

Organic Farmers and Farms of Karnataka

NARAYAN REDDY

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Narayan Reddy stumbled upon organic farming while he was seriously considering selling his farm in 1978 and investing in a business. He happened to voice his concerns to Allwyn Dekker, a Californian organic farmer who was growing organic vegetables for 200 inmates at a Natural Therapy Centre. Allwyn suggested Narayan try organic methods. The rest is history!

Today Reddy is one of the most influential and well-known practising organic farmers in the country. Despite being extremely non-assuming and gentle, he has inspired many other farmers to change over to sensible organic farming methods. Today he remains one of the wise old men of the country's organic farming movement. He speaks with calm authority. People listen. They also find him very practical.

The farming system of the Reddys is based on a theoretical framework which is also grounded in economics and philosophy. When the Reddys are experimenting with methods, looking for ways to improve yields and so forth, they do so within the bounds of how they believe the ecosystem of their farm works. Narayan, for instance, would not try using even a small quantity of inorganic fertilizer to see if he could get an increase in yields that would be high enough to give a net increase in profit because he believes that inorganic fertilizers are not good for the total nutrition of the soil and plant.

According to him, total nutrition is most important for a plant. There is a gloss to the leaves that only truly healthy plants possess. Plants fed with inorganic fertilizers can be dark green and otherwise appear healthy, but they will not have this gloss of health. Adding inorganic fertilizers would cause imbalances which might temporarily improve yields, but would decrease populations of beneficial bacteria and earthworms and make the plant more susceptible to pest and disease attack. Reddy is against spraying micronutrients on foliage or 'foliar feeding', for the same reasons. He feels it is likely to create imbalances within the plant because the leaves will absorb everything indiscriminately, whereas the plant is able to selectively absorb nutrients through the root hairs.

The Reddys' commitment to their style of farming is integrated with their philosophical beliefs as well. Reddy believes that for a farm the soil, plants, animals, and humans are like four legs of a table. All are intrinsically important. He feels that when the farmer uses agrochemicals, there is less of a connection between the farmer and the soil – the farmer is always aggressive, like an enemy to the land. The common practice of breaking clumps of soil to make the soil soft and ready to plant is another example of this. Reddy objects to the breaking of clumps not just because it is unnecessary work, but also because he does not like the relationship he sees is intrinsic to it. He prefers to maintain his soil such that it is soft and does not require this harsh treatment.

Reddy says that organic farming takes him closer to religion, that it makes him feel less selfish because he is always looking at the interdependence of things. These considerations go beyond the economics and provide a strong motivation for the Reddys to continue farming in the same manner in the future.

Farming practices: The Reddy farm is comprised of four acres of coconut trees, 200 fruit yielding and 100 non-yielding (five years old). On these 4 acres there is intercropping as follows: on two acres, coffee and curry leaves; on one acre fodder, one acre floriculture.

On another two acres they have 30 chickoo trees with 15 coconut trees on the borders and intercropping of beans and grains. There are two acres of guava and mango trees, two acres of teak (600 trees, 18 months old, intercropped with banana and mulberry), one acre of paddy and one acre of ragi and 52 young coconut trees.

The Reddys have also obtained three acres of land on lease of which two acres (teak and banana) are irrigated and one acre is dry where ragi and beans are grown.

They have more than a dozen varieties of trees including 80 mango trees. They are against eucalyptus as, according to them, it affects natural pollination as experienced by them with regard to coconut and betelnut trees.

They have two gobar gas plants of four cubic feet each and several animals. They have no oxen. All the animal food is obtained from the farm itself. They do not plough the land except for paddy. Annually they make 50 tonnes of compost from 10 tonnes of dung and 40 tonnes of bio-mass. They do not do any vermiculture as Reddy believes that organic farming produces conditions suitable for natural growth of earthworms and there is no need to introduce exotic strains.

For pest control, the Reddys use a mixture of one kilo neem and one kilo round mogra flowers (chandu mallige in Kannada) with one litre cow's urine and 10 litres of water to spray on one acre of land.

For small areas, in order to keep mealy bugs, aphids and scales in check, they dust wood ash on the plant's foliage at a rate of about 100 grams per cubic meter of leaf area. Sometimes they mix about 10 millilitres of kerosene with the wood ash to make it more effective. They find that dusting in the early morning is most effective because the ash clings to the dew on the leaves.

Weeding is done by hand with a tool called a dokari. This tool makes it possible to sever the plant's root below the

surface of the soil. Each person cutting then separates out the grasses and other plants that are good for cattle fodder. These are carried to the cattle and the rest is composted. When weeding around small trees or banana plants, the weeds are used as mulch at the base of the plant. When weeding is not necessary, but the competition of weeds with a crop needs to be reduced, the Reddys cut the weeds at their stems and either leave them as mulch in the field or carry them to the cows. The whole 12 acre farm is irrigated with the drip system.

Obstacles to alternative agriculture: It was easy for Reddy to identify many of the obstacles he faced during his transition to alternative agriculture and to identify the obstacles he is currently facing by staying with it. He also has some idea of what obstacles other farmers are facing in and around Sorahunase village.

First on Reddy's list was the propaganda from the media, government extension workers, and politicians pushing chemical inputs. At least three times a day, Reddy says the radio airs advertisements for pesticides and fertilizers disguised with popular music. In the nearby village of Varthur there are numerous bill-boards and entire sides of building painted with images of prosperous farmers holding bags of chemical fertilizer.

Reddy estimates that, because of previous soil depletion, yields on a farm will go down for at least two years during the transition from chemical to organic. Farmers may need to purchase organic fertilizer. Without subsidies or loans, it is impossible for many farmers to even consider organic farming.

Reddy cannot discuss obstacles without discussing possible ways to alleviate them. Foremost, he felt that more research and documentation of organic farming methods would be of great assistance both to farmers and policy makers alike. He stressed that these studies should be widely published and distributed through the media in the most accessible way possible. Since the national government is responsible for protecting people's health and safety, Reddy feels that they should use the media to educate the public on the dangers associated with using pesticides.

Reddy also suggested subsidizing the cost of toilet construction which would enable the collection of human feces, the purchasing of biological pest control kits, the planting of certain herbs and trees for use as anti-feedants, and the purchasing and feeding of livestock whose manure could be used as fertilizer.

Promoting SRI paddy cultivation

Reddy has the qualities of a keen experimenter and the self assurance of an adventurer. When he heard of SRI, he took to it like a fish to water. He has taken SRI practice to unprecedented heights and been partly responsible for its spread across the country and to neighbouring nations. He believes SRI to be the greatest invention he has witnessed during his life time.

It was a coincidence of sorts that lead him to SRI. He happened to read an article on SRI by CIIFAD in a magazine at a conference in France that captured his imagination. While replicating on his own farm, his wife suggested direct seeding instead of troublesome transplanting. This led to the invention of the direct planting technique. Annapoorna farm continues systematic experimenting.

He was excited by the results and enthused fellow farmers and NGOs in his extensive, informal network of the organic farming community to explore this new technique. In a way, this was launched while sharing his experience at a function at Timbaktu Collective, who followed it up by organising a visit of farmers including women involved in transplanting to Narayan Reddy's farm, thus providing instant impetus to the spreading of SRI technique.

Instead of planting a single seed, two were planted together and if one did not germinate, a fresh seed took its place. Also the distance was maintained at 12"x12". The direct benefit in this case was that seed requirement dropped to 1/15 and water requirement to one-third. Production doubled and percentage of unfilled grain was negligible. The rat menace came to a virtual halt because of spacing. There were also instances when rice was grown with sprinkler irrigation. Many of his farmer friends reported yields over two and half times what they got through conventional methods. He reported 94 tillers per plant while a friend recorded 135, and grains in a panicle counted 200 to 312.

What is surprising to him however is that, though SRI came to Cambodia, Sri Lanka, Thailand, Pakistan in the early 1990s, India did not explore its potential till 2001.

On organic farming, his view is that, given the reality of the small and marginal farmers of India, it may be practical to switch to organic in a phased manner over a period of 5 to 6 years, without the assistance of any subsidies or incentives. This he feels is important, as one must move away from the subsidy syndrome. The indicator of a good farm is its soil, a farm should he recommends, have 5% humus and 35% stone/pebble content to be healthy and have good water retention capacity. He recommends keeping farm animals and the cultivation of azolla as good practices for organic farming and says, 'Agriculture is not an uneconomic profession but the only thing is we have to work sincerely for at least 4 hours a day and five days a week. Then we can lead a happy life – I don't say a luxurious life like any trader, or a businessmen or a bureaucrat – but a happy and honourable life.'

(Source: Dileep Kamat/update by Claude Alvares)

VATSALYADHAM ASHRAM

Mudhol - 587 313, Bagalkot District, Karnataka.

Vatsalyadham means the Abode (Dham) of Parental Love (Vatsalya). Ashram means a place where pure and ennobling happiness (Anand) is achieved through work (shram). Vatsalyadham Ashram was started on 16th March

1983 in an open, partly barren, partially cultivated, piece of land of over two acres. The general guiding principle of the residents of the ashram is to grow all that the ashramites wish to eat and to eat what is produced in the ashram. The ashram was founded by Swami Sevanandaji, now 92, to experience God in all things, in everybody at all times. There are presently thirteen residents at the ashram, including six people, four cows, two dogs and a cat.

The ashram has two acres and nineteen gunthas of land. Since 1991 no chemical fertilizers have been used. Wheat, maize, paddy, soya-beans, jowari, ragi and groundnut are the main crops grown, supplemented by pulses, green gram, black gram, cowpea and beans. Vegetables such as brinjal, lady-finger, radish, knol-khol, etc. are grown. Besides these, mustard, turmeric, onion, garlic and fenugreek are also cultivated. Fruits such as mango, papaya, guava, pomegranate, fig, jambul, ramphal, sitaphal, gooseberry and banana are also grown.

Glyricidia trees grown on the boundaries serve as a natural interwoven fence for the farm. The leaves from the regular cropping of these trees also provide green fodder and manure for the farm. Besides this, vermi-manure and compost and slurry from a gobar gas plant make the farm self sufficient in agricultural nutrient requirements.

Ramesh, one of the housemates of the ashram, states that maize requires plenty of fertiliser replenishment as it is a plant that draws huge resources from the soil. So when the ashram decided to go organic in 1991 they began to use a combination of cow and chicken manure and neem cakes as fertilizers besides the glyricidia. After sometime, in 1995, chicken manure was done away with and vermi-compost was purchased and introduced during an intermediate period before the farm became self sufficient.

More than a decade ago, chemical pesticides such as Malathion, BHC, Endosulphan and Sulphur had been used on the farm. For over 10 years now, the ashram has used natural pesticides to handle all pest problems. Juices from neem, dhattuvi, kanagal and jandu leaves and garlic are mixed with cow's urine and the derived dilutions from these are sprayed, to protect plants from various pests.

The ashram remains true to its original intent which is to live a self sustained life, in tune with nature and the Creator, rather than for any commercial motive.

(Source: Communication with OIP)

BASAVRAJ SIDDAPPA KAPSI

(Secretary, Organic Food Club), Post Yamakanmardi, Taluka Hukkeri, District Belgaum-591245, Karnataka. Cell: 09449734320

Kapsi, 60, is an agricultural graduate. Since his childhood he was interested in botany and allied subjects. When his father passed away he started managing the family farm (1980 onwards). He put in 22 years of government service before taking voluntary retirement in 1994, while occupying the post of assistant agricultural officer.

Kapsi owns 23 acres of land in all, of which 11 acres are dry land and 12 acres irrigable land. His farm is located on the Poona-Bangalore highway, six kilometers away from his village, Yamakanmardi.

After years of using chemicals in farming, he began organic farming from 1992. Starting with only 2.5 acres initially, the entire 12 acres has now been brought under organic farming.

He maintains four animals which provide sufficient dung for compost making. Kapsi owns a mini power tiller. He finds weeds to be a serious problem on the farm but has over time used them to his advantage as mulch. Mulching has helped combat weeds, maintain soil moisture and increased the population of earthworms and other microorganisms vital for maintaining soil fertility.

Presently Kapsi's farming pattern on the 12 acres of irrigated land is as follows: sugarcane - 2.5 acres, banana -1.5 acres, figs - 1.1 acres, rose - 1 acre, mixed plantation of mango and drumstick - 1 acre, paddy (local aromatic basmathi variety)- 1 acre and the remaining is devoted to an assortment of seasonal vegetables. Three acres of land at a time are always left fallow for change over of crops. Drip irrigation and micro sprinklers meet the water needs on his farm.

Compost and vermi-compost are produced on the farm itself. Cow dung and cow urine slurries have helped in boosting the production of vegetables. The plants have over the years developed resistance to pests, and natural predators take care of the odd attack. He believes that consistent organic farming methods have brought in a natural farming element into his land, the land now takes care of itself with hardly any external inputs. He has developed various combinations of plant extracts that are used at different times, keeping seasonal conditions in mind.

He has no dearth of customers for his produce: flowers and fruits are supplied to the local market in Belgaum, the surplus marketed through Javik Krishi Society, Bangalore. And, sugarcane products find a ready export market.

Since November 2002, he has, along with his like minded organic farming colleagues, been running an 'Organic Food Club' which initially began by supplying farm-fresh poison free vegetable hampers to about 560 families in near by Belgaum city. However, since 2006 the club has moved to selling the produce at definite locations through a mobile store.

(Source: Communication and Tele-interview with OIP)

ASHOK K. PAVASHE

Tanaji Galli, Post Benkanhalli, Taluka and District Belgaum – 591 108, Karnataka. Ph: 0831-2447662 Cell: 09880494770

Pavashe has been practising organic farming since 1992. Now around 60 years, Pavashe was once an advocate. In 1984, he gave up his legal practice because of the unethical methods employed in the profession. Keenly interested in farming right from childhood he began to farm on 11 acres of land he had inherited from his father.

Despite the digging of three wells and installation of pump-sets the soil remained poor and water was scarce. So he decided to go in for horticulture. He planted 500 chikoo trees, 325 desi varieties of cashew plants and 425 improved variety – Vengurla No.2 and No.4 in 1991. In between, he planted 340 coconut trees – one coconut tree inbetween four chikoo trees.

On his own, Pavashe grafted 300 chikoo plants to old mother plants and then transplanted them in 1996. He also planted 8000 mulberry plants and started sericulture in a newly constructed rearing house in 2003.

All this changed with fall in cashew and coconut yield essentially due to root competition for space and nutrients. Taking a practical approach, he removed all the cocoonut and cashew trees and most of the mango and planted in their place self grafted chickoo. Presently his farm can be described as a chickoo orchard interspersed with ginger .

With increase in sericulture in Andra Pradesh, and fall in rates back home, he is shifting from sericulture to cultivation of oyster mushrooms in the sericulture sheds.

Though he had used NPK chemical mixtures sparingly for several years he had also relied on dung manure, fish meal, bone meal and sterra meal. In 1992, however, he introduced drip irrigation and stopped chemicals completely.

Experimentation is on in a big way with nutrient value testing of vermicompost . Pavashe is able to obtain about 4,500 kg of vermicompost for every two month batch from a 1000 sq ft. composting area. The results he feels are very satisfactory, and is encouraged to take his composting towards greater productivity aiming at 5-6 batches of compost per year.

Why did Pavashe switch over to organic farming? As an interested and voracious reader of books and magazines on agriculture he came across plenty of material which convinced him that chemical agriculture is not sustainable. The high costs of chemical fertilizers and pesticides and the need to constantly increase their dosage also made him decide to abandon chemical farming. Organic methods he realized would restore soil fertility, maintain its health and result in healthy plant growth.

Within just three years of changing to organic, Pavashe saw three remarkable changes on his farm:

1. The number of earthworms increased steadily in the soil, a clear indication that soil fertility was improving.
2. Expenses were much less than when he was farming with chemical fertilizers and pesticides.
3. The taste of the chikoos improved considerably. People kept telling him that they hadn't eaten such tasty fruit before!

Pavashe's farm has eight cows, two female buffaloes and about 30 odd poultry. He has a gobar gas plant (Deenbandhu variety), the slurry of which he mixes with green leaves for his vermiculture. He has not mechanized his farm at all but has acquired one power tiller for superficial tilling and mulching. His net income ranges from Rs.1, 75,000 to Rs.2, 00,000 each year. He sells the entire orchard to local wholesalers; however with the present awareness and demand for organic products, negotiations are on to supply directly to organic outlets in Pune and other big towns.

Says Pavashe, 'For the past three years the chikoos from my farm are winning the first prize at the district level exhibition organised by the Horticulture Department of Belgaum. The taste and size of the agriculture produce is the best only because of organic farming.' (Source: Telecommunication with OIP)

PURUSHOTHAMA RAO KRISHI SAMSHODHANA PRATHISTANA

Krishinivasa, Kuruvalli, Thirthahalli – 577 432, Shimoga District, Karnataka. Ph: 08181 228340

(Contact person: Smt. Shantha Purushothama Rao, President)

Sri Purushottam Rao passed away on September 18, 1998, age 65. He will be remembered as one of the pioneers of organic farming in the country. He dedicated his property to the Purushothama Rao Krishi Samshodhana Prathistana, a public trust whose main objective is to conduct research, education and extension in the field of Swadeshi Swavalambi Savayava Krishi (Indigenous, Self-Reliant Organic Agriculture).

Rao was the founder of the Krishi Prayog Parivar, Karnataka and member of the Krishi Koota and Bharatiya Kisan Sangha, India . He had 250 farmers as followers of the sustainable agricultural methods that he propagated. He was very popular in Tirthanahalli, Shringeri, Koppa and Sagar talukas for his sustainable farming innovations. Day by day, the number of followers grew. He was awarded the 'Krishi Rishi' title by a local people's organisation.

Purushottam Rao's farm is adjacent to Koppa Road and River Tunga. His house is surrounded by agricultural land. His family owned 10 acres on which he grew various crops with organic farming methods.

Why did Rao change over to sustainable agriculture?

He was one of the first farmers in the region to adopt sustainable agricultural methods. His reasons for going organic were: knowledge of hazards of chemical use and need for producing healthy food from the farm

How did he change over?

According to his narration: 'We understood (my wife, Shylashree, and I) that we were using chemical fertilizers and chemical pesticides in low quantity, so that we were easily able to drop them within a short period.' Though, of course, for one year he faced the problem of low productivity, he used the method of 'reduce the negative, increase the positive' i.e., he went on reducing chemical fertilizer, chemical pesticides and went on increasing organic methods. He followed this method of operation from 1987 to 1989 and completely stopped chemical fertilizers in 1989.

Rao was a major innovator. A few of his very effective pesticide recipes are:

Preparation of pesticide from nettle: To produce nettle pesticide, fill up 10 litres of water in a barrel in which 32 locally available nettle plants are dipped. The barrel is closed and left for fermentation. To produce nettle pesticide compound, mix one litre decayed nettle water with 10 litres clean water. Now it is ready for use. This is good to control dryback and roof-root diseases, which attack coffee. This is applied once only.

Preparation of Survarnagodde leaf water: Take one kilo leaves, dip them in boiling water for about 24 hours, mix the boiled water with pure water in 1: 10 ratio. The pesticide is ready for use. It can be used for paddy, coffee and vanilla, to protect it from fungus. Rao used cow urine as pesticide for paddy, spraying it thrice in the life of a crop. Also, he used 'agnihotra'—a traditional method of pest control.

Rao did not use any special method to manage weeds and in fact used some of these as green fodder for his cattle. The rest was used as green manure for mulching to conserve soil moisture. In his paddy field he did not touch weeds before harvesting. They were mulched in the soil while ploughing. This practice not only reduced labour, but also protected the soil with moisture and fertility. He applies organic manure and other liquid manures which improve soil nutrition and result in the growth of earthworms and micro-organisms. One can see thousands of earthworms moving in the top soil in his field.

1. Cropping pattern

Area	Crops
0.75 Acres	Areca nut, cocoa, vanilla
2.5 Acres	Coconut, coffee, vanilla, banana
6.5 Acres	Vanilla (mulberry as shade/support plant)
5 acres	Paddy (2 crops)
1.25 acres	House, organic manure pits, cattle shed, farm yard manure heaps, etc.,

2. Farming practices

Krishinivasa production of compost: Compost heap of width 4 feet, height 4 feet and of convenient length is made. Crop residues, farm wastes, cow dung/gobar slurry, forest/top soil, poultry manure, press mud/sugar cane factory waste are used in different layers of thickness 1 inch to 3 inches. The heap is made under shade and kept for 3 months under suitable moisture and aeration. To this heap buttermilk/coconut water/ honey/ stinging nettle are added while applying to the field or during heap making to enhance microbial population.

Now the farm very rarely sprays any bio-pesticides. Only Bordeaux mixture is sprayed against Mahali of areca. However, in critical conditions bio-pesticides from local plants mainly stinging nettle, amorphophallus, bougainvillea, agave, neem, coriander, mukkadaka, etc., are prepared and sprayed. Amniotic fluid is also used in the farm either as a foliar spray or to energise soil.

The farm has been certified organic by SKAL, Netherlands.

(Source: Arunakumara V. K., Trustee of the Prathistana)

K.T. NAGARAJ

Kullunde Village, Post Halaga, Taluka Thirthahalli, Shimoga District – 577 220, Karnataka. Ph: 08181-245533

K.T. Nagaraj's land is located at Kullunge village, close to the Mandagadde Bird Sanctuary. Together with three partners he holds 62 acres of land on which he grows various crops with organic farming methods. Land allocation for different crops is as follows:

On 12 acres: areca nut, banana (4 acres); pepper (4 acres); 8 acres are tank irrigated. On 10 acres: paddy (1 crop). On 25 acres: coffee and pepper. On 15 acres: multiple horticulture with coconut, cashew, mango, and teak; also used as grazing land.

He used chemical fertilizers for 10 to 15 years, using them in large quantities from 1982 to 1988. He started reducing the application in 1988 and completely stopped using them in 1992. He adopted the Kuruvalli Krishi Nivas production type 1 method (the model developed by Purushottam Rao, described earlier).

For pests, weeds and soil management he uses bio-control and organic methods which he learnt from Krishi Nivas Kuruvalli. For coffee, he uses Bordeaux. For weed management he removes weeds from the paddy field once a year.

