous diversity of rice varieties.

Varietal selection and diversification

Seed selection was based not just on yield but also on other criteria such as food habit; puffed rice, puffed paddy, beaten rice, beverage rice, rice cakes, rice pudding, sweets, rice milk, stale rice in water, are some of the favourite rice preparations of the Oriyas; for ritualistic use, a variety of black rice, *kalakrushna*, was partaken while mourning for the dead, perhaps for its anti-depressant qualities; certain varieties are grown purely for festive use and are used as offerings to God called "*bhoga*"; length of the stem, long stem ensures the rice survives a flood and the hay can be used for thatched houses as well as cow fodder; time taken to yield; draught resistance - a variety called *Sarai* can grow even in scanty rainfall.

Rice was also selected and cultivated for medicinal value - malnutrition, asthma, arthritis, nutrition for the mother while weaning, indigestion, acidity and jaundice are conditions some native rice varieties of Orissa can address; aroma, certain rice varieties of Orissa can compare with the famous Basmati for its scent and taste; resistance to pests and disease; resistance to salinity; size of the grains, small grained rice does not break but long grained rice fetches more price in the market; size of the panicles - large panicles mean more grain per panicle; colour; taste; keeping qualities; and nutritional values.

Rice chaff was also used to fill up gaps in the famous Jagannath Temple without putting added load on the structure, a stroke of architectural genius according to modern engineers. Rice chaff serves as a part of cattle feed and is also consumed by the local population along with the grain in a special preparation involving a variety of rice.

Rice in Orissa is even known for the way it is stored. A particular variety of rice in South Orissa is stored in underground pits. The rice matures in the heat of the earth and does not cause discomfort to people who have the preference for raw rice but cannot digest it. This rice takes very little time to cook, just as raw rice, but tastes like boiled rice. It is known in local parlance as "*Khani paka chaula*" or "mined rice".

Thus rice in Orissa is associated not only with food, but also with rich history, traditions and cultural practices.

A Grandmother's Story

by Smitha Nirmalkumar

Australian Aborigines say that the big stories—the stories worth telling and retelling, the ones in which you may find the meaning of your life—are forever stalking the right teller, sniffing and tracking like predators hunting their prey in the bush. —Robert Moss.

I don't know if I am the right teller, but this story must have been stalking me for a long time without my knowing it, because the one who told it to me was my grandmother, who I fondly call *Ammuma*. Though this is as close at hand as stories can get, yet it's also a tough one to tell. How does one begin and end a story that stretches across three generations, four decades around five acres (and maybe a lot more)? The chasm between the storyteller and her audience was about the size of a generation, and among the many things missing, was a common language. The measures, the currency and the fields had all changed hands. The task seemed difficult, but what made it easy was the fact that here was a story that refused to budge till it was told; and which, I suppose, we managed to get across. Here it goes...

My grandmother, who's carrying her fourth child, is in Bombay when her 25 year old brother died. The news is kept from her and she comes back to her village with her newborn girl only to find her parents devastated by the news, having given up farming. Seeing that the family farm could come to an end, she decides to take on the job single-handedly and returns to her small village in Kannur, the memories of the fields she used to roam in before she went to the cluttered life in Bombay still fresh in her mind - the only thing that could possibly be counted, as 'on-the-job experience'. Thus life began anew with a home to look after and five acres of paddy fields to tend to.

Like all descriptions involving paddy, it is imperative to begin with the seasons when the cultivation is done and in this case it was done in *Virippu* and *Punja*[1] and the fields were called *Punjavayal*. After a few days the seeds are taken to the field and sown broadcasting them[2]. The field preparation is in itself a tedious process that begins with the marking, preparation of strong bunds, and flooding of the fields with water. For *Virippu*, the South West monsoons provide for the water, whereas for *Punja* irrigation water has to be supplied. This is done by pumping water from the irrigation channels using a large bucket called the *Dav*, which is

held with ropes on both sides by women who are continuously lifting water from the channels and tilting it into the fields.