A water tank has been constructed near his house which accumulates rain water and from this tank he provides water to the areca nut trees with a pump. For paddy, a natural water flow from the top of the hill channelled through the paddy field is used

He has not adopted any high-tech machines. He uses a power tiller for ploughing and a pump for lifting water. He has two gobar gas plants which generate gas for cooking and other purposes. His house has electricity.

He has enough cattle (13) to feed his family with milk and allied products. They also meet his agricultural demands for cow dung and urine for manuring. The cattle shed is constructed in such a way that urine mixed with cow dung and water after cattle wash automatically get into the gobar gas plant and the gobar gas slurry is siphoned into the arecanut plot.

(Source: Communication with OIP)

DIWAKAR HARIDAS

Post Khadaklat, Taluka Chikodi, District Belgaum – 591 228, Karnataka.

(Contact: Narayan Haridas -08338-266518)

Diwakar at 84, is still an active organic farmer. The son of a freedom fighter, he too participated in the freedom struggle. When India attained independence, he completed his education (post graduation in education) and became a teacher. After working in a rural school for 15 years, he resigned from his job to join the Bhoodan (Land-gift) movement started by Vinoba Bhave. Not only did he donate five acres of land to Bhoodan, he also went on a six year padayatra for the movement under Vinoba's leadership.

As the movement lost its earlier vigour and momentum, he settled down in his native village of Khadaklat to practice agriculture and do grassroots level rural development work. During 1961-65, along with a few of his friends, he started a farmers' co-operative society. From 1966 onwards he has remained a practicing agriculturist. In the year 1984 he came across Fukuoka's book, One Straw Revolution, which inspired him to change over to organic farming.

Diwakar has a total of nine acres land, of which six acres are dry. He was able to irrigate three acres with an open well and a pump-set for some years but extreme drought like conditions for the past few years has made things extremely difficult. His focus now is on the conservation of water and techniques which make do with the minimum moisture for optimum results, presently irrigation is through micro sprinklers. He has a biogas plant and a female buffalo on the farm which partly meets its dung needs.

On the dry land he earlier grew jowar, groundnut, soya bean, tobacco and pulses. However for the past few years things have been difficult.

On the three acres which are partially irrigated, there is an unbelievable diversity of species.

Around the farmhouse one has to search for small pieces of cultivation as you see trees all around. There are over 50 varieties of trees, to name a few: teak, sandal, coconut, citrus, orange, lemon, jamun, tamarind, papaya, custard apple, ramphal, banana and a host of flowering trees and plants.

As a fence and on bunds he has grown glyricidia. These leaves along with the grass growing in the farm forest and other abundant biomass form the base of his compost and mulching process. Part of it is mixed with the biogas plant slurry to feed the earthworms. This varied organic manure facilitates healthy plant growth.

The Chikodi-Nipani area is famous for its rich tobacco and betel leaves. The soil and the climate are just right for these cash crops. For around five years, however, this farmer had stopped growing tobacco on principle, because smoking is an unhealthy practice, but because of the difficulty in cultivating other crops he has had to revert to some tobacco cultivation.

For protection from pests, Diwakar has used a combination of farm animal urine, the juice of neem, green chilies and garlic. At first, people were sceptical about his experiments but now agree good tobacco can be grown without chemical fertilisers. The maya pest has been controlled by these methods. However, monkeys and peacocks who visit in hoards keep him in a state of unrest.

Inspired by a magazine called Aarogya (health) published by Aarogya Mandir, Gorakhpur, he started a mini-nature cure centre on his farm. In the initial years, the extremely low fees attracted many patients who were satisfied with the simple set-up and effective treatment. It even had staying facility for extended treatments using sauna baths and mudpacks. His most remarkable achievement was curing his wife of a paralytic attack. She survived six years after the attack and remained active without the use of a walking stick until the last. These days he still extends his medical services to all who seek it. He believes they come to him when all other treatments fail.

Over the past few years his philosophy of growing food has evolved into a sadhana. He is experimenting with being self-sufficient in food. On a part of his farm he now grows vegetables, spices, fruits, cereals and pulses. In short everything that he thinks he would possibly need for his nutritional requirements. He says 'I am not farming anymore and I believe one cannot farm. All one can do is create a conducive environment for plants and trees to grow and mother-nature does the rest.'

This octogenarian still practices yoga each morning and is actively involved in physical work for eight hours of the day. Having lost his wife a year ago and being subsequently cornered by his family to 'retire' he declines saying, 'I'm not alone, I sleep well in the lap of mother-nature and have all the trees and plants as companions.'

He believes that organic farming is not a method of cultivation, but a way of life.

(Source: Communication and Tele-interview with OIP)

M.T. SHANTIMOOLE

Savayava Farm, Post Pailar, Taluka Sullia - 574 248, Dakshina Kannada. Ph: 0825 – 284601/320563

Shantimoole has about 45 years of experience in farming. About two decades ago an incident made him change the way he farmed. At that time, for three consecutive years he had been farming using chemical fertilizers. One day he saw an army of ants carrying away dead earthworms. Just a few days earlier he had applied chemical fertilizer to his coconut trees and that made him question the sense of what he had done. That very day he said goodbye to chemical fertilizers and tried to adopt a new method of farming.

In search of a suitable guide he came upon a book on the experiences of the Japanese, Masanobu Fukuoka. After that he left the land as it was for two years. Later he adopted the NADEP compost-making system and covered the entire farm with compost and also applied neem fertiliser.

Nowadays he does not need compost in such great amounts. The entire farm is full of earthworms and other microorganisms. He only prepares some compost for growing vegetables. To demonstrate to school children, he also practices vermiculture. He bid goodbye to farm labourers as there was not much work for them. What he gets from the land to take home is free.

The crops that he grows now range from coconuts, areca nut, cocoa, coffee, bananas, black pepper, fruits, flowers and also plants of medicinal value. Irrigation is his only major job but even that is not very much. What he gets from his three acres today is much more than what he used to get earlier.

How did this happen?

The millions of microorganisms and earth burrowing worms in one metre of soil do all the work necessary to fulfill the needs of all kinds of plants. Whatever 'leftovers and rubbish' are found on his land, he leaves them there, thus assisting micro-organisms in the preparation of fertilizer. If farmers do more work than is necessary, he feels they are wasting their time.

When the earth is covered, it is protected from the heavy rains of the monsoons and the scorching heat of the summer. A variety of grasses and creepers grows on his land. In the monsoons he cuts all the 'unwanted' plants and leaves them where they are. All kinds of refuse is used to cover the land. Sowing different kinds of useful varieties of legumes in the empty spaces makes it a big expanse of greenery and increases the wealth of the land, i.e. its fertility.

The neighbouring farmers say that their land is so clean that one can spread out a blanket and sleep on it. But Shantimoole says that you don't even need a blanket to sleep on his land. By planting different kinds of plants, trees and creepers, all over the land he has tried to protect the core farming area from sun and wind. A few seeds of *Mimosa inoivca* that a friend of his had sent him have multiplied and covered his land, protecting it. Now, whoever wants can take as many seeds from him every year in the month of December.

'Humans in their desire to become rich fast, have used chemical fertilisers and pesticides and killed the natural workers in the soil. If we let our land be, just as in the forests, then all kinds of fruits, flowers and grains will take root by themselves and fill both our stomachs and our pockets,' is how Shantimoole sums up his philosophy.

Shantimoole shares his success in tapping and utilizing the potential of a wild plant to enhance the properties of a planted crop.

From early times a small chili has grown wild in India, an extremely spicy species that birds are very fond of eating. This chilly has been used in the preparation of ayurvedic medicines, for the use of humans as well as animals. Nowadays this chilly is being used in other countries also. The chili plants that farmers grow in their fields stop fruiting within a period of six months only but this wild species continues to bear a harvest of chillies even after four years. That is why Shantimoole decided to try and combine the characteristics of the wild species with the larger chili variety that was generally grown. He took the pollen from the flower of a larger chili variety and pollinated the flower of the smaller variety. The seeds that were gathered from the chili of this mixed plant, when planted, resulted in a slightly larger variety of chili on fruiting. This process was repeated through a few cycles. He says he now has a chilly variety that is as large as that generally being planted by other farmers and one that continues to fruit for four consecutive years.

(Source: Communication with OIP).

SURESH DESAI

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and

Global Green Agricultural Society, Swastik Plaza, Behind Pearl Hotel, Tarabai Park, Kolhapur, Maharashtra

Suresh Desai has achieved a production miracle in organic sugarcane farming through an innovative mulching system devised entirely on his own. His approach is that whatever elements are essential to sugarcane (or any other crop) should be supplied through the medium of a multi-mix of vegetation that has decomposed. This is achieved he says by microbial saturation, catalyzed by mulching, in the treated soil. This resulting biomass product of mulching is known as 'Aurogreen' in honour of the activities of the Maharishi Aurobindo Ashram.

'Aurogreen' is a mixture of nitrogen fixing legumes such as green-gram, horse-gram, black-gram and beans, oil seeds such as sesame and karla (black sesame), chili and aromatic seeds such as dhania (coriander) and other such locally available greens.

There is a certain proportion in the quantities of various seeds which are to be grown using the Aurogreen mulching method. For a land of around 40 gunte (1 acre), five kg horse-gram, 1 kg dhania, 200 grams rajgira, 200 grams black sesame, 200 grams white sesame, 500 grams methi, 1 kg black gram, 500 grams chili, 1 kg green gram, 500 grams beans are to be mixed and sown in the spaces between each rows of the main crop. When these germinate and some growth has been achieved, this supportive vegetation is cut down and mulched below the canopy of the plant of the main crop.

Non-leguminous mulching biomass in which the C:N ratio is over 120 should be avoided, because it does not provide essential elements in the proportion needed. In Aurogreen mulching the C:N ratio is maintained between 20–30, which is most suitable for developing sufficient quantities of microorganism species, leading thereby to rich biodiversity in the soil.

Of the mixture of supportive vegetation, coriander and horse-gram are primarily used for their medicinal properties. On the surface layer of each leaf are acids, namely oxalic and malic acids. These two acids are the basic bond of a variety of amino-chains, which have important medicinal characteristics. In comparison to other green, leafy vegetables, coriander leaves and stems have several more micro and trace elements in organic and degradable forms for the bacteria and fungi in the soil to feed on.

The spacing between two sugarcane rows as well as each sugarcane plant in a row is kept at nine feet. Each of these give around 10 sprouts which works out to around 40,000 plants per acre of land. The population thereby reaches the same quantities as that planted by farmers using chemicals. Significantly, the direction of planting is kept in a North-South direction ensuring that all the leaves of the sugarcane as well as the Aurogreen vegetation on the land get the maximum amount of sunlight. The heat generated by this is good for the mulching process. Because the leaves are exposed to direct as well as indirect, percolated sunlight, the process of photosynthesis is enhanced, leading to greater production of food/sugar content in the plants.

The tonnage of sugarcane achieved by Suresh Desai is substantially higher than that produced on chemical farms. Besides this, his methods have ensured a big saving in water usage for a crop which has always been known to be a water guzzler. Nine to 10 irrigations for the entire duration of the crop are now sufficient because the soil has increased its capacity for retention of water. The soil becomes rich in organic matter and in, as he calls it, a bio-film – a rich, loamy layer of soil that is densely populated, not only by earth fauna, such as earthworms, but one that is taken over by entire colonies of beneficial fungi, aiding and enhancing the process of decomposition.

Though having done only secondary school, this farmer aged 57 is a voracious reader and an enthusiastic experimenter. Inexpensive farming has interested him from the beginning. In 1972 he began thinking that green bio-mass could be given directly to plants instead of composting! In 1973 he stopped burning the 'waste' on all of the 12 acres on which he grows sugarcane. He made use of the green bio-mass to cover the land rather than putting it into the ground. He also thought that drip irrigation was an expensive proposition and so devised an 'appropriate technology' using the same principle, viz. not allowing the water to sink too deep into the land but instead seeing that it flowed parallel to the land and fed the plants. He says that just as chemicals put into the land kill microorganisms and ruin the fertility of the soil, excess water too proves fatal to these microorganisms.

The most remarkable feat of Desai is that, besides being a successful practitioner of his principles, he communicates the science and art of his techniques in a simple lucid manner to one and all. His recent initiative in this direction is the development of an organic farming training package that is being offered to farmers around Kholapur in Maharashtra. Spread across Kholapur district are many demonstration plots growing various local crops exhibiting his innovative farming methods.

Mr. Desai is working in collaboration with Mahila Arthik Vikas Sangathana in five districts of Maharashtra promoting kitchen garden farming amongst rural women. Through this endeavor women are able to generate Rs. 30,000 to Rs.40,000 annually from their kitchen garden produce in small 15 to 20 gunta plots. There is also a proposal of developing a buy-back system for farmers that is under finalisation.

His recent innovation is in light and air harvesting technology. According to Mr. Desai there are four vital factors that affect crop yield: light, air, soil fertility and water. Farming has stressed so far on soil fertility and water, which though important play only part of the role in obtaining good yields. As a consequence, farmers have over used fertilisers and water. He believes that this over use is firstly not required and secondly causes growth of weeds, kills soil microorganisms leading to disease in crops. His emphasis now has been to introduce strip farming and low inputs of water. Apart from this he is conducting experiments in making optimum use of light and air which are freely available and can be put to optimum use if one follows a relevant sowing pattern depending on the crop. He is in the process of writing a paper on light and air harvesting technology which is available on request. Sugarcane cultivation being his specialization, his research indicates that a combination of sugarcane and turmeric planting has a 'lichen-crop pattern benefit' meaning they enjoy a symbiotic relationship ensuring high yields of both.

Suresh Desai is basically an institution in himself. Like all pioneers, he has worked on his own without much

assistance from Government officials or universities, to perfect his system of organic farming in the growing of sugarcane and spreading the word widely.

Mr. Desai is presently the Vice-President of Global Green Agricultural Society, Kolhapur, Maharashtra which primarily works towards disseminating information on organic methods and an active working member of the Organic Food Club, Yamakanmaradi. He was honoured for his work by the Government of Karnataka as Krishi Pandit for the year 2005-2006. (Source: Communication with OIP)

JULI AND VIVEK CARIAPPA

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When the winds of fortune blow two unlikely souls into a partnership of perfect amity, people exclaim 'but, how did you do it?' Absurd temptation to give a ludicrous answer often crosses our minds. Instead, we are intrigued that testimonies of honest hard work yielding achievement are so surprising to many.

It's hard work to dream of a world worth living in these days. Especially when you corner yourself into duty and a 9 to 5 job, encircled by plastic, cement and steel that say nothing of the earth below, where you come from and where you will go some day. And between the coming and the going what have you to show for it and whom are you going to show it to, for what? I guess that's why we got our act together and started to dream.

Dreaming is a risky business. It makes you want to do things and when you are twenty with life's passion pulsing through your body, flowing in you mind, doing risky things seems like a wise idea. So we got risky, gave up our jobs to more worthy contenders and went searching for the holy grail.... A place to set down our dream.

This dream involved finding out about whether all this talk of our earth dying before our very eyes was true. It is disturbing to be just beginning your adult life and hear pronouncements regarding its very futility. So together, unlikely and impossible, armoured generously with love, we began our walk to the other side.

We found some land. Beautiful, hopeless, stony soil bordered by a trickling river and crowned with a naked hill of thorns. We thus challenged our earth, giver of life, to show us she was dead. We built a small stone house among the nakedness and began to plant trees, till the soil, sow seeds... You think we knew a thing about planting? We did not. But, we knew how to dream. That power made the two of us learn faster and work harder. We worked fourteen and a half acres of land with two pairs of hands, never giving up hope. Insane. Once we bungled things so badly that we had only 73 rupees left to survive an entire month, but Juli made stone soup and we got by. Along the way we quickly learnt that farming is perhaps the most under-valued profession that exists. Its complexity challenged us to innovate at every turn and continues to do so.

One part of the dream became a crusade. We vowed never to use chemicals, fertilisers or pesticides on the land. We have managed to keep that promise. Imagine eating a whole meal grown solely by your own effort, on your own land, without Malathion, lindane, DDT, or Roundup!! It's a marvellous feeling... good for the soul and a lot else too.

Over the years we realized that the conventional agricultural model has not been an efficient design for small farming, which makes up the majority of agrarian economy in India. Principles of seed-saving, multiple cropping, integrated and inter-dependent animal and soil husbandry, optimal utilization of animal and plant-waste, small-scale food preservation and storage and ultimately the cornerstone of strong community – family participation, have no value in the new scheme of things. Chemical agro-inputs have been terribly abused because their effects on the soil and ecological balance have been mis-understood. In the end, although our national food surplus is statistically pleasing, rural India is more food insecure than ever before and steadily losing its ability to survive in a 'free-trade' world, let alone fight for its share of resources.

Rural children are taught to yearn for city jobs and urban lifestyles and in a population of 1 Billion +, with all the cards stacked against them, they are unlikely to achieve their dreams. Instead, society will reap their anger and hunger not to speak of the collapse of rural economy. Our own children do not go through the conventional schooling system as the rural negative bias is very strong in the Indian system. As they grow up and work beside us on the farm they are aware that they are different. Their bonding with the Earth already tells us that they love her in a special way that we do not know. Hopefully they will be proud, innovative citizens of a healthy farming India, in their time.

Even our own experience has been a struggle with all the advantages of education and background that we have. We have had to learn not only how to farm per se, but also how to survive as a farming family. It has become clear that the sustainability of our operation depends on the diversity of our crops both from the aspect of establishing a fundamentally stable ecology on the farm as well as in terms of optimising energy inputs to sustainably maximise fertility, bio-mass and crop out-put.

From here on began another saga. The 'how to maximize the monetary RETURNS from our produce' question. During the first two decades of our farming experience we developed a value addition system that helped us to ensure that nothing left our farm in its raw state, we tried to get the final produce to the consumer ...directly. The grains are sold as flour, the perishable fruit as jams and jellies, the sugar cane as jaggery powder, the coconuts as cold-pressed coconut oil, soap and the cotton as hand spun vegetable dyed fabric and garments. This takes a lot of our effort and imagination but it has also improved our economic viability and our sustainability in the market society where every

thing is for sale.

Our cotton story in particular, illustrates the challenge and extraordinary effort we have had to put in to turn around the view of cotton growing as a losing proposition (as it is for small growers of raw cotton), into a highly integrated rural product benefiting rural society as a whole. We chose to grow cotton 19 years ago because it was a major crop in our area, consuming 60% of the national pesticide use. It took us several years of field trials before we could feel sure we were on the right track, but we finally grew good organic cotton and then were faced with the dilemma of what to do with the damn thing! It was completely demoralizing to consider selling our organic cotton on the conventional market.

Our age-old tradition of KHADI or home-spun was staring us in the face. In the first years of our journey into creating what we now call 'sustain life' textiles, we had trained a team of women locally to spin our cotton. This became unviable eventually as the activity required a stamina which was too challenging in an agricultural community which was too busy trying to survive. Now, in a world of ever increasing scales and volumes we attempt to spin our cotton in spinning mills which can provide us with a service of segregating our cotton and ensuring the yarn we get back is from our own cotton. The challenges are always there to keep our small production viable. Once our yarn is returned to us it is then sent to a weaving village in Kannur district, Kerala where 3rd and 4th generation handloom weaving families help us to convert our yarn into a wide variety of fabrics. We have trained ourselves in traditional vegetable dyeing and the art of shibori tie and dye and produce about 3000-5000metres of cloth from 3 to 5acres of cotton not to mention growing and extracting many of the vegetable dyes on farm). Our fabric is transformed into a number of different styles by urban women tailors and from beginning to end Krac-a-Dawna cotton ends up weaving together about 50 families, the majority of whom are rurally based! In 2008 we were able to produce possibly the only truly handmade indigo jeans. Even our coconut buttons are produced by local artisans from Kerala. The 'sustain life' cotton story will, we are sure, further evolve as we meet the challenge of creating a quality product in an ever-changing and fickle marketplace.

Krac-a-Dawna organic farm at present covers about 30 acres of land and grows, besides hedgerows and wild species of shrubs and trees, about 30 different kinds of crops, to which we value-add on-farm in one way or another. On a regular basis we employ six persons besides our selves and sell produce to at least 100 families locally in Mysore and other cities. For six years now we have participated in a bi-monthly green market and also supply many of our products to a growing number of eco-shops around India.

Most of our inputs are produced on- farm (such as vermi-compost and biodynamic compost) and these are enhanced by sustainable biotechnologies. We depend heavily on green manuring and cropping systems which utilise different yet mutually beneficial types of crops including, horticultural and plantation crops. In most cases we do not produce more than two acres of a single crop at one time and even these are generally inter-cropped with short-term crops like pulses, especially in cash crops.

Crop-protection is defined largely by careful soil management. It has been our experience that organic farming in itself is a tool to correct pest imbalance. Frequently pest problems are easier to control because the diversity of plants diffuses the situation quickly. Along with this we attempt to plan our sowing with respect to moon-phase activity and known pest peak periods which helps to reduce critical situations. Additional plant-derived pest control is occasionally used when the above systems prove inadequate.

As much as possible, we try to use seeds that are grown by other organic farmers or ourselves because the seeds produced for conventional farming are designed to respond to chemical inputs. However there are a few crops that we do grow from commercial seed for a lack of any other alternative.

Weed-control, intercultivation and successive planting using manual, mechanical and powered tools have proved to be an effective combination. Shallow tillage, whether bullock-drawn or using a small tractor, has conserved our soil and re-habilitated its natural self-sustaining mechanisms. Practical realities are the best motivation to constantly innovate and develop better techniques.

Every year we find the complementary relationship between the soil, crops, animals and humans requires less effort to maintain. This is proof of sustainable design; that no one part deprives another part of its ability to access the basic requirements of healthy living.

For many years Krac-a-Dawna has been evolving into an ever more beautiful and productive space for all the creatures who depend upon her. As her human family we have been ever grateful to be part of this experience and have tried, at every turn, to make choices that regard her overall health and vitality as the most important criteria in our decisions. Our children Kabir, Azad and Sukanya like the trees on Krac-a-Dawna, are spreading their branches in all kinds of ways knowing fully well that their roots are firm and well-nourished.

About four years ago, our eldest son Kabir (now20) went to a biodynamic agriculture course in Kodaikanal and spent a week with our friend David Hogg, a long time bio-dynamics practitioner. As a young person raised in the spirit and born into organic living, Kabir came back from the workshop bubbling with Peter Proctor's enthusiasm and speaking with remarkable fluency about the effect of planets, moon and sun movements on the earth, thanks to Rachel Pomeroy's good teaching. He felt we should apply some of the techniques he learnt there to energise the soil in an even more optimal way. Believing that the instinct of a child raised in organic farming was to be respected, we all

agreed to take part and learn whatever there was to learn from Steiner's teaching.

Krac-a-Dawna is a place that was never 'ideal' for agriculture. It is stony in most parts, uneven, hilly and with a very thin layer of soil in many areas. Our diversity in crops, mixing horticulture, agriculture and plantation crops was really our salvation. The mixing of crops had the two-fold effect of re-vitalising the soil, while maximising the utilisation of whatever was there. Through the seasons this further effected a spiralling cycle of aeration, humification and water holding capacity in the soil while the microbial life returned en-masse thanks to the regular green-manuring, vermi-composting and mulching we practised. We were doing well, but our harvests were never quite as good as they ought to have been; the healing was taking place no doubt, but it was slow. Years of soil and wind erosion as well as de-forestation prior to our stewardship had taken a deep toll that was not going to recover quickly. It was at this juncture that biodynamic principles as well as the application of panchagavya began to take effect and literally, turn the tide.

Within the first three months of using biodynamic preparation 500 and 501 and applying panchagavya at critical intervals there was a distinct effect. We thought we were imagining the heightened sense of wakefulness in the life around us until several visitors who had visited us before, remarked 'something has really changed on this farm' 'everything looks so green and alive!' When the food began to taste different and the solidity of the produce reflected an ability to withstand pests and diverse weather conditions we realised that we were not just dreaming it all up.

It was probably the sugarcane and cotton that finally verified that there was a qualitative difference in the performance of the living energy of the microcosm of the farm. The harvest of sugarcane brought a 30% increase in sugar yield and the cotton fibre was tested to show there was a substantial increase in the tensile strength of the fibre besides an increase in yield. Almost across the board we were seeing a comparative qualitative improvement in our almost 30 different crops which required almost no intervention in pest management, had better keeping quality and definitely improved taste as frequently told to us by our consumers. Much of these improvements were also influenced by our increased understanding of the cosmic rhythms with relation to the earth's seasons. The subsequent years have also seen a remarkable difference in the health of our animals and our own bodies seem to be more resilient and have more stamina. 2007 brought us to the point where we are producing our own cowpat pit, BD 500, BD 501 and our own formulations of panchagavya and jivamrutha which are essentially ancient Indian liquid soil conditioners that can be made by any farming family.

The last few years have also broadened our experience to embrace many other farming families in our taluka who have asked us to help them develop a strategy to make a transition to organic farming. Thus was born the Savaiyava Krishikara Sangha (SKS) with a present membership of 150 farming families. For many years we had waited for other farmers to want this change. Often we were criticised for not going out and 'converting' other farmers, but we believed that the missionary way was best left to missionaries and when the time was right we would be ready with a model not only for organic farming but family based organic farming and living. We have developed a unique internal self-assessment system based on our own experience and earlier organic certification with JAS (thanks to the inspired thinking of Kihata-san) which is implemented through record keeping, farmer inspections and monthly meetings to discuss a wide variety of issues regarding the growing and marketing of our produce. We are all under a group certification with IMO; Krac-a-Dawna is the model farm where all the different techniques we use are a resource for the entire group. Some families have even adopted some bio-dynamic principles but the process of transition is different for everyone. The important thing is that these farming families are developing sustaining strategies to take care of the land and feed their own families; in befriending the land we all tend to change the way we view ourselves and the life around us. We change, we breathe easier, we grow, we learn to live in harmony with the earth and the cosmic rhythms.

We have now been farming organically for more than half our lives and one could almost say the transformation has been complete. We are not the same creatures we were 24 years ago. As we grow older, we begin to see that the most important things are the ones that are gradual and are likely to have a long term effect. Our business relationships, whether with our consumers or with buyers small or big, are ones that take the long view. With them we build the soil responsibly, with us they can make responsible investments for the future of the Earth. This is largely why bio-dynamic composting and vegetable growing have become important things to do here. Building soil, improving air and water quality and building healthy plants, happy animals and happy people are the most lasting things we can do for this planet.

Juli and Vivek Cariappa, farmers by choice. (Source: Communication with OIP)

VARANASHI FARMS

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The 30 hectares Varanashi Farms (VF) is located in Bantwal Taluka of Dakshina Kannada District, bordering the State of Kerala. The farm is situated about 25 km from the sea coast. Dr. Varanashi Krishna Moorthy, an agriculture microbiologist and Ms. Ashwini Krishna Moorthy, a specialised ecologist, jointly manage this farm.

Areca nut is the main crop, followed by coconut and rice. Cocoa is extensively inter-cropped with areca nut. Pepper

and banana are also inter-cropped. Cashew nut is grown in the dry upper reaches. Vanilla was introduced in the early 1990s and it has been inter-cropped with areca, cashew, coconut and other forest tree species. Vegetables are also grown throughout the year for self consumption. Apart from these, teak, *Acacia aureculiformis* (acacia), mangium, mahogany, bamboo, jack, casuarina, etc., are grown along with other existing forest trees, making the environment very natural and eco-friendly.

The farm was converted to organic in the early 1990s and this was found to be sustainable, both from the point of view of yield as well as income. The soil also has become more fertile with a higher content of humus. Pests and crop diseases decreased considerably after the switch over to organic farming.

The successes of soil and water conservation techniques adopted here have drawn the attention of other cultivators around. In the 1990s, seven acres of areca nut, in one section of the farm, used to receive irrigation only once in 20 days, during the late summer season, reducing yields considerably.

To improve the situation several measures for rainwater harvesting were begun, such as the construction of catch pits, percolation ponds, madakas and check dams. This has helped recharge groundwater sources and bore-wells. Today, the area under irrigation is more than double with a fairly big nursery in operation and all the workers' houses getting water supply. Despite this increased consumption, sufficient water was available even during the severe summer of 2003.

The construction of a temporary barrage (115ft long & 10ft high), across the adjoining Seere River, in 2003, helped water accumulate along a 1.5 km length of the river basin. The dam was constructed using sand bags and plastic sheets instead of the normal practice of stones and mud. This improved system, in comparison to the traditional 'Katta' (barrage), was constructed with less money and labour.

Water conservation techniques include: the collection of waste water from all sources such as hotel, household and bathroom washings and using them directly, or along with the slurry from a gobar-gas unit, for irrigation and manuring purposes. Recently three units for utilizing toilet waste by digestion in RCC septic tanks were installed. The ultimate plan may be to supply, through micro-pipes, water/nutrients from here to crops like areca, banana, cocoa, etc. With all these steps the situation has turned from one of water scarcity to surplus.

Varanashi Farm has recently become the hub of many trainings, workshops and demonstrations of farming techniques. Compost preparation by the VRF method, developed in the mid-1990s, has become popular amongst cultivators of Kodagu, Dakshina Kannada, Chikmagalur, Hassan and Shimoga districts, resulting in substantial savings every year in the manure bill for growing of coffee, cardamom, areca, cocoa and other perennial crops.

Growing multiple crops on Varanashi Farms and adopting organic farming methods, has brought the farm closer to a forest eco-system. In this way the land inherited from ancestors is being gainfully used and will be passed on in a safe and sustainable condition to the next generation. VRF is presently engaged in building a model organic village. (Source: Communication with OIP)

VARANASHI AGRO-SUSTAINABLE TECHNOLOGY CENTRE,

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Varanashi Agro Sustainable Technology (VAST) Centre is involved in the manufacturing and marketing of the following eco-friendly farm inputs developed by the Varanashi Research Foundation(VRF), a R&D organization recognized by DSIR, Government of India.

KAILASH MURTHY

No. 12, 9th Cross, Adhi Sakhi Road, Shakti Nagar, Mysore – 570 019, Karnataka.

Several national dailies and other sundry newspapers have all carried the story of Kailash Murthy in their papers, at one time or another. When this bank employee by profession and farmer at heart took to farming he began with chemicals which, at the time, seemed to him to be the conventional and tested wisdom. Though the harvest then had been good, he soon became aware that the fertility of the soil was deteriorating. He was also concerned with the poisons that were going into the earth and foods.

It was around this time that Kailash was struck by the profound truths written by Masanobu Fukuoka in the book 'One Straw Revolution' that he happened to come across. Kailash immediately gave up chemicals and took to natural farming. In Doddinduvadi village, 10 km from Kollegal, Charamrajnagar District, a region which has been reeling under successive drought conditions, he now shows the way to despairing farmers: the path to success in farming with the least physical effort and the least expenditure; zero input and great output.

'Not much investment is required as everything is left to nature,' says Kailash. 'Farming is not done by human beings as we think, but by tiny creatures like earthworms, ants, birds and microbes which are abundant in nature.' A scoop of soil from his farm can be observed to be rich in earthworms and other soil life. The farmer follows the no-interference rule to its maximum. A fallen tree is allowed to lie and rot and become a part of the soil. Unlike other farmers he does not like to disturb anything. The sight of some bananas eaten away by animals does not trouble this

radical farmer who merely mutters under his breath that animals too have a right to food. An abandoned well at one corner of the farm seems to be a home for snakes from the number of skin molts observed. Kailash refuses to disturb the snakes as well!

Kailash has been experimenting with natural farming on his 6.5 acres land since 1988. His farm looks more like a diverse forest, with hundreds of varieties of plants including food crops and 60 varieties of edible plants with medicinal properties.

The benefits of natural farming include savings in the cost of fertilizers and pesticides and even manual labour, as this kind of farming requires no ploughing or weeding. Nothing is borrowed from outside except electricity to pump up water for his farm.

To prove that natural or zero farming should be promoted all over the country, Kailash conducted successful trials of growing three different varieties of paddy with an average yield of 30 quintals per acre of sown area. He thinks the notion that, natural farming is neither profitable nor commercially viable should be dispelled.

And finally adds, he was fortunate enough not to go to an agricultural college. (Source: Communication with OIP)

DR A.N. NAGARAJ

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Dr. Nagaraj served the FAO in many countries for several years. One of his work assignments was based in the U.S.A. where he lived for eleven years. The western culture of exploiting natural resources and manipulating nature especially in the field of agriculture through introduction of chemicals into farming had a deep impact on his way of thinking. Around the time he also read *Silent Spring*, reflecting the ravages done by pesticides to crops. He resigned his job and returned to India in 1973, in a way to make amends with mother-nature. For a decade now he has been living at Bheemanakatte and experimenting with natural farming on his two acre farm. The farm is essentially a fruit orchard with sapota, mango, jack, fig, banana etc. areca and coconut are being grown as a revenue generating component on the farm. His farming practice is more on the lines of Fukuoka and the only input of the farm is in terms of mulching.

The experimental farm caters to local visitors and farmers who come to discuss farming techniques with Dr. Nagaraj. Visitors are welcome with prior intimation.

(Source:Teleinterview with OIP)

DR ANAND TITUS PEREIRA

Anand Estate, Sundekere Post, via Saklespur, Hassan District—573 134, Karnataka. Ph: 08173-329231.

According to Dr. Anand: ‘We have a medium sized 100 acre farm. The main crop is coffee (Robusta) along with multi crops like arecanut, cardamom, pepper, coconut, banana and orange. Due to the acute shortage of labour, we have converted our rice fields into arecanut gardens.

‘The back bone of the farm is the organic matter content in the soil system, built up over a period of many years.’

Dr. Anand is an expert on organic coffee, no one we know has studied it as consistently and documented findings as meticulously. He has also carried out extensive research on biological nitrogen fixation, azolla and paddy cultivation and has held various demonstration trials on the safe use of organic manures. He has several published papers to his credit. One can find his technical papers on growing coffee on line at www.ineedcoffee.com and www.indiacoffee.org

(Source: Communication with OIP)

A.P.CHANDRASEKHAR

Indraprastha, Kalalavadi village, Post Udbur, Mysore - 570 008, Karnataka. Ph: 08251-2597936

Chandrasekhar is a self-made man. A mechanical engineer by training he followed that profession for only one year and thereafter took to farming. He confesses that he finds himself being daily educated and entertained by his closeness to nature.

He has worked a 13 acre farm for the past 25 years, nineteen years of which have been as an organic farmer. He has more than 2,500 species of plants on the farm, growing everything that can grow. His main crops are a combination of coconut, arecanut, lemons and vanilla. When he purchased the land it already had coconuts so he added several new varieties besides a host of other plants. Everything is intermixed.

The plants can be broadly classified as commercial, medicinal, ornamental, food crops, tree crops, shrubs, creepers, tubers and grasses. Besides coconut, there are areca-nut, mango, banana, chickoo, pomegranate, coffee, paddy, turmeric, tamarind, ginger, arrowroot and colocacia plants grown on the farm. In each of these, there are several varieties. The farm has 200 varieties of fruit trees, 300 varieties of edible leaf plants and around 100 varieties of tubers.

Chandrasekhar’s aim is to get as many varieties of a plant as he can so that the farm can become an imitation of a

forest. Native varieties come up on their own but he keeps a sharp look out for new varieties and adds them to his farm. He has a plant with leaves that are salty to taste and an edible cactus too.

The farm is irrigated with water from five ponds. There are pump-sets and pipes etc., but every year he has been reducing the irrigation. Half an acre of land has been left free for Mother Nature to grow what she likes on it. Nothing is done on this half acre, no irrigation, no manure or anything else. However a variety of 20 to 25 crops have come up on their own through natural seed propagation. Chandrasekhar watches and learns from nature how she is taking care of this land. He feels confident that the natural way of farming is entirely possible. Some crops will require irrigation, but not all.

When he started farming there was just three to four feet of water in the wells in summer. Now because of plant diversity, because he uses less water for irrigation and because the land is covered with all manner of trees, plants, creepers, and tubers etc., the water harvesting capacity of the land has greatly increased. Even in summer there is now 15 feet of water in the wells and during the monsoons it reaches its full height of 25 feet.

The produce is sold either directly or by adding value through processing. Ten persons are employed on the farm and at least one hour everyday is spent on processing the produce into juices, jams, dry fruit, medicinal powders, tooth powders, herbal bath powders, coconut oil and soaps, etc. Chavanprakash is also made utilizing around 50 herbs. The produce is sold through NESARA, an organic products outlet at Mysore.

Chandrasekhar believes that in organic farming, techniques are irrelevant. Organic farming means fewer and fewer techniques. Therefore he has reduced irrigation, doesn't do vermicomposting and does not even plough except for growing paddy. Yet the farm is surviving very well. Insect problems are there but not serious. Even if the crop is attacked by insects, there may be no crop for sale, but there is enough for personal consumption.

He has 15 cattle of both local and cross bred variety. They are meant more for manure than for milk. He has a breeding bull too. He feeds them with coconuts and tubers which cannot be sold and this reduces the cost of feed. Even though he does not press for high yields of milk he sells about 10 litres of milk everyday. Ghee is also prepared. Bees have also been kept and there is honey for sale. A small workshop on the farm caters to all the smithy, welding, repair and maintenance needs of the farm.

Self sufficiency is thus the key to the success of Chandrasekhar. He says that he has learnt to do everything from hair cutting to slipper repairing and has functioned without debts and without taking any loans. He is the author of two books: Kumkumadinda Kranti (Revolution by Organic Kumkum) and Navu Prabudharaguvudu Yavaga (When We Become Realized). He regularly writes for the local papers on organic farming, nutrition & cookery as well as environmental issues.

(Source: Tele-interview with OIP)

A.N. CHANNAPPAGOUDRU PATIL

c/o T T Patil, Belur Village, Post Kataraki, Taluka and District Koppal, Karnataka. Cell: 09972194847

Channappagoudar has been involved in organic farming for over two decades. A retired Block Development Officer he first tended to both his farms, one in Bannikoppa village in Yelaburga taluka and the other in Belur village in Koppal taluka. Subsequently, he shifted his study on application of sustainable farm practices under an organic farming system to Belur village.

Channappagoudar's aim has been to study how to combat conditions of drought using the most sustainable practices in an organic farming system, avoiding completely the use of chemical fertilizers and pesticides and making the agricultural occupation a profitable business, whatever the conditions of climate, rain and soil.

His farm is divided into different cultivable areas and plots depending upon factors such as the slope of the land, the type of soil and the depth of the topsoil. Plots are leveled without unduly disturbing the top soil in order to conserve all the rain that falls and to maximize its percolation into the soil.

The principle of recycling organic matter is followed. After harvesting, all crop residues are recycled into the land under cultivation through composting. Whenever there have been favorable conditions such as early rains, green manure crops like sun-hemp, horse-gram and coriander are sown and ploughed back into the soil either directly or after composting. In the past 20 years, however, such green manuring has only been done five times as it is dependent on limiting factors such as timely rainfall, feasibility of sowing time etc.

Vermicompost has been applied every two years in some plots, to study the cycle of hatching of eggs and cocoons and arrive at optimum conditions a soil must have for it to become self regulating and productive in terms of organic content and fertility.

Crops that are sown are chosen to suit the soil conditions and the available rainfall, which may differ from time to time.

Along the above guidelines, the following observations were made in the trial plots as compared to other plots in a studied year.

Crop	Yield in trial plot	Yield in adjoining fields
Wheat	1 quintal	Less than half quintal

Rabi Jowar	2 quintals	1 quintal
Sunflower	11/2 quintal	1 quintal

(Note: Rainfall during the year was approximately 400mm. Around ten years of application of organic methods had preceded the studied year.)

Besides the increased yields of some crops as mentioned above there have been other benefits as well such as increase of the organic content in the soil that has helped control pest attacks and diseases. Drought conditions in a dry-land farming scenario have been mitigated up to the extent of 60-65 percent. There has been an improvement in input and output ratios. The moisture holding capacities in root zones have improved, resulting in an improved seed rate for sowing. Groundwater levels have stabilized due to water harnessing and soil conservation techniques.

Channappagoudar is confident that in dry-land agriculture conditions, organic farming is the answer to keeping a farmer debt free, happy and prosperous. Channappagoudar's son Thutanagouda T Patil is now carrying on the traditions of organic farming put in place by his father.

(Source: Communication and Tele-interview with OIP)

H C ASHOK SHETTY

Malathesa Organic Farm & Nursery, Post Rattihalli, Malagi Road, Hirekur Taluka, Dharwad District, Karnataka - 581 106. Cell: 09449708110/ 090086469844

Ashok Shetty adopted organic farming because of severe financial difficulties. He gives credit to D D Bharamagoudra, Narayana Reddy and the Adike Patrike magazine in encouraging and motivating him to adopt organic farming. The once perennial Kumadvati River which flows adjacent to Shetty's land now has water only during the rainy season. The average rainfall for the past 10 years has been around 600mm only. A pump-set has been installed on the riverbank but this is useless when there is no water. Therefore, a bore-well was also dug to irrigate the farm.

Banana Cultivation:

By using only manure made of plant wastes, animal dung and urine, Shetty succeeded in getting high yields from his banana cultivation. Transplanting banana suckers on Amavasya (new moon day) helps the plant to gain resistance to disease. Maintaining a distance of six feet between each plant and five feet breadth between each row, he provides a mixture of one basket of FYM, half a basket of raw dung, three handfuls of ash, a handful of salt and half a kilogram of neem cake to each plant.

Before transplantation, he grows Niger and during its flowering cuts it into pieces, spreading it over the soil. This helps the banana plant get nitrogen. For five months after transplanting the banana, he sprays a 1 : 10 ratio dilution of cow's urine and water, once each week. Once every month he applies a cow-dung and urine extract (a composition of five kilograms cow-dung with one litre of cow's urine plus water) to keep the plant healthy and free from disease.

To manage nematodes he plants marigolds along with the banana (two marigold plants for each banana plant). Though the harvest is delayed by doing this, he finds the yield is greater. In this way, from 35-40 kg of banana, he is able to get 130-150 banana fruits.

Coconut cultivation

For the last 18 years he has been organically growing coconuts. The water scarcity forced him to experiment and observe the results of watering the trees at different intervals. With this experience he has adopted a pattern of watering his coconut trees only once every 30-35 days. He says that, with this frequency of watering, he is able to get results as good as that obtained by other farmers who water their coconut trees every 12 days. When he was farming with chemicals he used to water his trees every eight days.

Since 1988 he has neither ploughed the land nor provided the crop with any kind of synthetic fertilisers. Whatever wastes he gets from the coconut trees he puts back into the soil on his farm. Because of this, the weeds have reduced and the structure of the soil has improved. The coconuts he gets from his farm have a thicker kernel. Consumers also say that the coconuts are tastier and rich in oil content. Therefore he manages to get a slightly higher price for them.

What is the reason for his success, despite the reduced water input?

A pulse/dicotyledonous plant (the name of which he is not aware) is allowed to grow and spread out on the land. The roots of the plant have nodules which are nitrogen fixing. The plant also has a lot of leaves which it profusely sheds off (if anyone walks barefoot across the land the soil feels spongy). This helps the soil to absorb and retain water. The increasing number of earthworms in the soil is an indicator of the soil's good health.

Shetty also cultivates downy Jasmine. For this crop, he applies BD 500, amrut pani, amrut sanjeevini, milk spray and cow urine spray to get better yields.

He has managed to control pests through the spraying of garlic-chilly extracts, cow's urine and neem oil combinations, the extract of calotropis, and other such preparations.

He is experimenting with the use of panchagavya and also making sufficient quantities of vermicompost and vermiwash for use on his land.

He concludes that it is extremely beneficial for farmers to share their knowledge and experiences among themselves. Visiting the farms of other organic farmers and keeping in communication with them is essential for any farmer who

wishes to adopt organic farming methods.

(Source: Communication with OIP)

ISHWARAGOWDRU L. PATIL

Surashettikoppa, Via Tadas, Kalaghati Taluka, Dharwad District - 581212, Karnataka. Cell: 09901171491/09448112974

Around 26 km from Hubli in Kalaghati taluka of Dharwad district is Ishwaragowdru's 23 acres farm. Born in a farming family he has been directly involved in farming since 1975. Organic farming has been practised on the farm since 1965 as the family did not believe in the use of chemicals in agriculture. Neither chemical fertilizers nor pesticides are used on the farm. Paddy, jowar, cotton, chili, thor, black-gram, green-gram, beans, soya beans, vegetable and fruits are grown here.