The fields which are run through with a plough have to be smoothed out. The men do this by pulling large wooden slabs tied to bullocks on which they themselves stand and the fields get levelled along the way the slab passes. Transplanting comes next, with two women holding a long rope across the width of the field and others planting the small seedlings along the length of the rope held. The line of women moves sideways and backwards gradually. The long hours of backbreaking work is accompanied by songs which are instinctively started off by one, with the rest joining in. The necessity of tolerating the long hours of work of bending into the fields might be the mother of this invention. Ammuma is not sure when pesticides were introduced in the field, but preceding that leeches would inhabit the fields and the labourers complained of them. After the pesticides were applied the complaints stopped coming in. Along with the leeches, she claims, the crows and cranes have also dwindled.

The rice varieties to be sown were picked according to the seasons, usually *Chitteni* for *Punja* and *Kazhama* for *Virippu*. IR-8, *Mashuri* and *Kothambari Kazhama* were also grown. There was a variety, Red *Kunji Nellu* which was dutifully grown every year and most of it was offered to the *Edapara Thaiyyam* deity. Montesquieu said that "If triangles had gods they would have three sides." and like us, our gods too loved rice! On a more serious note, it also shows how important a part of our culture rice was. A temple ceremony required the devotees to cultivate a crop, mill it, clean it and offer it to the Gods, and so the actual worship began long before the ceremony itself, not in the temple by a priest but somewhere faraway in a paddy field by a farmer.

The paddy was harvested and all the processing carried out in the house yard, including boiling and drying it. The rice was stored in large wooden rectangular boxes called *Pattayams* which also doubled up as beds. Most of it was used for home consumption and the rest was carted off to relations, but nobody at home bought rice. It was always grown, until recently.

The most interesting description involved the one of *Kaipad*[2] lands that covered an area of 22 cents located close to the river. The fields remain submerged for about an hour everyday at different times in the day. *Orkazhama* was the variety used in *Kaipad* as it could withstand the onslaught of the waters without lodging and was particularly a choicer variety in taste. The *Kaipad* fields were the most profitable ones as they needed no fertilizers, since the dead fish and their excreta were sufficient manure. Our fields were farthest from the shore and *Ammuma* talks about the times the tide would come in and there was a scramble for the shore, and many a time she would get wet to the waist. The labourers, in between the preparation of fields, would also harvest the fish, prawns and crabs that inhabited it. There was a 100% yield on the paddy fields and though the labourers took home a lot of the produce, there was little to complain of.

The story wound around many lanes - there were other crops to raise, fruits got ripe, coconut had to be harvested, there were cattle to look after. In the meanwhile children grew up, got married and later great grandchildren arrived. The old house filled up with people for marriages, births and deaths and then became empty again. Farming went on at all times till it was not possible for her to go out as she was getting older, and the fields were all sold one by one. Many times while talking, her eyes welled up at the very thought of the old times, and I realized that, for her, farming was not just about making a living... it was a part of life.

"Every story has a beginning, middle and an end...but not necessarily in that order."

So please do not allow yourself to believe that this is the sorry end of a particularly sad story. Even today *Ammuma* does the household chores, is very particular that when the mangoes get ripe they shouldn't be wasted and will march out to the garden to pluck them herself. She still can hold her own when having an argument over the prices that labourers might demand and still loves telling stories of the paddy fields, though the fields have ceased to belong to her a long time back. So this surely is not the end....it could be the middle of a beginning's end.

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[1] the rice growing seasons of Kerala: 'Virippu' from April-May to Sept-Oct and 'Punja' from Dec-Jan to Mar-April

[2] Marshy paddy lands lying close to the river

Genetically Engineered Rice - Part II: Types of GE Rice

by Karsten Wolff

No genetically engineered rice is approved for commercial cultivation anywhere in Asia, yet. However, there are several types of GE rice in the laboratories and in field trials across the region. They are detailed below:

BB Rice

BB rice is a variety where a gene for bacterial blight resistance (Xa21) obtained from an African wild rice variety is introduced. Bacterial blight is a disease that affects both seedlings and mature plants. The leaves turn into straw colour, roll completely and the tillers wither away. Infected plants lose leaf area and may produce fewer and poorer quality grains. High humidity and excessive nitrogen application favour the spread of BB. However, bacterial blight is not a major agricultural problem in Asia. Furthermore, the bacterial blight pathogen is highly adaptable; it will overcome the resistance based on a single gene and eventually lead to the appearance of more virulent strains.

BB rice is not needed, since a proper management of Nitrogen fertiliser levels combined with alternative pest management, such as the usage of cow urine, will effectively control the disease.

Bt Rice

Bt rice contains genes from a soil bacterium Bacillus thuringiensis (Bt) which enable the plant to produce toxins killing the larvae of rice stem borer pests. Different types of Bt rice are being field-tested across Asia, producing slightly different toxins, such as Cry1Ab and Cry1Ac. Stem borers are caterpillars that live in the rice stems, eventually turning into moths. Stem borers can destroy rice at any stage of the plant from seedling to maturity.

Studies on other Bt crops (such as cotton and maize) are indicating that Bt does not reduce the use of pesticides in the long run, since the increase of secondary pests has been observed. Furthermore, it is known that the Bt toxins can persist in soils retaining their insecticidal activity and contaminating the soil. Stem borer is a low level chronic pest in Asia, causing an average yield loss of just about 2.4 %. Alternative pest management methods which can contain the pest are the use of neem kernel extract as well as the removal of weeds that are egg laying spots for the stem borer.

HT Rice

Herbicide tolerant rice is genetically engineered to resist glyphosate (Roundup Ready from Monsanto) and glufosinate (Liberty Link by Bayer CropScience). Herbicide tolerance is the only trait approved in rice for commercial production in the USA. HT crops are engineered to resist a single herbicide, so this herbicide can be sprayed, destroying all plants other than the genetically engineered crop with the built-in resistance. Herbicide tolerant rice will trigger weed resistance and lead to increased herbicide use, eventually creating more dependency on chemical pesticides. Subsequently, both floral and faunal diversity will decline.

The cultivation of HT rice is only applicable for large-scale monocultures, not for small-scale farming or intercropping. Integrated farming provides a wide range of alternatives for weed control, making HT technology unnecessary.

Golden Rice

Golden Rice produces beta-carotene in the endosperm and aims to address the problem of vitamin A deficiency, which causes blindness especially in children. Golden Rice is vigorously promoted by the industry in order to push for GE rice in general.

However, there are serious questions whether Golden Rice can really provide the amount of beta-carotene needed to achieve the recommended daily allowance of vitamin A for children. Furthermore, pro-vitamin A requires dietary fat for absorption in the human intestine, while children with symptoms of vitamin A deficiency generally also suffer from protein-energy malnutrition, which interferes with the absorption of beta-carotene.

On the other hand, there are plenty of cheaper and healthier sources of vitamin A, such as fruits, green vegetables and unpolished rice, making Golden Rice dispensable.

Pharmaceutical Rice

Japanese researchers have inserted a gene from the human liver into rice to enable it to digest pesticides and industrial chemicals. The gene makes an enzyme which can break down harmful chemicals in the body. The American company 'Applied Phytologics' is producing rice genetically engineered with two human genes producing the proteins lactoferrin and lysozyme, to protect plants against fungal and animal pests. 'Ventria Bioscience' in California is also developing rice containing human genes to produce lactoferrin and