Ishwaragowdru says that it is not difficult to practice organic farming. He keeps some cattle for organic manure and also uses tank silt to enrich the soil on his land. Apparently all the farmers in that area had been practising organic farming prior to 1965. However that year CSH-1, CSH-2 and CSH-5 jowar seeds, that required chemicals, entered the agricultural fields. The farmers realized much later that the fertility of the soil was decreasing year after year because of the use of chemical fertilizers and pesticides.

On his farm insect pests are controlled by spraying cow urine and other solutions prepared by mixing tobacco and neem extracts and mixtures of leaves nine other plants.

The surplus paddy, gram and chillies is sold in the markets of Hubli and Kalaghati as well as in Ranebennur and Haveri markets.

Compost manure is not available in the quantity it is required and this is one of the problems of farming organically in this area. On the other hand, because of drought conditions, it is difficult to maintain more animals on the farm for this purpose. Despite this, because of the savings in costs that is possible by non purchase of chemicals, organic farming is economically feasible. Hence farmers in this region are slowly switching over to organic farming.

Ishwaragowdru feels that organic farming is a safer and more suitable alternative as compared to chemical farming. Apart from the economic benefits, the ecological and agricultural benefits in terms of improved soil fertility, the improved environment and the wholesome produce that results, are sufficient reasons to farm organically.

(Source: Communication with OIP)

K.B. VIJAYARANGA

'Shreeshaila' Karimane Village, Post Kalkere, Koppa Taluka, Chikkamagalur District—577 123, Karnataka. Phone: 08265-251460

Vijayaranga is an organic farmer whose main crop, coffee is grown in the forest. His experience with organic farming for small sized family farms that depend entirely on farming as the only source of income has not been very encouraging. He is convinced that it is a difficult proposition for small farmers and presently grows only vanilla organically.

(Source: Teleinterview with OIP)

H MURALIDHAR RAO

Harandoor village, Hadlu kodige Mane, Post Koppa, Chikkamagalur District – 577 126, Karnataka. Phone: 08265-221385

Rao has been growing coffee organically on five acres of land for the past 20 years, and gets a yield of 75 to 90 bags each year depending on microclimatic and weather conditions. He uses mainly green leaves as manure and claims coffee can be grown organically with very simple and minimal inputs. His only dissatisfaction being that he has not been able to market it as organic. People approach him for coffee during the growing season, but do not follow it up with purchase after harvests, so he is forced to sell it to local traders. Small quantities for home consumption are picked up by locals who appreciate his special brand of coffee.

(Source: Telecommunication with OIP)

JANAPADA SEVA TRUST

Melkote 571 431, Pandavapura, District Mandya, Karnataka. Ph: 0826-298754, Email:janapada@yahoo.com, web:www.janapada.org

Contact Person: Santosh Koulagi.

Janapada Seva Trust (JST) a voluntary organization inspired by the Gandhian ideal of Sarvodaya was established in 1960. The Trust has been carrying on its activities in and around Melkote.

Its philosophy focuses on experimenting with and experiencing non-violent options.

On 25 acres of dry-land many experiments in organic agriculture are undertaken. An effort to collect traditional

varieties of seeds selected and cultivated by the farmers in the area is on.

JST has a publishing wing which has published books in Kannada on organic farming, including a Kannada translation of Fukuoka's 'One Straw Revolution'.

(Source: Communication with OIP)

INSTITUTE FOR CULTURAL RESEARCH AND ACTION (ICRA)

Samskruthi, 22, Michael Palya, New Thippasandra Post, Bangalore –560075, Karnataka. Ph: 080-25283370, E-mail: icra@bgl.vsnl.net.in

(Contact: P. Babu)

The Institute for Cultural Research and Action (ICRA) is working with 3000 marginal and small farmers in semi arid tracts of central and southern Karnataka. ICRA encourages and supports ecologically sound and financially stable agri-diversity based sustainable organic agriculture practices. These efforts are augmented by indigenous genetic and other resources, especially seeds and traditional skills. Based on both ecological and economic implications, ICRA focuses on 'select' crops like pigeon pea, cotton, and groundnut, paddy and small scale vegetable production.

ICRA through its multifarious activities seeks to defend the rights of small farmers to knowledge systems, natural resources and indigenous seeds. It supports the movement towards self-reliant and regenerative production system and is committed to the fight against corporate globalisation and stands for a GM free world.

ICRA is involved in:

1. Promoting agri-biodiversity based organic farming practices.
2. Organising periodic workshops, training programme on promising alternative agriculture practices like quarter acre farming, bio-dynamic farming, permaculture, homeopathy and agriculture
3. Initiating action research on socially relevant themes like ecological economics of mixed farming system, suicide of farmers, agriculture labour, seed sovereignty, food security.
4. Public sensitization campaigns.
5. Publication of Kannada bio-monthly 'Sahaja Saguvali' on sustainable organic agriculture with explicit focus and rainfed area organic farmers' knowledge and experiences and against machinations of MNCs.
6. Facilitating organic farmer – consumer linkages. ECONET, the first organic outlet in South India was initiated by ICRA.

ICRA has started the Other Karnataka Book Store, has extensive publications in Kannada related to agriculture and sustainability. Books like The Agricultural Testament, writings of Prof. Dabholkar, Bernard of Auroville, Peter Proctor and personal histories and experiences of pioneering organic farmers from Karnataka are its prized publications.

The organization has played a major role in founding the Organic Farming Association of India. P. Babu is a member of the National Steering Committee of OIP. OFAI Karnataka state secretariat is hosted by ICRA.

(Source: Communication with OIP)

AGRICULTURE, MAN AND ECOLOGY

AME Foundation, PO Box 7836, 1583, 17th Main, II Phase, J.P. Nagar, Bangalore – 560 078, Karnataka. Ph: 6596780 / 6582835; Fax: 6583471, Email: amebang@giasbg01.vsnl.net.in, Website: www.amefound.org

(Contact person: T.M. Radha)

AME Foundation is a development-oriented, non-government organization, committed to improving the livelihoods of resource-poor farm families, in dry land areas, through the promotion of ecological agriculture. Towards this objective, AME functions as an organization focusing on human resource development, building institutional collaboration and sharing information and experiences.

AME started as a project in 1986 and was located in Pondicherry, Tamil Nadu. Till 1990 it was involved in building awareness on organic farming. Between 1990 and 1996 it moved towards hands-on training for farmers in participatory technology development. In 1994, the AME was shifted to Bangalore with a special focus on dryland agriculture in the Deccan Plateau. AME has been promoting knowledge generation and its enrichment, particularly related to ecological farming and LEISA (Low External Input Sustainable Agriculture) technologies through participatory capacity building processes and experience sharing. It also facilitates knowledge generation from farm practitioners by encouraging farm level innovations through the processes of Participatory Technology Development (PTD) and Farmers Field Schools (FFS).

Besides conducting need-based, structured, long as well as short season duration training programmes, AME also conducts seminars and field days for exchanging and enriching people's understanding of sustainable agriculture. It publishes crop specific manuals, guidelines, working papers and case studies. LEISA India, a quarterly magazine brought out by AME, is a meaningful platform for sharing eco-farming alternatives and reaches a large number of people interested in sustainable agriculture.

(Source: Communication with OIP)

THARANATH

Bilumandi House, Begunvalli Post, Thirthalli – 577 226, Karnataka. Ph: 08181-84095

Tharanath farms on 10.70 acres of land which is his ancestral property. On 3.50 acres he cultivates paddy. Sometimes he grows sesamum or some other grains. On two acres of land, arecanut and pepper are mainly grown, with a scattering of vanilla. On 3.50 acres of land, he has rubber. An interesting element is that he has left about 1.70 acres of land for herbal conservation and growth of a natural forest.

Tharanath says that his father traditionally was an organic farmer. But after Tharanath started farming in 1985 he thought to use chemical fertiliser which was associated with modern farming. In 1988 he attended a public function organised by Udyana Kala Sangha, where he learnt from Narayan Reddy that using chemicals for agriculture was harmful. After that he visited Auroville, Pondicherry, Narayana Reddy's farm and Purushottam Rao's land. Then, in 1990 he started farming using organic methods.

He makes organic compost manure with cowdung, dry leaf litter and other agri-biomass. If he finds any deficiency (nitrogen) in any plants or crop he applies a herbal solution developed by him with the use of a herbal plant called Kakisoppu or Kakamari (*Anamirta cocculus*).

(Source: N. Balakrishnaraj/Nagaraj K.T.)

M.K. DAYANANDA

Alandoor, Shettikoppa Post, Narsimha rajapura, Chikmalagur District-577 134, Karnataka. Ph. 08266 233061/233261
Cell: 9449540677/ 9980456660

Dayananda is farming about 30-35 acres. For some years now, he has stopped using chemical fertilisers. But he uses Bordeaux mixture for fungal disease in arecanut trees and also rock phosphate (Mussuripas) in negligible doses. He is not happy using the above mentioned chemical mixtures. If alternatives are provided or invented, he is ready to give them up. He is also in search of these.

His farm is in the hilly area of the Western Ghats which receives heavy rainfall. 20 acres are with Arabica and Robusta coffee, pepper, lemon, antwala, jackfruit, mango (wild species), rare and other forest species. In 9 acres he grows arecanut, pepper, banana, lavang (cloves), elakki (cardamon), cinnamon, vanilla and betel leaf. On 22 acres he grows paddy. He has 8 acres of grazing land which was completely without tree species. In the last 20 years plenty of mixed varieties of trees have come up, by protecting fodder growth for animals.

He has dairying with a few exotic breeds. He adopted the smokeless chulla (ASTRA model), bio-gas plants of the Janata and Deenabandu models and a drier. All these contribute in saving fuelwood. Another interesting factor is that water flows naturally through his land and at the top passes through a big tank. This tank helped him to adopt the sprinkler method for about 14 acres under the gravitational power system. The drier was constructed on 21.11.1987 and it was the second construction in Karnataka by KSEST.

Dayananda is from the Gowda community married to a Jammu and Kashmiri girl named Manjula. He has two children. He is also the President of the Village Forest Committee in his village. He has the habit of collecting exotic species on his travels outside his village. It is worth visiting his farm.

(Source: N. Balakrishnaraj/Nagaraj K.T.)

SHANKER S. ACHAR

Belavadi Estate, Kalkeri Post, Koppa – 577 123, Chikmagalur District, Karnataka. Ph: 08265-35633

Shanker S. Achar is a middle-aged, interesting farmer. He has 20 acres of coffee plantation (Robusta) with pepper, orange and coconut as mixed crops. Silver oak is also grown for shade. In 4 acres he grows arecanut along with pepper and Jaikai (nutmeg). Since 1992 he is not using chemical fertilisers, but uses Bordeaux mixture for arecanut fungal disease. He says that sometimes milebex disease attacks and naturally disappears during the rainy season. He first came to know about the ill-effects of chemical use through Pradeep Thapas and Purushottam Rao of Krishi Prayog Parivar. When he realised the truth he stopped the use of chemicals. He has good yield for the past three years with an average of 650 bags per year as compared with the average yield per acre on other farms in the area being about 13 to 15 bags per year.

(Source: N. Balakrishnaraj/ Nagaraj K.T.)

U. M. RAMESH RAO & S. DINKAR RAO

Yellikodige Estate, Aldur Post - 577 111, Chikmagalur District, Karnataka. Ph: 08262-250058 Fax: 08262-250528
(Contact Person: K.R. Sethna, U M Rao Cell:09448459411)

Yellikodige Estate is a beautiful coffee estate alongside the road from Chikmangalur towards Mudigere. It covers 156 acres of land which goes up to the mountain heights and down to the valleys below. About 109 acres are plantations of coffee of the Arabica variety i.e. SLN 288 (80%), Catimore and Cauvery. The estate was started during the British period, under the ownership of Mr. Godfrey and later under Mr. Middleton. About 30 years ago it was sold to Mr. K.R. Sethna, who subsequently transferred the ownership to the present owners. Twelve years ago, Sethna gave up

chemical fertilisers and started organic farming methods of plantation management which are still being continued.

Various methods of organic agriculture were adopted in the estate. Sheep manure, poultry manure, neem cake and fish manure are used proportionately according to the need of a plant. Dried leaf litter and green leaves are used to the maximum to protect the moisture of the land. There are about 40 permanent workers and about 30 seasonal workers required on the estate. Coffee pulp is also used to prepare composts within the estate and this is applied mainly to weak plantation blocks.

The yield is very good and has been steadily increasing from 42 tonnes in 1994 to 81 tonnes in 2001. The production has gradually improved after giving up chemical applications.

(Source: Communication with OIP)

A. JAGDEESH KARIMANE

Post Kalkere, Koppa – 577 123, Chikmagalur District, Karnataka.

Karimane Jagdeesh and his family own 42.75 acres of land in Karimane village. On 30 acres, he has planted coffee of the Robusta species. In between, pepper, coconut and cardamom are planted. On 4 acres, he grows paddy once a year. The yield is good. The yield in coffee also is very high.

Prior to 1990 he used chemical fertilisers and pesticides. He was made aware of the ill effects of chemical use in 1988, through an article published in Sudha – a Kannada weekly magazine – on the farming system of a natural farmer in Japan named Fukuoka. He realised that farmers are spoiling the fertility of the soil by using chemicals. Later he learnt of the principles and techniques of organic methods through Pradeep Tapas and Krishi Prayog Parivar.

From 1988-89 onwards upto 1990 he did some experiments on controlling pests but did not fully succeed. In 1990 he completely gave up chemical use. After giving up chemicals there is no problem. One year pests attacked the corner of a paddy field. He did not apply anything. Thereafter there was no pest attack. Earlier he used soil from forest leaves, leaf litter, cowdung and gobar gas slurry. But an environmentalist of his village pointed out that using soil from forests for the field is against nature. Therefore, he gave this up and now uses poultry manure, sheep manure, fish manure and neem cake.

He has 2 acre plots exclusively of coconuts, another 2 acres of palm oil and another 2 acres of pepper only. He has 2 acres of natural forest area where he doesn't want to intervene or disturb nature. He says that he wants to show how a farmer can protect forests. One interesting feature of his field is that he has contour trenching to check soil erosion.

(Source: N. Balakrishnaraj/Nagaraj K.T.)

ANANDA RAMA

Malligenahalli, Shimoga Post & District, Karnataka.

(Contact: Nagaraj K.T., Ganesh Bhat Upponi and Alandoor Dayananda)

For the past few years, an experiment on the concept of ideal farming is on in Malligenahalli. The institution named 'Ananda Rama' has about 29.5 acres altogether. This land has been developed with zeal and mission through a collective effort by 'Ananda Rama' organisation. It is worth a visit to see the natural regeneration of forests.

(Source: N. Balakrishnaraj)

SHIVARAJ PATIL

Manni Post & Taluka, Raichur District, Karnataka

Shivaraj Patil is a progressive organic farmer in a dryland area. He has about 20 acres of dryland where he has grown mango as the main horticultural crop under drip irrigation. Initially the land was completely rocky and barren. Now there are innumerable species of plants. He was once an advocate but gave up law and took to agriculture as a profession on property which he inherited. His son also did M. Sc in Agriculture Science. Both of them have an ambition to plant and protect all the species of the world which can survive in their land. He has extended organic farming practices to his paddy field. His land is worth a visit during September-October.

(Source: N. Balakrishnaraj)

SARASWATHI AMMA AND MAHABALESHWARA BHAT

N. Subramanya Bhat, Yermaje House, Kukkeddi Post, Belthangady Taluk, D.K. District.

The farm was earlier a joint property and traditionally they were not using chemical fertilisers and pesticides. In the 1980s chemicals were used on the land. For the last 25 years no chemicals have been used. Instead they use poultry manure, sheep manure, compost along with cowdung, dry leaf litter and green manure. Their farm is surrounded by natural forests where they have access rights to fuelwood, green manure and other non-timber forest produce. Everywhere on their land the work of earthworms can be seen, which makes the land soft like bread.

Saraswathi Amma cultivates an 1/2 acre plot with arecanut and banana trees and 3 acres naturally forested area with pepper, jackfruit, cashew, oranges tamarind.

(Source:Communication with OIP)

B. BASAVARAJU

Santeshwara 573 131, Hassan Dist., Karnataka. Ph.: 08167-239260 Cell: 09611731967

In 1974 when I graduated in Science, I decided to take up agriculture as means of livelihood. My elder brother was of immediate help to me. It was he who inspired and motivated me to take up agriculture, instead of hunting for a government job. Today, I am self-sufficient and leading a happy life.

Although I had keen interest in agriculture and always curious to know more about various farm-practices, my brother, who had good knowledge of both traditional and modern-scientific farming, turned out be my friend, philosopher and guide. He had understood the dynamic relationship between soil, seeds, fertilisers, water, weather, ploughing techniques, solutions to pest attacks, crop diseases and most related aspects of farming. I was deeply involved in his experiments using modern implements and water management techniques, which resulted in improving farm productivity.

By 1983, I had acquired reasonably sufficient knowledge about agriculture. Impressed with my knowledge, my brother strongly felt that I could be a successful farmer if I continued with agriculture. The 6 acres of land which he handed over to me to develop independently then, turned out to be my 'karma bhoomi' and thereby, opened a new chapter in my life.

Initially, I started with traditional annual crops like ragi, paddy, avare, alsande, oilseeds and chilies and increased their productivity. My experiments helped me further improve productivity and annual yields to the extent of creating a record by harvesting yield of 54.2 quintals of ragi in one hectare of land. Subsequently, I was attracted to horticulture and the new practices in organic farming and developed a portion of land and started raising various crops. Today, there are coconut, arecanut, banana, coffee, beetle leaves, castor, ginger, and fruits. I am also raising vegetables for personal consumption. Several other plants and trees such as sandal wood and drumstick have been raised around the boundary of this 6-acre farm.

All these crops are high-yielding and of good quality and disease-free. I have developed a few natural solutions to keep crops free from disease. For example: pepper affected with yellow leaf spot disease, betel affected with black leaf spot and areca-nut affected by small leaf occurrence are treated with Kasaya. This is a solution prepared from various combinations of the urine and dung of various domestic and semi domestic animals and weeds, neem, pongamia seeds, honge, lantana, thungade, vishampuri, fruits of banyan, hatti, goni, peepul mixed with water.

I have used natural methods to ward of pest attacks. The fruit trees are now home to several bird species. I have tamed 8 owls that live freely on the farm and play a major role in controlling rodent population and also guard the farm against intruders by night by screeching in unison.

The farm has rainwater harvesting and drip-irrigation systems to ensure water economy and management.

Today, I am self-sufficient and self-reliant having a good farm and a happy family.

B Basavaraju's work has been recognised with:

National level recognition for 'organic farming' in 1996

Best Farmer award in 2000

NIF Award in 2001

Honoured with 'Best Farmer' award by University of Agricultural Sciences, Bangalore in 2002

'Karnatakada Shreshta Udyami' and 'Parivarthak' award by Z-Kannada TV in 2007

State-level G.Made Gowda Pratisthan award in 2008

(Source: Communication with OIP)

SHEKAR G.R.

Gulahallipura, Bettahallimatha P.O., Kunigal Taluka, Tumkur District, Karnataka.

On a five acre plot of land, in a drought prone area, Shakar cultivates crops using organic farming practices only. He says that at one time, for about 2 or 3 years, he did some chemical farming, but was not satisfied with the results and returned immediately to organic farming.

He depends entirely on the rains for cultivation on this land and has selected varieties of crops which are suitable to drought conditions. He grows mainly paddy, ragi and lentils. Farming is possible from June to December only. Half an acre of land has been reserved for cattle grazing.

Once every three years he collects about 300 cartloads of silt from a large public tank next to his farm, and together with cattle manure he spreads this over the fields. This is the only nutrition he is able to provide to the land. This practice has been followed by his forefathers as well. No one else wants the silt, so he uses it freely.

He also has another plot of half an acre which is irrigated with water that he borrows from his brother's tube well and there he grows areca nut, banana, ginger, turmeric and vegetables.

Most of what is grown on his farm is for family consumption. The excess is sold. He is very contented in this

profession which brings him peace and satisfaction.

(Source: Communication with OIP)

HARISH ACHARYA

37/1, Acharya Farm, Kadokola, Mysore 571 311, Karnataka. Ph: 0821 -2596334 Cell: 09886420907

Harish Acharya farms on 4.25 acres of land that he owns and another 6 acres that he looks after. His main crop is coconut-600 palms and areca-650 trees. Intermixed, he grows turmeric on one acre, 500 banana and vegetables. The beetle-leaves that he was previously growing had to be taken off the farm because of intense snail infestation. He now has added avocado, orange and sweet lime trees to the farm. There are three cattle heads on the farm. Milk is processed into butter and ghee for sale.

Harish holds a diploma in electronics but decided to become a full time farmer instead. For the past seven years he has been involved in organic farming. He follows all the well known organic farming practices including intercropping, mulching, vermi-composting, the use of panchagavya, etc. Since the last eight years he has been getting some profits from the farm.

The coconut yield is 35,000 nuts per annum and areca trees yield about 20 quintals annually. A part of the coconut crop is sold directly to the market and some is processed as copra, sweetmeats, etc. Most of the produce is sold through Nesara, a store dedicated to the exclusive sale of organic produce in Mysore.

(Source: Teleinterview with OIP)

RAMESH S. KIKKERI

163, 17th Main, 4th Cross, J.P.Nagar, E Block, II Stage, Mysore 570 008, Karnataka.

On just over an acre of land Ramesh grows a variety of trees and plants including coconut, areca nut, pepper, banana and vegetables. The coconut is processed into oil for sale. Banana and areca nut, which are on the verge of yield, will also be sold. The other crops are for personal consumption. Ramesh is technically trained but about eight years ago decided to start farming instead. He began in 1994 by buying a farm plot instead of buying a flat.

Initially on the advice of the horticulture department he used fertilizers but was fortunate to come in contact with some organic farmers and after visiting their farms he switched over to organic farming. He has stayed with this practice ever since. Besides finding organic farming eco-friendly, he saw that it also reduces the need for external inputs and makes the farmer self sufficient.

He practices in-situ manuring of the crops. There are several hundred micro-pits dug around the trees into which he plants a host plant like gliricidia from which he can get green cuttings which are then deposited into the same pit. He has also planted a variety of trees like meliadubia, neem, subabul, silver oak etc. as a sunscreen on the western side and uses their leaves too as green manure for his crops. He has a few cattle and adds their dung to the green manure in the pits.