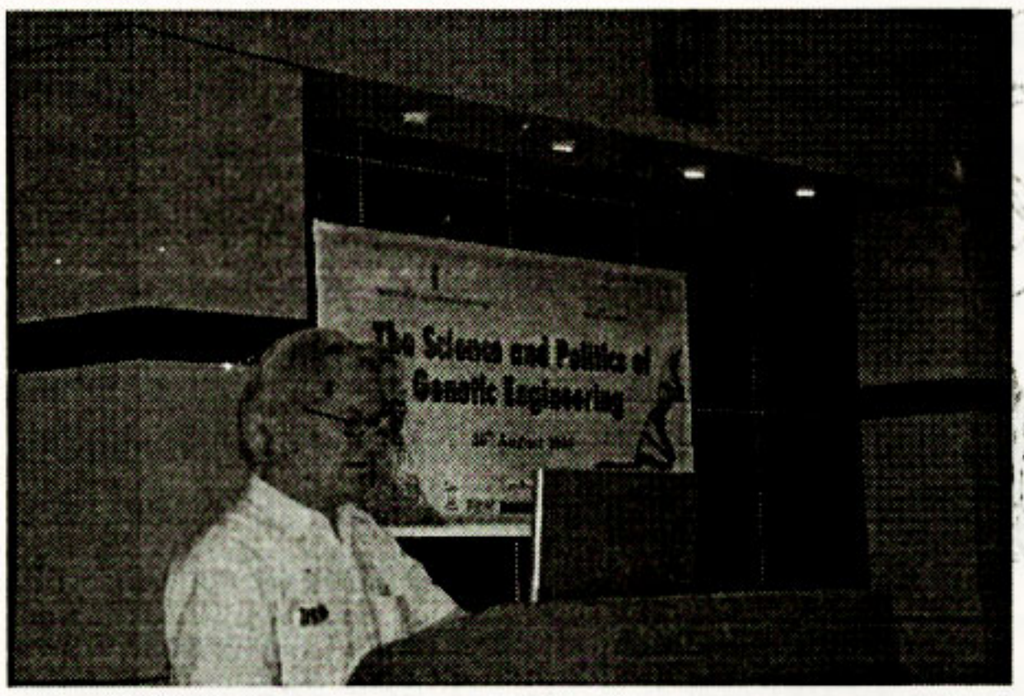
lysozyme. This genetically engineered rice is to be used as a treatment for diarrhoea.

These experiments, along with other researches introducing pig genes into rice, trigger serious ethical and food safety questions. *(To be continued)*

Events

GM CROPS NO SOLUTION TO FOOD CRISIS: LEADING US SCIENTIST IN INDIA

Under the aegis of PANAP, Dr Michael Hansen visited 4 states (Orissa, West Bengal, Tamil Nadu, and Karnataka) in India as part of his pan Asia tour to talk about the "Politics and Science of Genetic Engineering". His talk at various academic institutions and at public venues with audiences varying from students to academics to bureaucrats to activists was well received.



Dr. Hansen in his talk pointed out the imprecise nature of Genetic Engineering. There is no way to ensure the intended effect and the process is highly unpredictable, he said. He cited various scientific studies to point out the adverse effects this technology was having on agriculture as well as health of farmers and consumers world wide. He busted the myth of high yield and low pesticide use being associated with the Genetically Modified (GM) crops by showing statistics that indicated such effects were temporary and GM crops fared much worse than their traditional counterparts in the long run.

He also criticized the proponents of GM crops for trying to project GM crops as the solution to the food crisis that loomed ahead. The solution to the present crisis is not a new and untested technology but exploring other safe and sure methods that exist but are ignored because they cannot be exploited for profit by the industry.

Dr. Hansen contended that the effect of GM foods on the health of consumers has never been seriously studied. Studies on rats and mice have revealed serious health disorders that have never been earnestly followed up. In India the cultivation of Bt Cotton has caused sever allergies for farmers and workers handling it. The crop by-products eaten by cattle and other animals have affected them severely. What would happen when genetically modified food crops are introduced is a question all Indians should seriously ponder upon, he suggested.

Adapted from a report by Debjeet Sarangi & Jagannath Chatterjee, Living Farms, Bhubaneswar.

HERITAGE RICE FOOD FESTIVAL & EXHIBITION AT NAGERCOIL

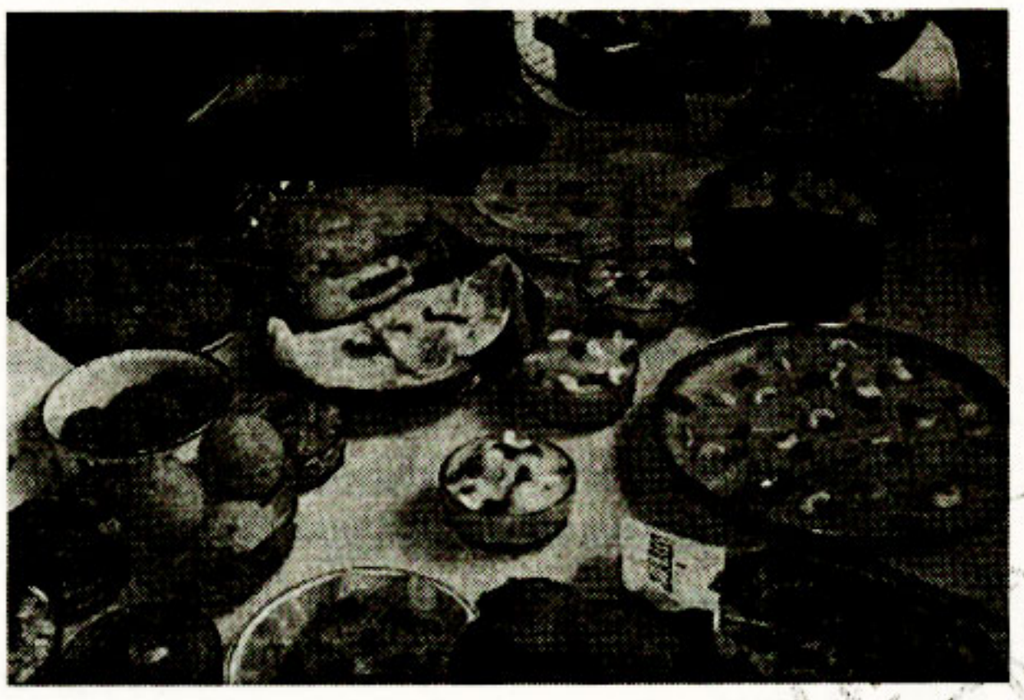
The immense genetic diversity in rice landraces reflects the multiplicity of its nutritional characteristics. Each rice variety has its own cooking character, taste and nutritional value. Some varieties are suitable for making rice (choru) some are for steamed food, some are for making porridges (kanji) and some are for making snacks etc.; and some are even used as medicines (Navarai of Kerala, Kadudai Ownan of Tanjore). Our elders know how to cook rice without loosing its nutritious value and taste and have hundreds of nutritious and healthy rice recipes. Most of these recipes are no longer known to the present generation.

Therefore these recipes need to be popularized; otherwise our traditional rice food items will vanish from our plates just as traditional rice varieties disappeared from our paddy fields. Considering this importance of rice and with a view to popularize traditional rice foods among younger generation who are addicted to junk food, CREATE and THANAL decided to organize Heritage Rice Food Festivals and Exhibitions in various parts of Tamil Nadu and Kerala. As a part of this the first programme "The Heritage Rice Food Festival and Exhibition" was conducted on October15, 2008 at Women's Christian College in Nagercoil. District Collector Mrs. B. Jothi Nirmala inaugurated the programme and Dr. P. Durai Singam, Chairman of Fedcot, presided over the function.

About 127 food varieties were displayed and listed for competition. There were 28 varieties of local rice

preparations (choru), 8 varieties of rice porridge preparations, 39 steam baked food varieties, 6 types of payasams and 48 other varieties. The main condition of the preparation was that rice should be the major ingredient of the recipe. In the exhibition 47 women groups including SHG, 20 individuals and 40 college students participated as contestants. About 1,400 persons both students and public witnessed the exhibitions and tasted the recipes, and prizes were distributed for the best entries.