These micro pits are his rainwater harvesting system. The open pit-wells are charged with water and so the plants get moisture. There is a dense canopy all over the farm and there is very good ground cover too so there is no loss of water. All this is sufficient to ensure that the crop is good.

He does nothing much about pests attacks. Even if there are green caterpillars which eat some plants he feels they contribute to the farm with their manure. If the pest problem persists he just stops growing that crop for sometime and switches to something else. That takes care of the problem quite effectively.

Ramesh doesn't have much outside help and hence has to keep the farm work to the minimum. But that he feels is as nature intended it to be. We should not have to work too hard transporting things from one side to another, driving away pests etc. Nature will take care of these things on her own.

(Source: Communication with OIP)

SUMANGALA VEERABHADRAPPA

Vasundara Farm, B.G. Kere-577 529, Chitradurga District, Karnataka.

Sumangala is an enterprising farmer who together with her family and a large labour force of around 30 persons has been farming since 1967. The quest for water has been a primary concern and presently the farm has six working bore-wells after making seventy attempts to strike a good water sources. The farm also gets water from a lake 4 to 5 kms away by private pipeline. All this has meant a lot of effort. But she proudly claims, there is no farm as green as hers for a hundred miles around.

A wide variety of crops are cultivated on the farm. Coconut and tamarind are both grown on a large scale. The orchard consists of bananas, chickoo, papaya and other fruits. Besides this, they are also involved in sericulture and mulberry cultivation. Fodder crops and grasses, to feed the 30 odd head of dairy cattle are also grown. To top it all, bee-keeping helps increase cross-pollination on the farm.

Sumangala sells coconuts directly or as copra to people. The cocoons from sericulture also fetch good money, as do sale of tamarind and fruit from the orchard. The farm also markets saplings of various flowering trees and

manufactures 'neera' – derived from coconut trees which is of medicinal value. She has regular customers and doesn't depend on the open market for selling the farm produce. The farm is fully cultivated and there is no scope to introduce anything new.

She doesn't see pests as a serious problem and feels that any pest problem can be dealt with using traditional methods. She does a lot of vermicomposting and mulching and uses panchagavya. The farm is fully organic, except for mulberry cultivation where they still use some chemical fertilizer. But they do not use pesticides at all and they never use either chemical fertilizers or pesticides for food crops. She takes care to plant trees that will prevent soil erosion, give leaf-cover and attract birds and bees, all around the farm.

Sumangala is presently involved with a women's group which processes food, makes jams and other dried food products for self-reliance. A progressive farmer, involved in the women farmers' movement, she has been honoured by several organizations in the past. Sumangala has received various awards from the Government of Karnataka for her innovative methods in sericulture. She has received the prestigious 'Seth Balder' award for her dissertation on sericulture. Every year many students receive training under her care and are guided in silkworm rearing. A savvy woman farmer indeed, way ahead of her times.

(Source: Communication with OIP)

RASHMI SAMAK

806, 5th Cross, IV Block, Koramangala, Bangalore-560 034 . Phone: 080-25506010

Rashmi worked in computer software and earned enough to buy a plot of land of four acres, in order to do what she wanted: grow healthy food for herself and her family. Later she bought another four acres and now owns an eight acre farmland, in a rain-fed area, on which they grow rice, a variety of lentils, mustard, chillies, groundnut and vegetables. What is not consumed is sold. Many families are interested in organic produce and she has some regular customers who readily buy her weekly hampers of mixed vegetables.

Not all the land is cultivated, as part of it is hilly and rocky. They did the terracing themselves but for daily farm work, they have employed two workers. They prepare vermi-compost and have tried out panchagavya for the first time this year. Pest problems come and go and if the pest problem is small they just let it be. Initially farmers in the area laughed when they found that she wasn't willing to use chemical fertilizers or pesticides and they said she wouldn't survive at all. But now they think again and ask questions about how things are done, the organic way.

(Source: Communication with OIP)

MAMATA D. & ANAND A.S.

Chitrakoota, No. 14, II Block, I Stage, I Cross, Vinobha Nagar, Shimoga City 577 204 Karnataka. Ph: 08182-248037

Mamata and Anand's farm is in Sagat Taluka of Shimoga District. On their eight acres, rain-fed land, they have 250 amala, 50 jamun and 20 Terminalia chebula trees, ginger, turmeric, green gram and some vegetables. Recently they have planted mango, chickoo and kokum. On the borders they have 200 different jackfruit varieties. Amala is their main crop. A married couple, who work on the farm and visit every two or three days, are their permanent employees.

Once the monsoons are over, water from an open well is used. They don't want to use tube wells, as they believe, it is not good practice. Every effort is made to harvest rainwater fully in their fields, through bunds, trenches and by allowing termite mounds on their land, which absorb enormous quantities of water.

All the amala is ayurvedically processed into chavanprakash and amala wine. This value added product is sold directly to the consumer. The processing of amala is done strictly as per the classical texts and no chemical preservatives are used. ISKON farm in Bangalore purchases substantial quantities of their products.

They give free training to farmers who grow amala, with the intention of promoting indigenous varieties of amala. Their chavanprakash has been tested with other varieties and they say that it has more vitamin C as compared with the others. They attribute this to the care they take while processing.

No chemicals have been used since they purchased the farm eight years ago. They use composting, mulching and the spraying of cow's urine as techniques of organic farming. They use solar power as their energy source and not electricity. For lifting water from the wells they use the animal/manually operated mechanical pump.

Anand is a key member of Krishi Prayog Parivar, an NGO spreading the message of organic farming in Karnataka.

(Source: Communication with OIP)

SAHAJA SAMRUDHA

'Nandana', No. 7, 2nd cross, 7th Main, Sulthanpalya, Bangalore 560 032. Ph: 080-22715744 Cell: 9880862058, email: sahasamrudha@gmail.com, website: sahasamrudha.org

Contact: Krishna Prasad G.

Sahaja Samrudha (SS) has been recently registered as a trust, however it has been active in networking with organic farmers and groups working with farmers since 2000. The aim was to bring organic farmers together. SS has around 200 members of which about 40 are active. Every two months the group meets and shares experiences in organic

farming. They also organize workshops to help farmers acquaint themselves with new techniques. So far they have organized workshops on biodynamic agriculture, botanical pest management, crop improvement, tube well recharge and nutrient management. SS also organizes exposure visits.

Its activities have spread to conservation of biodiversity, standardization of sustainable farming techniques, conservation of the indigenous cattle breed, 'Hallikar' of Karnataka. Spreading legume cultivation knowledge, helping farmers find markets for their produce, etc.

Many farmers are doing innovative work on their farms, but this is not widely known because they rarely document their knowledge and experiences. Providing technical inputs, encouraging experimentation and helping to document their findings helps farmers become 'peoples' scientists' facilitating wider dissemination of information on innovations. Based on this premise, SS has carried out extensive documentation of farm practices.

The result of this interaction among farmers and providing them access to information is that the farmers have become more innovative and creative. One of their members, Lingamadaiah, developed a paddy variety 'Mysore Mallige' for which he got the 1st Prize in the National Innovation Crop Improvement section. Three members were awarded Srishti Sanman: Krishna Prasad for initiating the organization, Ayyappa Masage for rainwater recharge of tube wells and Anusuya Sharma for terrace gardening.

The organization collaborates with government departments to spread the message of organic farming. It even has some scientists from the Agricultural Department as its members and they are very active in promoting organic farming.

SS has undertaken an organic group certification programme with internal control system certified by IMO, a Swiss agency.

SS believes that organically grown food should not be an elitist diet only but must become food for all. It should be affordable for the average citizen while providing better returns for the farmer.

Publications:

10 Steps Towards Organic Farming available in English and Kannada.

'SRI' Madagaskar way of rice cultivation.

'Shatasrungada Salinalli...' Collection of articles on organic farming.

Velvet beans – Magic Plant

Tadrupi kadu – Introduction to analog forestry

Savyava drudikarana – Organic certification manual

Seeds of Change – News Letter

(Source: Communication with OIP)

N. MRUTUNGA

Coordinator, Siri Samruddi Balaga, C. Nandihalli Post Office, Gubbi Taluk 572 117, Tumkur District. Cell: 09448970967

Mrutunga has a 15 acre farm on which he does mixed farming, with multi-storey cropping. He grows coconut, areca nut, banana, cocoa, pepper and cardamom. He also grows field crops such as paddy, ragi and groundnut. Recently he started cultivating vanilla on a small scale. His farm has been totally organic for the past 10 years but even earlier he had not used chemicals in a big way.

The farm has 3 bore wells and plenty of water but Mrutunga has still gone in for micro sprinkler irrigation, in order to save water.

All agricultural waste is recycled and is used as mulch to cover the entire farm. Of special significance and interest is his use of a weed named 'Gauri' for mulching, thereby converting a problem into an ally. The weed forms a thick mat over the entire area and thus conserves soil and water. Now farmers from other farms come and take the weed from his farm, to use in their farms! For his innovation in using this weed as an organic farming technique, his name has been recommended to the National Innovative Foundation for an award.

Mrutunga is the coordinator of Siri Samruddi Balaga (SSB) for Tumkur District. SSB emphasizes sustainable agriculture. It has over 300 members who meet every month, in any one of the members' farms, to discuss matters of common interest. The highlight of each meeting is the introduction of any new botanical plant pesticide that any of the members have discovered or the sharing of any innovative ideas. The association also invites resource persons to give them information on topics such as rain water harvesting, bore-well recharging and soil and water conservation activities. Once every 6 months they conduct study tours.

SSB has already conducted 87 meetings so far (Sept. 2008) in all the talukas of Tumkur District. Sometimes even MPs, MLAs and district authorities participate in their meetings, even though they are not specially invited. Siri Samruddi Balaga has meticulously documented all its activities and insights gathered from their farmer meetings and are available for anyone to wishes to visit them.

(Source: Teleinterview with OIP)

G. VIJAYAKUMAR

Sri Balaji Farm, Alur Village, Bangalore (North) 562 123, Bangalore District, Karnataka.

Phone: 080-23716866

In 1980, at the age of 17, Vijayakumar left the city of Bangalore and returned to his native village in Alur to start farming. Ever since his childhood, he had been interested in nature. Despite resistance from his parents he had reared wild birds and other small animals such as rabbits in his home.

Having opted to go in for agriculture, to start with, for three or four years, on the advice of local villagers, he practised traditional farming. Then scientists and staff from the Department of Agriculture converted him to chemical farming. The yield was higher and the growth of the plants was good immediately after the change. Gradually however, the yields began to decrease, pests and diseases became visible and expenses began to rise.

One day one of his labourers who had not taken adequate precaution while spraying pesticide, inhaled some of it and became so seriously ill that he was on the verge of death; somehow after rushing him to hospital his life was saved. This had a lasting impact on Vijaykumar who realized that chemical farming was not good.

Around this time NGOs like ICRA and the Green Foundation were giving training programmes on organic farming and to his surprise the same agricultural scientists who had once taught him chemical farming seemed to have been converted and now offered advice on organic farming! So after 8-10 years of doing chemical farming he turned full circle back to organic farming. Now he is often called to train others as well.

On his 25 acre farm Vijaykumar grows cereals, pulses, vegetables, fruits, nuts, oilseeds and medicinal and aromatic herbs. He practises integrated farming. Believing that, as a farmer, he should know everything, he has through self-acquired knowledge, done everything from rearing sheep, keeping poultry and managing a dairy, to fisheries, sericulture, apiculture, rabbit farming and piggery.

His main interest is the conservation of seeds. He conserves about 18 indigenous varieties of paddy seeds, 6-8 varieties of ragi, four varieties of brinjal, 12 varieties of chillies, three varieties of horse-gram and three varieties of castor. For growing vegetables he uses only local seeds. To keep the seeds from the farm safe they are stored in earthen pots, gunny bags and bamboo or straw baskets. They are sometimes treated with herbal extracts of neem, vitex, tobacco or salt. Grains are also mixed with useful leaves, or oil extracts, ash etc. for their protection.

For the nutritional management of plants which he feels is very important, he uses various composts such as vermicompost, biodynamic agri-compost, EM compost, biogas slurry, oil cakes, tank silt and poultry manure. The Japanese method of composting is also practised. He also prepares vermiwash, EM liquid and other liquid manures himself which are incorporated into the soil. Different composts are separately maintained and not clubbed together. Growth promoters like panchagavya and amrut pani are also used.

Vijaykumar believes that farming practices so far have concentrated on understanding the upper world but people do not have much knowledge of the lower world i.e. micro-organisms, earthworms, termites, microbes, etc. He is therefore focussing his efforts on learning about this fascinating aspect.

This farmer believes that by protecting predators and allowing all of them their own space, pest problems can be taken care of as they feed on each other. He uses locally available leaves from oil producing plants, which are extremely useful for such preparations, to make herbal pesticides. He also adds garlic, ginger, aloe, clyendron, custard apple leaves, calotropis, neem seed and vitex negunda. These are ground separately and then mixed in an open container. The preparation is kept for 7 days, the mixture stirred twice a day. Thereafter it is filtered and is ready for spraying or applying on any plant. Preparations from tobacco, agave and cow urine are also used.

Crop rotation is practised as well as techniques such as deep ploughing, mixed cropping, multistoried cropping and inter-cropping contribute to the success of his organic farming.

Now that he is a farmer, fulfilling his childhood interest in nature, he is happier following the path of his own choice and feels that he has contributed to knowledge about organic farming. Every farmer should continually experiment in order to find the most suitable way for farming his land, he says.

Vijaykumar is married with 3 children. He deliberately selected a rural woman Rathamma (the name translates as 'earth') as his wife. Both he and his wife work on the farm. When he was doing chemical farming he needed 15-20 labourers, but now 4 labourers are sufficient. His children's names – Nisargadarshan (natural view), Shobhanisargi (natural beauty) and Vedanthasavayou (organic knowledge) – all reflect his love for nature.

(Source: Communication with OIP)

K.R.NEELAKANTA MURTHY

Odekar Farms, Nandhihalli, Kabbigere Post, Via Thavinakere - 572 138, Tumkur District, Karnataka. Ph: 08138-239029

Neelakanta Murthy was the manager of a bank when he decided to resign in 1994 and do farming instead. His family had purchased 50 acres of land in a deserted area, of which 30 acres is cultivable land. The rest comprises some forest land and a 2 acre pond and a small stream both of which are rain fed. When they bought the farmland, the coconut and mango trees on the plot were in a pitiable condition, as the whole area was uncared for.

Since then, Neelakanta has transformed the area, covering the land alongside the stream with bamboo, sandalwood

and teak and reviving the coconut and horticultural plantation. Initially, he was not completely organic, but neither was he using much chemicals. He had been applying a lot of farm manure, buying the pig/sheep manure from other places.

It was in 1996 that, as an experiment, he stopped tilling 4 acres but cultivated it nevertheless. Since he did not find any difference in the tilled land and the untilled 4 acre plot, he decided not to till the whole area. He started rearing cows and buffaloes and he now has around 10 animals.

Twenty acres of the land are under coconut plantation. Cocoa (6 acres) and vanilla (4 acres) are interspersed. In the rest of the area he cultivates pulses, vegetables, etc. There is a shortage of water on the farm, both the stream and pond being rain-fed. Therefore he has had to concentrate on water conservation methods, such as the digging of trenches and the building of bunds and percolation tanks as well as check dams for the streams. All this has helped to recharge the bore-wells.

He has planted forest plants of different species in the trenches and even though, for the past couple of years, there has been very little rain, more than 95% of the plants have survived. He planted around 3000 saplings in 2002. He has a collection of around 2000 medicinal plants, which he has not only identified but also utilizes in various preparations.

Around 30 bee boxes have been set up for practising apiculture, the honey being sold locally at Rs.150/kg. After buying cattle Neelakanta constructed a gobar gas plant and now has gas for cooking as well as slurry for vermi-composting. He does not sell any vermi-compost generated on the farm but he sells earthworms.

For green manure, he has grown more than 1000 pongamia plants and around 700 neem plants. His main sales come from coconut sold as copra, as that fetches a better price.

Utilizing the weeds that grow on his farm along with the medicinal plants, his wife Anitha manufactures herbal oils at home. She also prepares balms for general pains, which are sold locally. Around 10-15 litres of herbal oil are sold every month.

Neelakanta and Anitha also give training to self-help groups. The trainees are directed to them by Government departments or NGOs. A small fee is normally charged, but for local people and those who cannot afford it, the training is free. Anitha trains the participants on the manufacture of oils, balms, etc. and Neelakanta lectures on organic farming practices.

An M.Sc. in Agriculture, Neelakanta feels that he did not require to use the knowledge that he gained from his formal education. However, his education has enabled him to methodically analyze his observations, to identify plants and to communicate his findings.

(Source: Communication with OIP)

MONICA SHARMA

49, 2nd Stage, 5th Main, Postal Colony, Sanjayanagar, Bangalore 560 094, Karnataka. Ph: 080 – 3415664 / 8563890
Aralu Mallige Grama, Doddaballapur Taluka, Bangalore

Monica Sharma owns a 5.5 acre farm at Aralumallige Village, Doddaballapura Taluka, in Bangalore District. An M.Sc. in Applied Botany she has worked as a research associate on a biodiversity project in the UAS, Bangalore and has also worked in some reputed hybrid seed companies. She is keenly interested in cultivation and the management of the farm, although the day to day activities are presently being handled by her father. The whole family is involved as farm-hands during the time of planting and harvesting.

The farm was purchased about seven years ago and has been run on organic lines right from the start. It has a variety of horticultural crops like mango, chikoo, pomegranate, guava and commercially viable trees like teak and silver oak. Many varieties of trees are being planted in one small area in an attempt to raise a forest. The main objective is to create as much diversity as possible. On an experimental basis, vanilla, coffee and some spices and fruit trees are grown. Field crops like paddy, ragi, bajra, wheat and pulses like red, green and black grams, beans of many varieties, vegetables and greens are being cultivated, mostly for the family's own consumption. The yield being moderate, very little surplus remains for selling to consumers who are aware and request for organic food. A good number of people, including Monica's parents and the families of the workers (a total of about 20 persons), get a fair share of their food from this farm.

There is a small dairy of four cows – two indigenous and two Jerseys. The morning milk is sold to the KMF dairy cooperative and the evening milk kept for consumption. A gobar gas plant is being constructed. Botanical pest and insect repellants made on the farm and locally available manure, compost and vermicompost are being used.

Mrs. Anusuya S. Sharma, Monica's mother, apart from being involved with the farming, is also a keen organic gardener. She is well known for the variety of medicinal plants, fruits, flowers and vegetables she grows, all in pots and bags on the terrace of her home in urban Bangalore. She makes her own compost using kitchen wastes, dry leaves and cow dung. Anusuya has received the Srishti Sanman award from the National Innovation Foundation in April 2003, for her achievements in Urban Terrace Gardening.

(Source: Communication with OIP)

No. 29/3 B, Pipeline Road, Mahadeshwara Nagar, Vishwaneedam P.O., Bangalore 560 091. Ph: 080-3581449

On a five and half acre farm in Tumkur, purchased in 1991, Krishnamurthy grows chickoo (cricket ball variety) and Ratnagiri Alphonso mangoes for commercial sale. He also grows vegetables and grain for personal consumption. Recently he added organically grown Steevea to his farm.

Krishnamurthy purchased the farm land in 1991 but began farming around 1996. He has never used chemicals during the last eight years of farming. The water supply is reasonable but because of power shortages and irregular availability, the bore wells have to be worked at odd hours.

To improve the quality of produce from the farm he uses sheep and cattle manure, vermicomposting, mulching and panchagavya. He also prepares a variety of concoctions for the healthy growth of the plants such as: Amruta sanjivini (a mixture of lime juice, eggs and jaggery), fish-jaggery solutions or coconut-buttermilk solutions. These are practices based on traditional knowledge, which today are unfortunately forgotten but which he is hoping to revive. He sells the produce from his farm directly to customers who have been purchasing from him for a long time. There is enough demand for the produce at present.

(Source: Communication with OIP)

GOPALKRISHNA G NAYAK

Brindavan Estate, PO Ekkambi – 581358, Sirsi Taluka, Uttara Kanada District, Karnataka, Ph: 08384-489835

Gopalkrishna's farm is located 15 km from Sirsi on the Sirsi-Hubli road, in Sirsi Taluka, Uttar Karnada District. He has been farming for the past eight years on his farm of seven acres. Although he comes from a farming family, he had previously been looking after the rice-mill and grocery store belonging to the family.

The main crop on the farm is areca-nut. Cardamom and pepper are also grown. Besides this, fruits of different varieties such as bananas, mangoes, sapotas, coconut and cashew also grow on the farm. Six years ago, vanilla was also planted which has begun to yield since the past 3 years. The farm is mostly on uplands but despite this he plans to try and cultivate paddy and sugarcane in the future.

From the beginning Gopalkrishna has only been doing traditional farming avoiding any chemical usage. Cow-dung manure, green manure, biodynamic manure and compost are the main inputs for the farm. His two cows supply some of the requirement and the rest is purchased. Organic farming has not been difficult in this well forested belt. Trees on the farm itself are a good source of green manure. Pests have not been a big problem but occasionally he has used neem oil and other organic extracts as repellants.

The produce of the farm is marketed in Sirsi itself. Areca-nut, pepper, cardamom, mangoes, banana and vanilla are being sold. Vanilla is presently fetching very good returns. He feels that a separate market for organically grown foods would benefit farmers like him. Besides this, further dissemination of knowledge on what to use for specific diseases and pests would be beneficial to organic farmers.

Gopalkrishna is fully satisfied with organic farming. He feels that its benefits, such as saving of water, reduced incidence of diseases and pests and a harvest of tasty and pure foods are sufficient to motivate any farmer to opt for this form of farming.

(Source: Communication with OIP)

UDAY KUMAR V DESAI

PO Rudrapur, (near Murgod Town), Taluka Soundatti, District Belgaum – 591 119.

Uday Kumar is from a farming family and has been farming for the last 25 years. Four acres of his 25 acres farm is 100 percent organic and 21 acres 70 percent organic.