Mr. R. Ponnambalam
CREATE TRUST



Rice Farmer Breeder's Meeting in Orissa

Organized by Living Farms Orissa, Sahaja Samrudha, Karnataka, OFAI, Goa and Thanal, Kerala from 24th to 27th of November 2008

The three-day Regional Rice Farmer Breeder's Meet, the first of its kind in the country, was held in Bhubaneswar, where delegates from the states of Orissa, Tamil Nadu, Andhra Pradesh, Kerala, West Bengal and Karnataka participated. The event was inaugurated with a gathering of farmers displaying their traditional seeds. The first day started with presentations on topics such as the agro-climatic zones, local cultivars, popular high yielding varieties and farmer released varieties in the respective states. The afternoon session was on the traditions that farmers had been following for ages and that were gradually being lost.

The next day, a field trip to a farm in Narisco village of Khurda district was arranged, where we were to meet the farmer Natbar Sarangi, who had on his farm maintained a massive collection of some 310-odd varieties. During the visit to the field, Mr. Sarangi told more about the selection methods that he had employed on his field and also demonstrated it on his land.

On the last day, three farmers, Mr. Debdulal Bhatacharjee from Vasudha in West Bengal, Mr.M. Lingamadiah and Mr.Sankarguru from Karnataka, who had developed and released varieties, told the delegates about how they had done it. Dr. J.K. Roy, an eminent scientist from CRRI, Cuttack, listed out the scientific practices that were followed in breeding in the research stations. At the end of the sessions all the farmers discussed the varieties that they were conserving on their fields and also the ones that they promised they would conserve in the future.

The workshop was very successful and has sown the seeds for a sustainable network of breeders who would help conserve the traditional knowledge in future.

Wayanad harvest festival held in sultan battery on Dec 13 & 14

Set amidst the verdant paddy fields, most of which were being harvested, the harvest festival and meeting of farmers from the South Indian states was inaugurated by the Agriculture Minister of Kerala in Sultan battery of Wayanad district (Wayanad, which in Malayalam means "land of paddy fields") by harvesting a sheaf of paddy and a moving, almost philosophical inaugural address. Shri. Mullakara Ratnakaran addressed the 300 strong gathering, wherein he addressed the various concerns and demands made by farmer representatives of Wayanad district and then went on to say that farming is the relationship between man and nature where man looks up to nature with humility and respect, and the happiness of a farmer who feeds himself and others is as sublime as the smile of a child!

The charter of demands presented to the agriculture minister included declaring Wayanad as a paddy heritage area, to extend NREGA to farming, to provide a Rs 5,000 bonus (per hectare and season) to the paddy farmer, to use the local rice for the school lunch program, to provide interest free loans and so on.

The two day harvest festival had a beautiful exhibition of paddy varieties brought by the farmers of *Sahaja Samruddha* in Karnataka and *Voice* in Sultan Battery.

Intense sessions ranging from experience sharing by veteran tribal farmers in Wayanad to an informative one on organic agriculture and pest management techniques by Nammalwarji, to the session on genetically modified seeds and food security, to the knowledge sharing session from organic and sustainable farmers from different parts of Kerala and Karnataka kept the participants busy and interested. During the closing session Sugatha Kumari teacher, the noted environmentalist and poet from Kerala, handed over traditional seeds to school children to carry forward the tradition of paddy farming. Informal exchanges among farmers, information sharing between sustainable agriculture activists and school children, the interest and inspiration invoked by the traditional seeds on display and the queuing up by farmers for vegetable seeds from Annadana seed savers network , the poignant play presented by the *Farm School*, Pattambi, the foot tapping folk songs by *Nattuvelicham* Koyilandi made the festival memorable. Also one highlight were school children from an Upper Primary School in Wyanad, who presented their farming experience in SRI system and invited the participants to their harvest festival.

Wayanad paddy farmers consider themselves a neglected lot against the green revolution heroes of Kerala –Palghat and Kuttanad rice farmers. This festival was also intended to focus on the fact that Wayanad paddy farmers through the decades have retained and fostered many indigenous varieties of rice and the district is paddy surplus (which is ignored by policy makers) and it is high time to give them due credit and encouragement so that farming families do not give up on paddy.