The crops that he has been growing have changed over time. Earlier he had grown green-gram and groundnut, jowar, wheat, bengal-gram, sunflower and cotton under rain-fed dry-land regimes. Now following three continuous drought years, the choice of crops is sugarcane, maize, cotton, vegetables, sunflower etc., when irrigation is possible. Red banana, papaya and drumstick are grown on a 2 acre field and vegetables on one acre, all of which are organic.

Five years earlier, Uday Kumar practised intensive chemical farming. At that time his soil was fertile and soft and combined with good rains he had managed to get an extremely productive harvest. But later the soil lost its fertility and nutrients, became hard and impervious.

Due to the sound of power sprayers used in chemical farming, Uday Kumar lost his hearing to an extent of 70 percent. Reduced resistance to ill-health and skin and food allergies also manifested and he lost all interest in farming for some time. After attending an organic farming workshop conducted by ICRA, he decided to shift to organic farming.

During the first three years of conversion, chemicals were completely stopped and only farm-yard-manure was used. Following that, every week cow dung and urine, biomass and green leaves slurry were applied. Panchagavya was also used. Uday Kumar has cows, oxen and buffaloes. He says it is not difficult to practise organic farming but it is necessary to have some form of irrigation. He also feels that organic farming protects the soil, helps reduce both water use and the need for labour

To control plant damage due to insects he prepares extracts from the leaves of bitter plants that even goats do not eat. Dilutions of these are sprayed on the plants. Besides this, natural predators have now multiplied and these automatically ensure a balance.

The produce of the farm is sold in Belgaum, Hubli and Mumbai but unfortunately not as high priced organic foods. Alternative markets for organically produced goods are required for this, he says.

The switch over to organic farming has restored the health of the land over a period of three years and it is rich in nutrients and soil fauna again. Earthworm activity has improved tremendously and the soil has softened once more. In a drought scenario the farm can be tended with reduced use of water as the water retention capacity of the earth has increased. But best of all, says this farmer, each one who has tasted the produce of the land has commented that they have never tasted such sweet fruits before.

(Source: Communication with OIP)

SRINIVASA NAIDU

Mayur Photo Studio, K.R. Extension, Chintamani Taluka, Kolar District, Karnataka – 563125. Ph: 08154-451431 (O) / 08154-454068 (R)

Srinivasa's farm is located in Subbarayanapete village, Ambajidurga Hobli in Chintamani taluka about 5 kms from Chintamani town along the Sidlagatta road. He has been farming for the last 20 years on his 8 acres and 26 guntas of dry land.

On this farm he grows a mixed crop of ragi, beans, mustard, red-gram, groundnut and cow-pea in rotation. In times of drought, when rain fails, till September he chooses to grow horse-gram. Surplus crop is marketed in the local markets itself.

Since the beginning, Srinivasa has been involved in traditional methods of farming and he has never resorted to chemical fertilizers, pesticides or weedicides. Since he doesn't have any livestock of his own, he purchases farm-yard-manure and uses it in combination with tank bed silt and neem-cake.

He has generally not had a serious pest problem. However, once when his groundnut crop was infected with collar rot disease, he resorted to a change in the crop pattern by cultivating horse-gram next. This helped stem the spread of the disease.

Organic farming, he says, keeps the food chain of the farm intact, maintains soil health and is sustainable. Organic farming is not difficult if one has a pair of oxen, some milch cows and minimal water supply.

(Source: Communication with OIP)

B K NAGANNA

S/O Karenagappa, Krushikasamajada Upadhyaksharu, Bevinahally – 572135, Sira Taluka, Tumkur District, Karnataka.

Naganna grows vegetables such as brinjal, tomato, chilly, watermelon and onions; food grains like ragi, paddy and jowar and commercial crops such as coconut, areca-nut, ground-nut, banana and vanilla on his farm located in Bevinahally in Tumkur district.

Born into a family of farmers he has been farming for the last 25 years. Having concluded that organic farming is less expensive, requires only natural inputs available on the farm itself, and is more remunerative, he switched over to farming organically around ten years ago.

He feels that it was relatively simple for him to practise organic farming as dung from his cattle and the leaf and other plant litter that he gathers from his farm become no-cost inputs for composting. Naganna prepares a solution of panchagavya with leaf litter, cow-dung and urine. Apart from application of this to fertilize and protect his crops he also practises crop rotation which ensures that pests do not multiply beyond control. Apart from this, he also makes plant protectors from extracts of Honge bevu, Hekke, Uduve and other mixtures.

The surplus crop is sold in the local market but constant fluctuation of and inadequate prices are always a problem. Adequate infrastructure to market the produce of organic farms, he feels, is therefore necessary.

Naganna feels that it may not be entirely easy for small farmers to switch to organic farming as they would have to look outside of their land for manure and composting resources. It took six years for him to completely convert his farm to organic farming. He experienced a drop in the yield initially and this he feels may deter small farmers who may not be able to bear up with even small losses. Instead government promotion and backing is necessary to persuade farmers to switch to organic farming and to succeed both in the realm of farming as well as marketing the organic produce.

(Source: Communication with OIP)

R G TUKKAPPAVAR

Vartak Galli, Jamkhandi Taluka, District Bagalkot, Karnataka State – 587301. Ph: 08353-322605 Cell: 9448347413
Trained in law, Tukkappavar has a 40 acre farm in Mareguddi village in Jamkhandi taluk of Bagalkot district.

Coming from a farming family, he has been farming for twenty years but has shifted to organic farming just a year ago. He says that chemical farming is laborious and there are less margins of profit. Besides this, chemical farming makes the land barren. On his farm he grows sugarcane, bananas, coconut, sunflower, ground-nuts, maize, wheat and lemon.

This farmer does not farm all the land each year but allows portions of it to remain fallow, in rotation. He keeps a few bullocks and cows for use. Since he has been doing organic farming only for a short time he is not expecting to get good results very quickly.

It is taking time and effort to change to organic farming and he expects better yield only after three years of farming in this manner. He feels that the vagaries of nature, that is the weather, and no uniform methods or solutions to various problems of farming, makes it difficult to do organic farming. However because soil fertility is maintained and because it is less laborious and less expensive he feels it is advantageous to go in for this type of farming. (Source: Communication with OIP)

M LINGAMADAI AH

Nisarga, PO Aralassandra Village, Channapatna Taluka, Bangalore District – 562 138, Karnataka. Ph: 080-7254560, 7264560

Lingamadaiah, hailing from a family of farmers, has been farming for the past 25 years. He has an eight hectare plot on which he grows horticultural trees such as mangoes, bananas and sapotas and agricultural crops such as paddy, ragi, horse-gram, dals, etc.

Until the year 1994 he had been farming with the aid of chemicals. In that year a farmer from the Philippines gave him some grains of paddy to develop in an organic way. Eventually in addition to developing the paddy, Lingamadaiah converted the entire farm into an exclusively organic farm. He now feels that this way of farming is essential to preserve the health of the land, air and water

He uses green leaves for mulching and biomass and other farm 'waste' both for mulching as well as preparation of compost. The inputs in general are tank silt, farm yard and compost manure, green leaves etc. He has a few cows. Organic farming is not so difficult, he says, but it is not easy to convince others.

Changing over to organic farming takes about three years: during this period of conversion one has to give the farm more than normal amounts of organic inputs and the yield too drops. After this period it is possible to reduce the inputs. It is important that the inputs that are required for organic farming are generated on one's own land in a self-supporting cycle.

The large numbers of birds that flock to his farm help in keeping the population of insect pests low. To control flies and mites he uses a spray of neem-seed paste mixed with diluted cow urine.

Overall, the effect is that pest incidence is reduced and soil is vastly improved resulting in the increase of soil fauna such as earthworms and other useful life-forms. Every year the soil is getting softer and softer and the consumption of water has reduced with the increased water retaining capacity of the soil.

Mangoes sapotas, bananas etc. are marketed, but the prices are not as good as they should be. Lingamadaiah feels that it is important to have a separate market for organically produced foods and for some organization to take up the cause of organic farmers.

(Source: Communication with OIP)

RAMAKRISHNA

S/O Motegowda alias Narsegowda, Vitnena Halli Village, Aralalassandra Post, Channapatna Taluk, Bangalore District – 362138.

Despite stiff opposition from his father and brothers, Ramakrishna shifted to the organic mode of agriculture. On his farm he has planted many trees such as teak, silver-oak and other forest trees. Sapota, guava, pomegranate, vanilla and betel-leaf are also grown. An active and key member of the Sahaja Samrudha Samayana Krishikara Balaga of Bangalore district, he has been practising organic farming for the past ten years.

He only uses farm-yard manure, different oil cakes, green-leaf manure and other biomass available on his farm, for the purpose of enriching his soil. Pests are kept away through the spraying of cow's urine, neem oil and other such natural materials. To harness water and to capture the maximum precipitation, this farmer has built ponds, bunds and trenches on his land.

Realizing that the unlimited use of chemical fertilizers and pesticides, in the past, had made the soil useless and polluted the air and water of the area, he now wants to maintain the air and soil in a natural way, by doing organic farming and saving the earth for future generations.

(Source: Communication with OIP)

PATIL SHIVGANDA MALAGOUDA

Vidyanagar, Athani - 591 304 Dist. Belgaum, Karnataka. Cell: 9448432172

Patil's farm is located on the Athani-Masarapuppi road about 4 k.m. from Athani. Shri.S.M.Patil is a retired employee of the revenue department and took up organic farming after retirement. His ability to observe and self experiment have made him an exceptional farmer to emulate. Soon after retirement he took up agriculture full time on his 9 acres and 28 guntas land with the express purpose of organic farming and set himself to work, by learning from farm visits, workshops, literature and experimentation. Eight years down the line, today, his record horticulture produce and processing unit are fit feathers to be proudly sported on the organic farming movement's cap! Major crops grown on his farm are guava, sapota, lime, banana, mulberry, wheat, channa, chilly, onion, turmeric and all kinds of pulses. Annual income from the farm is 4-5 lakhs of which Rs. 30,000 to 40,000/- is debited to expenditure. Degraded land was reclaimed inch by inch with the whole family pitching in to create this highly productive organic farm. The farm is irrigated with bore well and sprincklers.

Shri. Patil uses jeev amrut, made from cowdung and cow urine, and uses EM and organic farm waste to prepare compost, using NADEP method. For preparing vermicompost he has built an organic waste digester on his farm which receives inputs of cowdung, sheep waste and crop wastes. The resultant liquid is applied to the crops along with the irrigation water.

The soils in his region have become alkaline and non-productive due to heavy irrigation. He is fortunate to have a farm which is situated in the dry region where the pests are relatively less. Whenever mild attacks are seen, he uses sprays prepared from cow urine, neem seeds, garlic and chillies.

All his neighbours practise chemical farming. However, some have now started to spray preparations made by him.

According to Shri. Patil, organic farming leads one towards a complete life. The objective of organic farming is not only bringing in sustainable agriculture practices but also a path for an individual's development towards completeness. His farm is certified by IMO.

(Source: Communication with OIP and P Babu)

PATIL VERMI FARM

'Shiva,' Behind Prasad Lodge, Gadag-582101, Karnataka. Phone: 08372-237536

(Contact person: R.S. Patil)

Patil Vermi Farm does large scale vermi-composting. It also manufactures for sale the 'No Waste Vermi Home Garbage Digester.'

'No Waste' contains four trays and a lid. The upper three trays are used to fill garbage one by one. The bottom tray collects the excess water that drains out from the garbage and it must be emptied periodically. The last but one tray contains earthworm culture. This tray must be filled with garbage first, then the next tray up and finally the top tray.

By the time the topmost tray is filled with garbage, the lower most tray will be converted into odourless fine vermicompost. Empty this and keep it on top, shifting the other two trays down. The system continuously turns garbage to vermicompost. This device is rat and mosquito proof. For ant problem use Laxman rekha. Being mounted on coaster balls, 'No Waste' can be shifted around the home easily. All organic kitchen waste, old newspapers, leaves etc. can be composted in 'No Waste'. Once a year painting the unit ensures greater durability.

Size: 18" x 16" x 24". Price: Rs. 2000 (Ex. Gadag).

(Source: Brochure)

K. M. KUMBAL

(Contact: ICRA, Bangalore)

K.M. Kumbal's farm is located at Atharga village of Indi Taluk, Bijapura District. Bijapura district is a drought prone area with temperatures in the range of 40 to 45 C and scanty rain fall of 300 to 450 mm per year. Majority of the farmers are small and marginal. The land having lost its fertility over time due to chemical inputs, farmers are now losing their interest to continue with farming.

K.M. Kumbal's farm is situated 4-5 kms away from the village. He is from the farming community and involved in farming since 1960s. Between four brothers they own 24 acres (18 acres irrigated and 6 dry) of land. He resides at his farm house. To the right of the farm is uncultivated land with dry grass and trenches with bunds to absorb every drop of water. A 800 tree pomegranate orchard is being readied. The farm has sericulture, lemon plantation and chalky (silk worm rearing house) rearing centre. To the left is a cattle shed with Gir breed cows, gobar gas tubs, a gobar gas operated flour mill and open sheds. The family and labour together work the farm. Water is fetched from a distance to meet irrigation needs.

The farm has always been organic and enjoys good soil health. Even the dry lands got good yields. During kharif they intercrop sajje, navane, ragi, groundnut, horsegram, greengram and jowar, maize, wheat in the rabi season. Lime is a major crop on 12 acres of land, sericulture on 6 acres and 'improved' banana on 1 acre. Soil and moisture conservation activities like land leveling in the dry land, bunding, silt application etc. are routine practice. They have applied 6"-8" of vermi compost for 16 acres of land, used plant residues as mulch and adopted drip irrigation. Every alternate year, each acre of land is applied with 10 tons of compost, one quintal of vermi compost. He is planning to

grow a pomegranate orchard in 3 acres of land, glyricidea and pongamia, seethaphal, bhilvapatre in 5 acres of land.

Lemon is the major crop in Indi taluka because of suitable soil and weather conditions. Lemon starts yielding after 6 years healthy 8 year old trees yield 5-6 thousand fruits per year, fruits are harvested twice in a week. The market place is Bijapur. The rate per 1000 fruits is Rs.400 and in the peak of summer rises to Rs. 1000. Organically grown lemon has better market, due to better keeping quality and juice content.

Sericulture farm is literally pampered with vermi compost and hence the soil is full of worms and very spongy. They harvest 7 crops in a year from July to February. Each crop, 400 eggs are purchased (CSR- Voltin and Kolar Gold varieties) from Chennapatna near Bangalore. The average expected yield for every 100 eggs is 65-75 kg. If all goes well, he gets 1.5 lakhs per year of which 30% is the expenditure. In spite of constraints of high temperature and leaf infections, the sericulture unit is a success. This is because of being closely monitored and pest and temperature management techniques have been standardised to suit local conditions.

Gobar gas generator:

Kumbal has 4 gobar gas tubs of 13X 6 ½ ft. standardised size. From using it initially, for domestic and limited lighting, in 2002, he was the first in Karnataka to adopt it to run a 7.5 H.P. generator to run a flour mill, chaff cutter, slurry mixer, water pump, etc., saving him Rs.1500 per month on electricity bills.

Cows:

The 50 cattle capacity shed is put to good use, dung and urine are used for preparing compost, bio-input solutions, farm manure and for the gas plant. Fodder is farm generated. He gets 5-6 kg dung and 8 lts of milk from each cow per day.

District Organic Farmers Sangha:

Kumbal has organized farmers into a formal OFAI group with 78 members. Regular farmer meetings for knowledge sharing and spreading the organic message are held alongside technical inputs from experts. Farm visits are also undertaken.

(Source: P Babu)

KEMPANNA

(Contact: ICRA, Bangalore)

Kempanna has two acres of dry land and has taken another two on lease. He has no formal schooling and started working on a farm since the age of eight. Major crops grown are jowar and ragi. Cotton in combination with horse gram and castor are sown during kharif. A self taught expert in intercultural cropping, he has improved on his father's sowing patterns and innovated his own, thus producing better yields and putting in place water flow arresting systems on his farm. He is able to prepare twenty cartloads of compost on farm using dung of two local breed cows and crop waste from his farm and surroundings. He has perfected a technique of getting higher yield by protecting secondary roots. This combination of applying liberal quantities of farm yard manure, protecting secondary roots and water retention on farm has resulted in yields of 40-45 quintals from two acres while his neighbours' harvests stand at 10 to 20 quintals from 3 acres.

Kempanna is a keen learner, and says that since farming is the only thing he knows, he would like to fine tune his skill all the time, learning and experimenting with new innovations. He along with twenty other farmers have formed a local group to discuss matters collectively on a regular basis.

(Source: P Babu)

SOMANATHA REDDY POORMA

(Contact: ICRA, Bangalore)

Somanath Reddy a land holding of 21 acres, partly irrigated. The source of water is a open well, major crops are red gram, black gram, green gram, jowar and paddy.

During his father's time, there was no use of chemical fertilisers on their farm. They started farming chemically about three to four decades ago and he farmed chemically for twenty five years before switching to organic to save himself and his farm from certain disaster. The farm has been fully organic for the past seven to eight years now. He practices crop rotation, mixed cropping, seed treatment, nutrient management, pest and disease management along with soil and water conservation methods.

Ten to fifteen quintals of vermicompost, silt, trichoderma, 25-50 kg of neem seed powder are mixed together and applied to the farm as bio nutrients. NPV, bio-digester, garlic and chilly extract and neem seed extract are used to control the pod borer in red gram.

Reddy the is State convenor of OFAI and is recipient of many awards. Krishi pandit award from Karnataka Government, ICAR award for best pigeon pea crop, the list goes on. Besides being an expert organic farmer, Reddy is an expert yoga teacher and devotes considerable time to teaching it to youth and to the general public.

(Source: P Babu)

GANAPATHY BANDU JADAV'S FAMILY FARM

(Contact: ICRA, Bangalore)

Late Shri Ganapathi's is a big joint family having 50 members. Starting with three acres, one cow and one buffalo twenty years ago, they now have 30 acres of land and 22 head of cattle. Water comes from river Krishna. The crops grown are sugarcane, sericulture, cereals, pulses, wheat, red gram, groundnut and bengalgram. The farm is family managed. Responsibilities (like sugarcane, sericulture, animal husbandry, maintenance of tractor) have been allocated to each person of the family. Concerned persons take necessary decisions and actions according to allocated responsibilities. They are convinced from returns that there is a good income in organic farming, if done properly. Much support for their activities has come not from Government but fellow organic farmers and especially from SM Patil.

Organic sugarcane:

Sugarcane is the major crop, cultivated on 10 acres of land. In normal practice, the spacing is 3 feet. On his farm, 2 rows of spacing for every 2 rows of sugarcane is followed, so as to allow for absorption of more sunlight, allowance for splitting and greater root strength. Sugarcane is intercropped with groundnut and pulse alternatively. Mulch comes from sugarcane leaves, and the intercrop remnants. Jeev amrut, vermicompost, vermiwash, digester solution and dung extract solution are applied at set intervals.

There is no separate market for organic sugarcane so they make jagerry which has a good market in Mysore, Shimoga, Bangalore, Hubli and places in Maharashtra.

Sericulture: Since 1984 he has practised sericulture and takes ten crops annually from his two plots of three acres, each time keeping 500 eggs and making a clean income of about Rs. 3,00,000 per year with two quintals of worm droppings and left over leaf litter as bonus.

Mulberry cultivation: V1 variety is cultivated. In the organic method, instead of ploughing, mulching is done by using organic waste. The spacing is 5x3 feet from row to row and from plant to plant 2x2. The crop is applied with 5 qtls of vermi compost, 200 lts of liquid spray and 60 lts (of jeevamrutha+vermi wash+EM mixture) mixed with 140 lts of water.

Ganapathy rears the cocoons in the hut and so far he has not faced any problems. He says, 'it needs sincere effort and discipline, time management, proper nourishment, maintaining of hygiene and temperature to get good yield and last but not the least, good quality of mulberry.'

(Source: P Babu)

VANASTREE - THE MALNAD FOREST GARDEN AND SEED KEEPERS COLLECTIVE

80/1, Asare, Vishal Nagar, Marathi Koppa, Sirsi 581 402, Karnataka. Ph: 08384-290404, Cell: 09480299200, Email: vanastree@gmail.com, Website: www.vanastree.org

(Contact person: Sunita Rao)

Vanastree is a voluntary endeavour, working with women in Sirsi and surrounding area to promote domestic and wild biodiversity in home gardens since 2001. It was registered as a trust only recently in June 2008. Sunita Rao is the founder trustee leading these efforts. Vanastree is associated with Kalpavriksh (Pune), ATREE (Bangalore), Prakruti (Sirsi), Sneha Kunja (Honnar), TEED (Yellapur) and affiliated to OFAI. Their activities include outreach, development, training, research, documentation and conservation oriented enterprises. They reach 500 gardeners and farmers directly in Sirsi and through other groups in neighbouring talukas.

Vanastree works through decentralised regional seed banks with each seed group saving specific local indigenous vegetable seed diversity. It is an all women initiative with male membership too.

The garden produce is used for home consumption, sold retail as fresh vegetables and excess is processed. All kinds of local vegetable varieties like amaranth, brinjal, okra, gourds, pumpkins, cucumbers (including the malnad maggaykai cucumber), coccinia (thondekai), various greens, beans, chillies, tubers like colocasia, dioscorea, amorphophallus, tumeric, ginger, mango-ginger; ground nut, maize, cow pea, urad dal, green gram dal, paddy, ragi, fruits and flowers are grown.

Though there is no permanent outlet yet, processed foods are sold locally, at melas and exhibitions. Holi colours from natural dyes are made once a year. Dry banana is made round the year and is in good demand locally.

Their other products and services are:

Seeds & saplings; seed packets; forest nursery: wild saplings

Traditional sweets & snacks: Nelli (amla) candy, kokum candy, jackfruit (halasu) chips, jackfruit papad (halsina hapla), dried jackfruit, sukkeli (dried banana chews), banana chips, todadevu, panchakajjaya, chakli/muruku, athrasa, karajikai, holigay, 7-cup burfi, wheat flour.

Traditional chutney & herbal powders: Chutney powder, flax chutney powder, wild curry leaf chutney powder, tamblipudi (various like nelli, brahmi, wild curry leaf, vilva, etc), kashaya pudu.

Traditional remedies: Nelli supari (gooseberry digestive and mouth freshener), nelli leha (gooseberry immunity

booster).

Spices & seasonings: Kokum: sun-dried rind, vatay (lakooch): hand pounded powder, bay leaf (dalchini yellay): whole shade-dried leaf, Malnad Needle chilies (sooji menasu): whole sun-dried chilies, cardamon (yallaki): whole sun-dried, clove (lavanga): whole sun-dried cloves, nutmeg (jaikai): whole sun-dried nut, mace (patre): whole sun-dried mace, pepper (kalumenasu): whole sun-dried pepper corns, turmeric (arishina): sun-dried milled powder, vanilla: whole sun-dried beans.

Preserves, pickles & juices: Nelli morabba, nelli jam, kokum juice, pineapple-ginger preserve, lemon pickle, mango pickle.

Dairy: Ghee

Honey bee products: Apiary honey, wild honey, beeswax balm.

Other products: Holi colours, vegetable paints, kumkum, herbal hair oil, massage oil

Crafts: Patchwork bags, kowdies (hand-sewn patchwork quilts), seed jewellery.

Services: Homestay, educational camps, internships.

Products are best sourced at the annual Malnad mela in Sirsi (first week of June) or at the annual exhibitions in Bangalore. They are in the process of being able to supply produce more regularly to outlets.

(Source: Communication with OIP)

MOJO PLANTATION

Galibeedu Post, PO Box 101, Madikeri 571 201, Karnataka. Ph: 08272-265636 Email: mojoplantation@gmail.com
(Contact: Dr. Sujata Goel)

The Mojo Plantation is a farm nurtured on ecological principles in the midst of the Western Ghats by two former research scientists (who left behind the race of urban living and academic research in search of a life in harmony with nature), and (their young daughter) Maya.

Mojo Plantation is located in one of the highest rainfall zones of Kodagu District which lies in the heart of the Western Ghats in Karnataka and is densely forested with native trees. While this environment places limitations on the types and quantities of crops we can grow it creates its own unique flavours which are reflected in the quality of our organic produce.

The most attractive feature of this area is that local crops such as cardamom and pepper (indigenous to the W. Ghats) and coffee (introduced) are grown under the shade of rain forest trees. Therefore, much of the biodiversity can be preserved. Most plantations in Kodagu are abundant with diverse species of trees, birds, reptiles, small mammals and a fascinating array of spiders, lepidopterans and insects. However, excessive use of fertilizers and toxic pesticides pose a serious threat to the biodiversity of this region and therefore it is all the more necessary to adopt sustainable agricultural practices. We have been completely organic for the past 12 years and have encouraged others to do the same.

Our major crops are cardamom, coffee, black pepper, vanilla, kokam, fruits and some tree spices. These are sold in the domestic market largely as farm processed and packaged produce. We also grow a variety of fresh foods for inhouse use at our guesthouse, Rainforest Retreat.

Organic Practices

The rain forest offers an amazing range of both animal and plant species and a rich detritus in the soils. The field is a complex ecosystem that cannot be evaluated upon merely its NPK content and requires one to consider the soil as a living system. Our endeavour is to strike a balance between time-tested traditional practices and modern scientific approaches. We encourage multiple cropping and have much of the cardamom intercropped with the vanilla on the base of the valleys, whereas the coffee and spice trees are grown along terraced slopes which are contour-banded. Black pepper vines grow on the native tree species. Additionally, the forest canopy is maintained to harbour the diverse resident plant and animal species as well as to conserve the fragile top soil. Canopy shade is regulated to enable about 60 per cent light on the crops. Part of the forested lands are left uncultivated.

The weeds found on the land here are diverse and we conserve their populations through use. Weeds are invaluable in providing biomass which we require in abundance for composting, mulching to keep the soil moist and protected, and for returning nutrients back to the soils. Weeds also create native habitats for all the other supportive species which constitute an integral part of the ecosystem. Initially, we had developed mixes of plant extracts which we used for curtailing populations of stem borer, a major pest of cardamom, the larva of a moth (*Conogethes punctiferalis*). Since most of these were repellents, spraying them on the cardamom crop encouraged the pest (and other sap suckers) to move into the uncultivated areas in the valleys. Over the years, we have been able to build up an amazing range of predatory populations like birds, spiders, dragonflies, mantids, frogs, shrews, wasps, etc, who are now actually doing all the pest control work for us. We have not used any sprays for pest control in the last 6 years. We still have the borer moth; however, these are no longer above pest threshold levels.

We feed our plants with the compost prepared on the farm. The major components are the native weeds which already have the nutrients required for plants to grow. The trick is to bring it into a recyclable form in a cost effective

and efficient way. We mix in cow dung, farmyard wastes, wood ash, and drench it with a mix of EM (Effective Microorganisms, which is a mixture of native soil bacteria). The bacteria can be propagated in molasses and help in rapidly breaking down and mineralizing all the organic matter. Conventional methods took us 6-8 months to prepare good quality compost. The use of EM enables us to have excellent friable and sweet smelling compost ready in two months under our conditions. We do not use any external inputs, and all organic matter is recycled. We occasionally use traditional preparations like Panchkavya and cow urine (composted) as supplementary liquid manures.

We collect, save and share seeds and maintain nurseries for all crops. The location is changed every year to avoid pathogens from developing in one area.

Energy

Solar energy is tapped for electric lights and a part of the irrigation. Bio gas (from cow dung) is used for the kitchen. All domestic wastes are recycled into compost using EM. Water is harvested for irrigation and domestic use.

Our learning:

Organic farming is an integration between plants and our animals like the cattle, poultry, ducks, geese, turkeys, dogs and goats are invaluable in complementing all the agricultural activities on the farm. We have come to realize that it is only when farming is based upon 'natural principles' can it be truly sustainable. Ecological farming is based on nurturing and nourishing the soils. Having healthy predatory populations within the agri-ecosystem naturally reduces the pest damage caused to crops. Having genetic diversity amongst the cropping system also enables us to select and maintain resistant clones. The heavy rainfall zones in the Western Ghats have a fragile ecology and are extremely prone to soil erosion. It is important to try and adopt agricultural practices which emphasise soil conservation and build up of organic matter rather than conventional farming techniques which depend upon heavy use of chemical pesticides and fertilizers that destroy the natural balances and lead to further destruction of this rich environment.

The land can only continue giving if we return to it what we take from it.

Products

Our certified plantation products are: Gourmet filter Coffee, Cardamom, Garcinia, Black Pepper, Vanilla Beans, Green Tea and Black Masala Tea. All products are available by mail order nationally and internationally.

Eco-Retreat

The Rainforest Retreat is a unique eco-lodge that enables the experience of living in harmony with nature.
www.rainforestours.com

Education Outreach Programme

We also organize and host workshops and educational programs with emphasis on organic farming, sustainable living, rain forest ecology and biodiversity for students and special interest groups such as organic farmers.

(Source: Communication with OIP)

I K SUBBAIAH

Prabhu Estate, Mythadi Village, Via Virajpet, Dist. Kodagu, Karnataka. Ph.: 08272 201355, Cell: 9448219355, Email: lifecoorg@rediffmail.com

I.K. Subbaiah's farm is located at Mythadi in Kodagu. After farming chemically for one year he has switched to organic farming for the past 7 years. Turmeric, ginger, cardamom, pepper, coffee, guava, banana and pineapple are cultivated. Surplus is marketed. He follows compost preparation and application on his farm and believes that compost application in the initial years is very important and apart from this one may introduce various sprays. Compost application should be done around the drip circle of the plant and mulching of the compost is very important otherwise the compost dries up when there is excess sun and it gets leached out when there is excess rain. The compost should have all the heat that is generated while de-composing. The estate also has a floriculture section growing Heliconia & Musa species and Torch ginger and supplies as many as 1000 anthuriums per week to markets in Bangalore.

His farm produces special varieties of paddy: dhodi and jeerage sanna. Presently dhodi is being lab tested for fiber and protein content.

Prabhu Estate also offers farmstays at reasonable costs.

Details of tariff and product list is available from www.organicassociationkodagu.org/Prabhu Estate.html

(Source: Communication with OIP)

A.D. KULKARNI

At/Post Sotakanal Naganur, Navalagund Taluka, Dharwad District, Karnataka.

Kulkarni is a graduate with 25 acres of irrigated and 25 acres of dry land, all of it black cotton soil. He was previously employed in a city, but after coming in contact with Pradeep Tapas was inspired to live in his village. He produces a lot of vermi-compost, the excess of which is sold. He grows cotton, cereals, maize and chillies and has a dairy. He has

developed organic plant sprayers which are available for sale.

(Source: D.D. Bharamagoudra)

DR D.C. GADDI

At/Post, Malasamudra, Gadag Taluka, Dharwar District – 582 101, Karnataka. 08372-

A veterinary doctor who resides on his farm, Dr. D.C. Gaddi owns eight acres of land on which he grows good mulberries, brinjals, tomatoes, other vegetables, flowers, coconuts, lemons and tamarind. On a small patch, he grows foodgrains for home consumption. He also maintains a dairy.

(Source: D.D. Bharamagoudra)

GOPAL B. KULKARNI

830/1 Shitavani Shivaji Nagar, At Rattihalli Tq Hirekerur, Dharwad Dt., 581116 Ph: 08376-286052

A graduate farmer who is staying on his farm, Kulkarni has four acres of irrigated land and seven acres of dry land. On the irrigated land he grows jasmine (one acre), coconuts, sapota and green fodder. On the dry land he grows cereals and pulses for his home consumption. He also does sericulture. Within four years of switching to natural farming, he has no problem with yellow leaf disease in the jasmine fields.

(Source: D.D. Bharamagoudra)

G.C. VIJAYARAGHA

At Guddetota, Post Shantigram, Koppa Taluka, Chikkamagalur District, Karnataka.

This farmer's coffee plantation and nursery are located on a beautiful hillside. Gravitational irrigation is provided from a tank constructed on top of the hill. He also grows areca nuts and spices. He has five years experience in organic farming.

(Source: D.D. Bharamagoudra)

KRISHNA KRISHI ALTERNATIVE AGRICULTURE ASSOCIATION

Hulakoti, Gadag Taluka, Dharwad District, Karnataka.

(Contact: Pradeep Tapas)

This five-year old trust is looked after by Pradeep Tapas. It has a 52 acre farm, with hard red soil and three bore wells. 10 acres are for dry land farming; 16 acres are planted with mango, guava and chikoo, wind breakers and live fences. The farm has sericulture and makes vermicompost. The project provides for experimentation in agriculture. Training farmers is also another aspect of its work.

Tapas is an engineer and a follower of Sri Aurobindo and the Mother. He has 10 acres of land in Bedasgaon in Mungod Taluka, Uttar Kannada District where he grows coconuts, cashews and mangoes. He has 2000 rose plants. He plans to cultivate exotic vegetables like artichoke, red cabbage, asparagus, etc. He is conversant with various aspects of sustainable agriculture including organic farming, permaculture, biodynamics, etc.

(Source: D.D. Bharamagoudra)

K.A. JAGADEESH

At Karimane, Post Kalkere, Koppa Taluka, Chikkamagalur District – 577 123, Karnataka.

Jagadeesh has been practising organic farming for the past nine years on 40 acres of land in an area of heavy rainfall. The main crop is coffee. He has recently 'inter-planted' coconuts, pepper and cardamom. His coffee yield remains normal, but he says he has yet to work hard. He is very interested in biodynamics. December to January is a good time to visit the farm.

(Source: D.D. Bharamagoudra)

K.N. RAJENDRA

At Bindravalli, Berukudige Post, Koppa Taluka, Chikmagalur District – 577 126, Karnataka.

Rajendra has 2.75 acres of arecanut and one acre of coffee (newly planted). He has been practising organic farming for the past five years and getting good yields. The area is hilly and has heavy rainfall. He uses Bordeaux mixture for arecanut. He, his brother and father work on the farm.

(Source: D.D. Bharamagoudra)

K.T. NAGENDRA RAO

At Golgar, Post Kasave, Koppa Taluka, Chikkamagalur District – 577 126, Karnataka.

He cultivates six acres of arecanut, three acres of paddy and two acres of vanilla. He has been practising organic farming since 1990. He uses Bordeaux mixture for arecanut. Snices grow in his arecanut garden. He uses compost

bio-fertilizers and mulch. He had very low yields in the first two years, but now gets good yields. He also uses neem cake for his plantations of nutmeg, arecanut, pepper and cardamom. For paddy he uses compost, cow urine spray and 'yayavillanga' (this is the seed of a plant) spray.

(Source: D.D. Bharamagoudra)

N.S. NAGABHUSAN

At Nilavare, Post Tenginakoppa, Tirthahally Taluka, Shimoga District – 577 414, Karnataka.

Nagabhusan has been practising organic farming since 1990. He has tried a lot of experiments, using different farming practices and different varieties of crops. The soil has now become fertile, and after four years of organic farming he is getting fairly good crops. He has tried short and tall varieties, local and improved varieties. He is cultivating paddy, arecanut, betel vine, pepper, banana, nutmeg, cardamom and other spices. He uses compost, green manure, mulching and neem cake as manure and grows pesticidal plants to ward off pest attacks. (Source: D.D. Bharamagoudra)

S M MANGALI

Post Shirahatti, Taluka Gadag, District Dharwad – 582 120, Karnataka.

S M Mangali, 75, is a retired school teacher. He has been doing organic farming for the past decade with the assistance of his son, on seven acres of farmland. He believes that organic farming is a way of life and must extend to influencing the way we live and the choices we make.

For a few years they ran a dairy but once they decided to go in for sericulture the dairy project had to be abandoned as it was not possible to give attention to both.

Mangali has been identified as one of the grassroots innovators in Karnataka by the Honey-Bee Network. He has designed a hand-operated weeder, a low cost and handy instrument that reduces physical strain in weeding operations. He has also designed new types of trays for the rearing of silkworms that reduce space requirement considerably, thereby bringing down the costs of construction of rearing houses. These trays can double the capacity of the rearing houses.

Mangali believes that community effort is more beneficial and rewarding than individuals striving on their own and therefore sees the blooming of the organic farming movement as a good sign for the future.

(Source: Communication with OIP)

SURESHGOUDA PATIL

Shivraj Agri Brothers, Post Hulakoti, Taluka Gadag, District Dharwad – 582 205, Karnataka.

Sureshgouda Patil is a young, dynamic agriculturist, practising organic farming since 1990. His land has rich, black soil in some parts and poor, red and sandy soil in others. The region receives around 45-62 cms of rainfall each year.

To start with, for up to six years, Suresh used vermi-compost that he had prepared on 33 beds on his own land, in the ratio of 2-4 MT per acre. In the sixth year he could see that there were around 8-16 earthworms per cubic foot on his land. Thereafter, he started directly adding farmyard manure to his land and also mulching agricultural waste from cotton and chilly with the help of tractors and rotovators. The water retention capacity of the land increased, resulting in increased yields.

Sureshgouda grows cereals, pulses, cotton, chillies, oil seeds and onions. Products from his farm fetch a minimum 25% greater price in the market. He has been demonstrating his experiences in organic farming to other farmers in the village. From October till the end of January is a good time to visit his farm.

(Source: Communication with OIP)

SUBRAYA B. HEGDE

At Mattiha, Post Tyagali, Siddapur Taluka, Uttara Kannada District – 581 340, Karnataka. Phone: 08389-281508

A young farmer, Hegde has three acres of paddy land and four acres of arecanut plantation mixed with cardamom, pepper, nutmeg, cloves, coconuts, bananas, etc. Many varieties of cucumbers and vegetables are also grown. He has 10 cows and a power tiller. He has been practising organic farming since 1989.

He uses dry and green leaves from the nearby forest for compost. In December, he puts the compost and greens in the paddy field and grows pulses after the paddy. Cow manure and urine are used in his agriculture. Sowing is done before the new moon day. Gas plant slurry is used in compost making.

Time to visit: September to January-February.

(Source: D.D. Bharamagoudra)

HEMANT KUMAR

No. 20, UAS Layout, RMV II stage, Bangalore – 560 094, Karnataka. Cell: 099722-31707, Email: sylvanparadise@rediffmail.com

The 25 acre farm is located in Belavatagi, Dharwad. After farming chemically for 10 years he converted. His farm has been organic for the past 12 years. He grows wheat, maize, sorghum, chilli, cotton, sapota, green gram, bengal gram, red gram, safflower, linseed, onion, nizer etc. on his farm

Hemant Kumar's produce goes to the general market. However, 75% of his produce is purchased by neighbouring farms as seed. He claims with pride that his produce is so appreciated that the bulk is used as seed.

(Source: Communication with OIP)

SRI BASAVESHWARA SWA SAHAYA SANGA

613/1, Srivenkateshwara Nilaya, K.T.J. Nagar 15th Cross, IIIrd Main Davanagere - 577 002, Karnataka. Tel: 08191-282008, Cell: 09448944506

(Contact: R. Vijayakumar, Secretary)

R. Vijayakumar, has been involved with issues relating to organic farming for the past 6 years. His organization is a farmer group that has 100 member farmers who grow organic mangoes, exported through APEDA, Delhi under the brand name 'Peacock.'

(Source: Communication with OIP)

DR. DEVANGI R. PRAFULLACHANDRA

'Krishi Sampada,' Hosahalli Village (Lakshmipura), Shimoga 577 201, Karnataka. Ph.: 08182-272730, 229128

Crops grown: Sugarcane, arecanut, coconut, coco, banana, pepper, vanilla, cinnamon, fruits, Silvi-Horticulture and bamboo.

Dr. Prafullachandra is well known in organic farming circles in Karnataka and around the length and breadth of the country for his contributions to innovative low cost farming techniques. He is known for the introduction of multi-storey cropping, efficient irrigation practice, recycling of organic wastes, developing innovative farm tools and areca processing methods.

He started his farming practice in the early 1960s and has evolved into a farmer par excellence. Recipient of numerous national and international awards he is often referred to as 'fountainhead' of creative ideas in farming. University of Agricultural Science, Dharwad conferred on him an honorary doctorate in 1995.

His contributions in Ratoon Sugarcane is unique. He has been practicing Ratoon Sugarcane plantation under zero cultivation since 1968 and holds a record for Asia and Pacific Region countries for growing ratoon sugarcane from a single plant since 1968.

His innovative method of coconut cultivation along with legumes has yielded more number of nuts than the record average. The multi-storey method of areca plantation along with cocoa, banana, pepper and vanilla is now being emulated by many areca planters.

Dr. Prafullachandra's farm is a living laboratory where dozens of farmers, scientists and government agencies visit every day to learn from living practices.

(Source: Booklet on Dr. D. R. Prafullachandra)

ORGANIC ASSOCIATION KODAGU

www.organicassociationkodagu.org

Email: info@organicassociationkodagu.org

The Organic Association Kodagu (OAK) was founded in 2007 by several like minded organic farmers endorsing an eco-friendly way of life. The aim is to raise awareness about organic farming and spread the market reach. OAK meets bimonthly.

Presently Asha Kiran Estate, Craigmere Estate, Golden Mist Plantation, Mojo Plantation, Palthope Estate and Prabhu Estate are its members. Some farms offer farmstays and learning opportunities. Respective farms may be contacted directly through individual sites, all accessible from the association website.

Their collective produce range covers coffee, tea, spices, fruits, flowers and indigenous rice varieties. All are certified farms.

(Reference: Website)

ORGANIC AGRICULTURE IN TIBETAN SETTLEMENTS- BACK TO NATURE

Settlement Officer, Office of the Representative, Dhondenling Tibetan Settlement, P.O. Tibetan Settlement No. 571 457. Kollegal, Chamrajnagar Distt., Karnataka. Ph: 08225-273244, Fax: 08225-273164, Cell: 09448958862, Email: repdhonling2002@yahoo.co.in, Web: dhondenlingorganic.org

Background

In 1959, Tibet suffered the worst tragedy in its history, forcing His Holiness the Dalai Lama and nearly 80,000

Tibetans into exile in neighboring countries. Upon arrival, the Dalai Lama decided that the Tibetans would lose their culture and identity if they did not live in cohesive units. With the assistance from the Government of India, NGOs, individual donors and with the faith and tenacity of the Tibetan refugees themselves, more than 50 Tibetan Settlements were established in India, Nepal and Bhutan. Most of them are agricultural based. The five Tibetan Settlements established in Karnataka, account for approximately 40 % of the total Tibetan population in exile.

The Dhondenling Tibetan Settlement, Kollegal is one of the five major settlements. 3121.14 acres of land was provided for rehabilitation in the vegetative reserve forest, located in Odeyarpalya, Kollegal Taluk, with a total cultivable land area of 2407 acres. The settlers practiced chemical agriculture till recently and were initiated into organic farming only in 2003 by Central Tibetan Administration (CTA) and the Dalai Lama's Central Relief Committee (CTRC). Dhondenling Tibetan settlement has been adopted as a Model Organic Settlement.

The objective is to uphold the rich knowledge of traditional farming and to convert the present chemical based agriculture practices into more reliable and healthier organic based agriculture practices. Support farmers with marketing assistance, authenticate produce and take agriculture back to ecologically sustainable ways.

So far, of the 22 villages, three villages have converted 461 acres of their land to organic cultivation. Gaining confidence from them, the farmers of other villages are gradually converting their share of land into organic. The strategy used is to first stabilize natural resource base. This would enhance yields in kharif crops and create possibilities for the second crop on more favorable lands.

Sahaja Samrudha is facilitating this endeavour through trainings, workshops and field support.

MUDDERESHWARA ORGANIC FARMS

Office: 147/2, 5th Main, Chamarajpet, Bangalore 560 018, Karnataka.

Farm at: 9th KM, Anekal – Hosur Highway, Bangalore Suburb, Thimmasandra (V) Sambandur Post.

For Trade: Ph: (080) 22422709, Fax: (080) 26612663, Farms: 095811 065 4996, Cell: 094488 18704/98807 12852

Muddereshwara organic farms grow and sell the following:

Stevia (seedling and foliage)

Patchouli (Aromatic) seedlings and foliage

Banana (exotic varieties)

Papaya

Capsicum

Aromatic, medicinal plants, herbs and culinary plants

Range of organic vegetables and fruits

Specialists in organic vegetables seedlings and banana suckers

(Source: Brochure)

GREENPEACE

No. 60, Wellington Street, Richmond Town, Bangalore 560 025, Karnataka. Ph: 080 41154861, Fax: 080 41154862, Cell: 099720 99738, Email: smitha.rao@greenpeace.org, Web: greenpeaceindia.org

Greenpeace is an independent global campaigning organization that acts to change attitudes and behavior, to protect and conserve the environment and to promote peace. The organisation has recently published a major critical report on why it is necessary for Indian agriculture to move from chemicals to vermicompost.