General News

Mahyco - Kerala University rice germplasm controversy

The agrochemical company Mahyco sought germplasm from the Kerala Agriculture University (KAU). In a move condemned by media and activists it was found that Mahyco, the Indian partner of Monsanto known for selling Bt cotton in India, requested the agriculture research station of Kerala Agriculture University at Pattambi for access to 57 varieties of paddy developed by KAU and released to farmers for cultivation. In September 2008, the request was approved by the Director of Research and a media house published the news. This elicited an immediate response from the state Agriculture Minister, who withdrew the approval and ordered an enquiry into the whole issue. On one hand, the university officials claim that their action is not improper as the samples being provided are that of rice varieties which are already being cultivated by farmers in the state. Meanwhile, Mahyco claims that it is a normal practice for the company to collect samples for research and development in a public private partnership model. Experts and activists discount both claims; they contend that samples collected from farmers will not be pure strains and thereby not suitable for research. Furthermore, Mahyco and Monsanto are infamous for their monopoly practices and for patenting seeds and selling them to farmers at an exorbitant price. Activists and many within KAU fear that the samples may already have been transferred to the company even though the university vehemently denies the allegation.

Sources: IE, Oct 14, 2008

Golden Rice – A failed technology, but still has backers

Years after golden rice has proven to be a failed experiment of the agri-biotech industry, Rockefeller foundation, one of the original sponsors of the technology, has reiterated that it will continue to support all efforts to patent and mainstream this product. Judith Rodin, President of the Rockefeller foundation, announced during her keynote address at the World Food Prize a grant to International Rice

Research Institute (IRRI) to support their efforts in bio safety testing of golden rice and also to help them go through the regulatory maze to commercialize it in countries such as India, Bangladesh, Indonesia and Philippines.

Golden rice supporters claim that the rice (golden in colour) fortified with pro-vitamin A will alleviate the suffering of malnourished children of the third world and could save 3 million lives and further help nourish another 300 million children. However, scientists and nutrition experts have countered that the golden rice is far from the magic bullet for malnutrition. As per their calculations the rice produces so little beta-carotene that a child would have to eat almost 5.5 kilograms of cooked rice a day to get sufficient Vitamin A, if that is the only source of the nutrient. Even these modest contributions from golden rice are suspect and scientists/ nutritionists suggest that it is more sustainable to have a diverse diet, which can be had by poor families through small viable projects like kitchen gardens and integrated fish farming.

Sources: http://www.rockfound.org/about_us/speeches/101708food_prize.shtml & http://www.foe.org/safefood/rice.html

I AM NO LAB RAT!!!

A CAMPAIGN FLOATED BY THE GM-FREE INDIA COALITION

"I am no lab rat" campaign has been launched to create awareness among urban consumers in India about the impending approval of GM food crops. The focus of the campaign is to startle people into questioning the advent of genetically modified food into India. One of the objectives of the campaign was to get mass based support to reach out to the health Minister Dr. Anbumoni Ramdoss asking him to stop the approval process of genetically modified food crops.

With the startling or curiosity invoking image of a person inside a large life sized cage, the lab rat teams talked to audiences ranging from students to bureaucrats to academics to scientists to curious by standers on the streets about genetically modified foods, their health effects, the economic and ecological effects of GM crops, and also about the various studies conducted around the world which clearly indicate that it is an unstable and unreliable technology which requires much more testing before it can be introduced. The campaign states that "There is overwhelming scientific evidence that the process of Genetic Engineering alters the nature of our food in unpredictable and irreversible ways. Further, during animal studies, including the ones conducted by GM companies themselves, evidence linked GM food with organ and tissue damage, adverse effects on growth and development, decreased immunity and even ill effects on children. Nutritional composition of foods is also known to have changed."

Ranging from small towns in Orissa to the cyber capitals Hyderabad and Pune to the metro of the south, Chennai, the team traversed far and wide carrying the message of a "GM Free India', collecting signatures on the petition, sharing information and spreading the word.

Read and know more about the campaign at *www.iamnolabrat.com*

WHO OWNS RICE?

by Claire Hope Cummings

"I will always remember one woman I saw regularly in Vietnam. She worked at a rice mill as a labourer, the lowest rung of the unskilled labour force, the working poor. In the evenings after the mills shut down, she would show up now and then, and I would watch the way she'd forage for food. She would harvest water hyacinths along the river or pull green papayas from the trees living at the edge of the jungle. One late afternoon I saw her sitting on the ground near huge pile of rice hulls. All I could see was her polyester blouse sticking to her rounded back, wet with perspiration from the heat, and the back of her hat. She would lean forward, pick up a handful of hulls, and then let them fall through her fingers. Every once in a while she would catch a single grain of rice and carefully put it in a bamboo tray at her side. She sat and sifted for hours. Eventually when she had gleaned a cup or two of rice, she left. I never knew her name or how many people depended on her for food, but I will always remember her quiet dignity and monumental patience. To me, she demonstrated an essential truth about how the world gets fed. The work of feeding the world is done by the hands of women."

(This quote is taken from the book 'Uncertain Peril: Genetic Engineering And The Future Of Seeds')

School children revive paddy culture

Kerala, the state which is rich in biodiversity and has a literacy rate of almost 100 %, has become the most food insecure state in recent years. The loss of paddy land and the resultant water scarcity triggered a lot of discussions and struggles at various levels, ultimately forcing the government to form an Act to prevent further land conversion. But even more interesting is what is happening at various schools in Kerala. At least in 200 schools teachers and students along with PTA (Parent Teachers Association) have started agricultural activities. They started with vegetable cultivation, but in the year 2008 they have also started paddy cultivation in 52 schools. Students are so happy to get into the field, do planting and all other work. Some of the schools are even practicing SRI. When we talked to some of the students in these schools, they told us that they learnt a lot practically about soil and seed and farming, and many of them now even want to become farmers! The agriculture minister of Kerala stated that by next year they will start agriculture in every school. In the beginning some parents were a little unhappy that their children are made to touch the soil, but later on their attitude also got changed when they saw the natural happiness in their children. Students have started singing harvest songs.

Book release in India

The Indian edition of Genetic Roulette, the world famous book on the health impacts of GMOs, written by Jeffrey Smith, is being launched in India at various places in the month of January. The year 2009 is very crucial for Indians since a lot of genetically modified food crops are on their way to our field and plate, waiting to get the permission from the Genetic Engineering Approval Committee. This is the right time to launch such a book, since the understanding of the issue on GM crops and food is still very inadequate among the common people and also policy makers in the country. This book can fill this gap, so that people can take an informed decision about their food. The book is published in India by Deccan Development Society, South Against Genetic Engineering (both Hyderabad) and Other India Press, Goa. The launch is hosted by various organisations which are working towards safe and culturally appropriate food and farming.

Readers' Views

Received your news letter from the Save our Rice Champaign. Really it was very useful. When I read the Editorial I have got so many information about the Paddy cultivation, that reduces in Tanjore district. I have already written about this in the leading Tamil news paper Dinamani. In Vilupuram District alone, the paddy cultivation has come down drastically. So all over Tamilnadu the paddy fields are reducing. It is a very great danger. Because if once we allow to build factories or houses then never it will change into cultivation again.

Me and my friends and the members of our association appreciate your effort. We have started one organic shop in Puliangadi and we opened a branch in Tirunelvelly, too. In Tirunelvelly the shop will be open 9 o'clock in the morning and will be closed 2 o'clock in afternoon. We are selling organic things. Once again I welcome your news letter.

Yours

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BOOK POST – PRINTED MATTER

Editors' Note: **please send us poems, stories, rice traditions and other material. If you have a rice related event coming up or if you have an interesting report on rice events already conducted or on policy or new practices. Please do send us the same in word format with pictures, at paddyeditors@gmail.com.**

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