Gopi – SUSAG (sustainable agriculture)

(Source: Communication with OIP)

ASR HERBALS

71/2, 21st 'A' Main Road, Marenahalli, J.P. Nagar II Phase, Bangalore - 560 078, Karnataka. Ph: 080-26493204, Fax: +91-80-26651157, Cell: 98450 06451/98451 96473, Email: stevier@asrherbals.com, Web: www.asrherbals.com

Product: A zero calorie herbal dietary supplement

Stevia rebaudiana: Madhu patra

Leaf powder, liquid extract, unrefined stevioside, refined stevioside, mouth wash, tooth gel, sugarless supari, diet mitha paan.

(Source: Brochure)

The Rice Growers of Nisarga Foods

NISARGA ECOPRODUCTS

570/1 'Padmashri Nilaya', III Main, IV Cross, N.S. Palya, BTM II Stage, Bangalore 560 076, Ph: 080 26784509, Fax: 080 26591729/080 26680995, Email: greenfound@vsnl.net, green@greenfoundation.org.in, gfbangalore@gmail.com,

Web: www.greenconserve.com

1. Basumathi (local scented) Rice: This variety can also be mixed with other rice varieties for consumption. It tastes good and has unique flavor.

Shri. Basavaraj, 45, from Aralagadakalu village, Mysore has been growing Basumathi for the last 4 years in his 2 acres farm. He grows about 50 bags annually and retains 15 bags for home consumption. The surplus is sold.

For growing Basumathi organically, farmyard manure and vermicompost are used. His experience is that if chemical fertilisers are used for growing Basumathi, it is susceptible to disease and pests. The fodder yield is good, even the straw has aroma and the grains are comparatively heavier than other varieties. When milled, it gives 65 kgs of rice per quintal as compared to 50 kgs from other varieties. The variety has a good market.

19 more farmers grow the same variety in his area.

2. Red rice (Doddabaira Nellu)

Shri. Venkatappa, aged 90, lives in Kunigal village, Tamil Nadu. Growing of red rice by his family dates back to more than 250 years. He grows paddy in 6 acres of land and harvests 90-100 bags a year. Just 10 bags are retained for family consumption. The remaining produce is sold. It is suited well for organic cultivation. In his experience, if DAP is applied or chemical fertilisers are used, it tends to lodge and the seed become chaffy resulting in crop failure. This variety grows profusely in extreme conditions and 10 day old young plants can withstand without rain for 2 months. He has not seen the crop getting infested. The crop is highly profitable due to minimum external inputs. When milled, it gives 65 kgs per quintal, whereas other paddy variety yields 50 kgs per quintal. There is a great demand for this variety in the market.

According to Mr. Venkatappa the Red rice has high nutritive value just like ragi. It has good cooking quality and can keep for two days after cooking.

More than 25 farmers grow this variety in Kunigal village and over 100 farmers grow it in the surrounding area.

3. Sannavalya

Shri. Srivatsa of Chakkodabailu, Thirthahalli, Shimoga district, has been growing Sannavalya variety for generations. He is a young progressive organic farmer conserving this variety. Due to its excellent food quality, he has been growing it for many years for both consumption and for the market.

One of the special characteristics of this variety is that it survives even in flooded conditions. Though this variety originates from the Malnad region (Western Ghats) of Karnataka, it is very popular in other regions as well for its taste and cooking quality. The rice is red in colour, soft when cooked and has an appealing aroma.

4. Chinnaponni is originally from Madhurai region of Tamil Nadu state. It is a farmer-developed variety: a short duration crop growing to a medium height requiring less water. It does not lodge.

Smt. Kempamma aged 50, lives in Kanavemadhapura. She has been growing Chinnaponni for 5 years in her 2 acres of land and gets 70 bags of paddy. Half is retained for the family's consumption and the rest is sold. The grain is small in size, but enlarges on cooking, has good cooking quality and is slightly sticky.

She uses farmyard and green manure on her farm. Kempamma has distributed seeds to more than 20 farmers in her village. Over 60 farmers in the area grow this variety.

5. Mysore Mallige: This variety is originally from Philippines. It was identified and developed by Mr. Lingamadaiah of Channapattana taluka, Bangalore rural district. The variety is pest and disease resistant and does not lodge. It is a fine variety and has very good cooking quality.

Shri. T.N. Shankarappa, aged 55, is the resident of Therubeedi village, Bangalore rural district. For more than a decade, Shankarappa has been growing Mysore Mallige. He borrowed seeds from a farmer in the neighbouring village. He grows this variety in one acre of his land and harvests 35 bags annually. He retains few bags for his family consumption and the rest is sold in the market.

6. Sanna Munduga a dryland drought tolerant variety, is on the verge of extinction. Only two known farmers are growing this variety.

Smt. Kalibai, aged 60, Sheethalwadi village, Kanakapura Taluk, Bangalore rural district. Her family has been growing Sanna munduga for the last 2 generations. She grows this variety organically on a one-acre farm and harvests about 25 bags annually. The whole produce is kept for her home consumption.

Shri. Nanjunda of Saraswathinagara is the other farmer growing this variety of rice. The seeds were originally borrowed by his family from kalibai about 20 years ago. He grows Sanna munduga on one acre of land. The land yields about 22 bags of which 5 bags are retained for home use.

A small quantity of farmyard manure is sufficient for a good yield. It can be either broadcast or transplanted depending on the type of cultivation - dryland or irrigated. The grain is brownish in colour, has good taste and can keep for two days after cooking. When milled, it gives 65 kgs of rice/quintal.

7. Karidadi Buddha is an indigenous variety of Chinnikate village. It can be grown in irrigated and dryland conditions, yields good fodder and has good cooking quality.

Shri. Shrenik Raju's family of Chinnikate village has been growing this variety for 2 generations on one acre of land. He harvests about 16 quintals per year, half of which is retained for self consumption.

He uses the plough for sowing the paddy seeds instead of Kurige. Farmyard manure and vermicompost is applied to enrich the soil.

More than 25 farmers in Chinnikate and Kasambi villages grow this variety.

8. Salem Sanna is originally from Salem region of Tamil Nadu state.

Shri. Shankar Guru of Modarahalli, T. Narasipura taluk, Mysore district has been growing Salem Sanna for the past 12 years with the express purpose of reviving and conserving it. Shankar Guru frantically searched for this variety and travelled to many places to locate it. He grows this variety for both selling and for home consumption. He harvests about 28 quintals in an acre and retains 8 quintals for home consumption and rest is sold. Green manure, sheep and goat manure are used to enhance the soil fertility. He is experimenting with Madagascar method to cultivate this variety.

Presently 10 farmers grow this variety in T.Narasipura Taluk, Mysore, District.

9. Raj Kamal

Shri. Nanjunda of Saraswathinagar grows Raj Kamal variety on 2 acres of his 3 acres farm. It grows to a height of 3 feet. When cultivated organically, hardly few chaffy seeds can be seen.

If fertilisers are applied the plant tends to become lanky resulting in lodging. Lodging leads to failure of crop. The annual yield is about 50 bags of which the 30 bags are sold. On milling it yields 68 kgs per quintal.

The grains are egg shaped and light brownish in colour. It has good cooking quality and taste.

Over 10 farmers grow Raj Kamal in his area.

10. Gandhashale is a scented variety with a pleasant aroma. Grains are small and light cream in colour. This variety is originally from Malnad region of Hassan district of Karnataka. It can be grown in all agro-climatic regions of Karnataka and is very well adapted to the plains (bayaluseeme).

Shri. Shrenika Raju 38, is from Chinnikate village, Byadagi taluk. He grows Gandhashale variety on his 2 acre farm, harvesting 32 bags, of which 3 are retained for home consumption.

Some other farmers growing this variety are from Kashimbi, Nidinegilu, of Haveri district, Balekoppa and Chakkodabailu, of Shimoga districts, Siddanhundi, Madarahalli, and Hunusur of Mysore district.

(Source : Brochure and tele communication with OIP)

IMRAN KHAN

Balayatrie Estate, Boikeri P.O., Madikeri, Karnataka. Cell: 9448247247, Email: imrankhanmys@gmail.com

Imran Khan, an electronic engineer by training but a naturalist at heart, started managing his father's farm 8 years ago. For the past three years he is experimenting with various methods of organic practices. Two acres of the farm have been setup with drip-irrigation which he plans to extend to the entire farm. He moved to farming because it has always been in his family. Prior to which, he worked with Wildlife First, a premier conservation organisation in Karnataka where he was exposed to the significance of conservation first hand.

His farm had begun to lose coffee, cardamom and pepper plants. To reestablish yields, he switched to organic methods. He follows Palekar's method which he happened to read about in the newspapers, followed it up by reading Palekar's books and taking a one-day training at Krishnappa's farm in Bannur, Mysore. He has kept three cows and uses the cowdung dissolved for two days and cow urine as inputs.

Arabica coffee that is expected to yield in 5 years is inter-planted with bananas. Since arabica is known to tolerate shade more than the robusta variety, the banana inter crop helps to fetch an income till such time that the arabica begins to yield.

(Source: Communication with OIP)

Dr. M.N. RAMESH

Associate Professor of Forestry, P.Box No. 63, Prabath Estate, Kuttapost, Kodagu District, Kutta 571 250, Karnataka. Ph.: 08274 244412, Cell: 9448313001, Email: ramesmn@yahoo.co.in.

Dr. M.N. Ramesh is an associate professor at the College of Forestry, Ponnampet, Kodagu. He comes from a farming family and has been farming on 10 acres for the past 15 years. His farm is located at Badaga village and is tank irrigated. He switched to organic inputs 5 years ago before which he was practicing chemical farming for 10 years. Realization of the ill effects of chemical farming on soil, water, animals and humans made him switch to organic. He grows cocoa, coffee, coconut, ginger, pepper, avocado and pineapple. Organic farming practices involved are the application of only organic manure such as FYM, compost, vermicompost, timely irrigation, pruning and training, opening of trenches etc. He uses farmyard manure, compost and vermicompost prepared on farm. He keeps 10 cows, 5 bulls and 10 calves. The only difficulty he finds in this method is the paucity of labour.

(Source: Communication with OIP)

K.M. BELLIAPPA

Craigmore Estate, P.O. Box 10, Pollibetta, Kodagu - 571 215, Karnataka. Ph.: 08274 251341, Email: craigmoreanorganics@gmail.com.

The 68 acre Craigmore Estate is located at Chenaanakote, Pollibetta. 58 acres of these lands is tank irrigated and 10 acres is rainfed. The Craigmore Estate is being managed by Pramila and Bharath, a mother and son team. They are farmers by lineage.

With the onset of chemical agriculture and in keeping with the trends of the times, they too switched to chemicals and practiced chemical farming for decades. However, 5 ½ years ago they decided to revert to organic farming methods out of awareness, concern and commitment to the local ecology. Pramila and Bharath practice biodynamic farming, vermicomposting and agnihotra homa. Dr. A. Thimmaiah introduced them to organic and bio-dynamic practices and late Shri. Vasant Paranjape played a key role in putting in place homa practices on the farm. Pramila's own background and knowledge of homeopathy convinced her that cosmic influences could be stimulated through both biodynamic and homa practices, to have a healing and energizing effect on all living forms in the area of practice. A few high energy points were identified on the farm for the practice of homa by Late Shri. Paranjape himself. At these sites, a small hut has been built using only natural on-farm materials. Agnihotra-Homa is practiced here.

Says Pramila, 'Homa is to be practiced at sunset and sunrise when the sun's energies are most potent. Homa is very easy. It takes 10 to 15 minutes twice a day. And on full moon days one can practice triambakam homa round the clock by many in turns. This has a highly healing effect not only on the farm and the land, but on every object and life form coming within its influence. There is a great sense of healing and unity felt. In South America and European countries people practice collective homa everywhere – on farms, in public places, community halls, homes, parks etc. Even Dr. Pathak, Chairman of National Horticultural Mission promotes the practice of homa. I began by practicing homa in the verandah and noticed that there was a profusion and outburst of flowering in the potted plants on the verandah. Almost without any effort, there was less disease and greater output. Even the ash is very potent. Insect bites if rubbed with the homa ash, heal immediately. The intake of homa ash ½ to one teaspoon in water in the morning and at night has a soothing and healing effect on the body. Micro flora and fauna are also energized. With homa there is positive mutation in insects and animals and for humans, there is a sense of peace, wellbeing and the feeling of being in tune with nature.'

Pramila and Bharath have also incorporated Biodynamic practices at Craigmore. Pramila received training in biodynamic farming from Peter Proctor and David Hogg. Prior to 2003, even though chemical sprays were used, alongside the use of compost, herbal and garlic extracts etc. were routine practice. Bharat adds, 'Biodynamic is good for vegetable cultivation, but for coffee it can be cumbersome, time consuming - especially because of the extent of acreage and paucity of labour. Being organic is tough for coffee planters even though, there was no noticeable drop in production after conversion. In our personal experience biodynamic and organic methods work well in small areas for vegetables, fruits, rice and annual crops. The conversion period stabilizes in a year or two.'

Pramila reveals that the cow is central to both homa and biodynamic practices and says that the cow horn is used in biodynamic practices since it is the site of high energy. The energies of the cow horn are directly linked to the multi compartment stomach of the cow and hence there is high microbial action in the cow dung and cow urine. A conducted tour of the estate takes you to coffee drying and processing areas. The coffee pulp effluent is directly led into a pond which is treated with yeast and jaggery mixture. The effluent ferments into a liquid of high microbial content which is then used for moistening the composting beds. This compost is applied to the plantation. The biodynamic shed has sunk-in CPP units, tanks and drums in which composts are prepared and drums filled with cow urine and Glyricidia left to ferment for preparing of foliar sprays and highly potentized bio inputs. Going around with the mother and son duo, one follows suit ever so naturally - digging into composting beds layered with dung and dipping into drums of cow urine foliar sprays in the making.

Bharat, a trained photographer is actively involved in the running of the farm for most part of the year. He stays in touch with his photography profession through long tours to distant lands taking pictures of ecological connect. These are promoted through solo exhibitions. He finds a ready clientele for his pictures in big business houses who buy his pictures for their interiors and for use as company promotional year calendars. He has managed very well to follow his family occupation of farming as well as pursue his love for photography.

(Source: Farm visit by OIP and OFAI Team)

Dr. C.G. KUSHALAPPA

Asha Kiran, Konanakatte, Dhanugala Post, Kodagu – 571 216, Karnataka. Ph.: 08274 242322, Cell: 9845098685, Email: kushalcg@gmail.com.

Dr. C.G. Kushalappa is a Professor at the College of Forestry, Ponnampet, Kodagu. The college offers an undergraduate, post graduate and doctoral programme in forestry studies. Dr. Kushalappa switched to organic methods 8 years ago after practicing chemical farming for 12 years. He was introduced to the practices of biodynamic farming by Dr. A. Thimmaiah. His 18 acre farm is located at Konanakatte where he grows rice, black pepper, ginger,

coffee, coorg mandrains, sapota and vanilla. Liquid manure, CPP and biopesticides are prepared on farm, the base materials for which are sourced from 15 cows and 5 calves maintained in the farm. The farm's water requirements are met by rain and other irrigation sources. Dr. C.G. Kushalappa says that there are no major problems faced in his farming activities, however there is a need to ensure that this type of farming becomes economically more rewarding. (Source: Communication with OIP)

DR. K. SHIVARAMU

Sr. Scientist, Indian Institute of Horticultural Research (IIHR), Extension-CHES, Chettalli, Kodagu – 571 248, Karnataka. Ph.: 08276 266635, Cell: 9449122953, Email: Keelarashiva@yahoo.co.in.

Between 2003-2006 Dr. Shivaramu was deputed as Professor of Entomology to a new college at Bhimrayanagudi, Shahapur, Gulbarga, affiliated to University of Agriculture Science, Dharwad.

Gulbarga is known for its cultivation of pigeon pea (tur dal), a staple pulse in a majority of Indian homes. The town was infested with numerous distributors of chemical pesticides and fertilisers. Of the 175 crore worth of pesticides and fertilisers sold in Karnataka, 75 crores worth was sold only in Gulbarga district.

According to Dr. Shivaramu, The problem with chemical fertilisers apart from its poisonous nature when applied in improper doses is that irrigation is mandatory at critical stages for a plant's growth. Gulbarga's command area of canal irrigation also brought in chemical practices associated with the green revolution. However the average farmer was noticeably exploited because of his innocence and ignorance. Pharmaceutical companies even today continue to market not only chemicals but also chemicals with expiry dates.

Says Dr. Shivaramu, 'Given this scenario people like us can only advocate preventive measures and promote natural practices to the extent possible.'

Dr. Shivaramu's personal interest and expertise is in the control of insect pests through biological interventions in their life cycle at specific stages of development.

(Source: Communication with OIP)

GOLDEN MIST PLANTATION

Galibedu Village, Dist. Kodagu, Madikeri - 571 201, Karnataka. Ph.: 08272 265629, Cell: 9480788192, Email: gmohp2000@yahoo.com, Web: www.golden-mist.net.

Ludwig of Golden Mist Plantation, a German, was trained in horticultural and floricultural practices for three years in Germany. His work there, for over 10 years, using high doses of fertilizers and pesticides made him turn towards India looking for eco-friendly answers to his dilemma of having to poison the soil in order to grow food and flowers. Between 1991 and 1995 he spent time at Auroville with their afforestation and water conservation programme. In 1995 Ludwig met the Goels of Mojo Plantation, visited Coorg and never looked back.

He is the caretaker of a 26 acre farm at Galibedu on which he has been farming organically for the past 14 years. The farm relies on a stream for its water requirement. He grows rice, pepper, coffee and tea. The tea is processed on farm at a micro scale level to make green tea. His search for a relatively easy method and way of farming organically led him to discover EM. Since then, he has been using EM successfully in all his farming practices. He also practices biodynamic farming. Says Ludwig, 'Things have changed since the time I came into organic farming 14 years ago. There is more knowledge. Information is readily available. The knowledge of popular and traditional Indian methods of farming is easily accessible and wholeheartedly shared. In short, the word has spread. Organic farming is taught in no school. One learns from fellow farmers. 28 years ago, when I was studying at the Institute of Plant Pathology at Bonn University, the entire curriculum was in support of chemical agriculture. The place had, even then, fantastic state of the art latest equipment for research and training. At first glance it came across as a great place for learning but hidden somewhere one would notice a small inconspicuous board stating that the project, equipment etc. was being sponsored by Bayer or some other chemical and pesticide company. Even educational institutions were in the pockets of the chemical industries. This has not changed even today. The scale of domination of industry in every aspect of ordinary life is intrusive and frightening.'

Ludwig's reason for turning organic was the amount of poison used in general practices of farming. What he finds most difficult to accept and deal with is the mentality of the food grower, the consumer, agri institutes, research bodies and the government. He follows EM technology, Kyusei nature farming and some BD preparations. He also uses composts and FYM and presently keeps 4 cows. Ludwig is the authorized distributor of EM for the district of Coorg. Golden Mist Plantation has two guest houses and offers homestay facilities.

(Source: Communication with OIP)

B.B. CHENGAPPA

Palthope Estate, Post Box 5, Kutta, Virajpet, South Kodagu – 571 250, Karnataka. Ph.: 08274 244222, Cell: 9448048873, Email: organic@palthope.com

The Palthope Estate was established in 1935 and ran on traditional practices for very many years till the influence of

chemical agriculture came to the estates of Kodagu. The estate was farmed with chemical inputs until Chengappa the owner of the estate realized that the quantity and cost of input only kept rising to a point (with the drop of coffee prices internationally to the 30 year low) where the farm was beginning to go into red. They switched to organic methods in 1997, choosing natural methods of composting, recycling of farm waste and application of EM etc. Slowly the benefits of organic methods turned in favour of the Palthope Estate and ever since yields have increased.

‘Flavor of India’ title won by the estate’s excellent quality of coffee, and being labeled as the most preferred Robusta coffee in the world by international coffee reviews was a turning point for Palthope. From then on, says Chengappa, it has been a success story all the way.

The 23 acre farm is located at Kutta in Virajpet. Chengappa has been engaged in farming for the past 25 years of which 13 were spent in chemical agriculture and in trying to grapple with unsustainable practices. The estate grows paddy, clove, nutmeg, pepper, cardamom, oranges, sapota and coffee. They keep cows, goat and chicken.

The only hitch that provides scope for further improvement in Chengappa’s opinion is in the area of marketing the farm produce.

(Source: Communication with OIP)

ORGANIC FOOD CLUB

203, Shukrawar Peth, Tilakwadi, Belgaum – 590 006, Karnataka. Phone: 0831 2465027, M: 9900775633, Email: homafarming@rediffmail.com

(Contact person: Abhay Mutalik Desai)

Organic Food Club (OFC) is a voluntary, service oriented organization. It identifies and promotes the produce of organic farmers from northern Karnataka who are growing vegetables, pulses, fruits, cereals and other plant products without the use of chemical fertilizers or chemical pesticides at any stage of cultivation.

Its motto is to establish a fair marketing system, with a direct relationship between the producers and the consumers. It strives to make this connection without using any mesmerizing advertisement or exaggerated claims. It educates the consumer about the real quality of food products rather than their appearances. Its activities also include creating awareness among the public about the dangers of chemicals used in agriculture.

At present the OFC is able to fulfill only a small percent of the demand. This is because of the gap that exists between the organic producers and the consumers. Only when the consumer realizes the advantages of chemical free products, and there is a good demand for it, can farmers grow solely by organic methods and fully meet the requirements. OFC tries to bridge this gap and provide a platform for both.

OFC members also offer expert advice to farmers who wish to convert to organic farming and offers support through periodic visits during the make over period.

Mr. Ashok Tubachi, the chairman of the club adds, ‘The Organic Food Club now collectively has a total of 107 acres of certified land that belongs to its various members. The certification has been conducted by Control Union Certification, head office at Mumbai which is an IFOAM, APEDA accredited body. The certification has helped us greatly to explore export possibilities. We now export our products like jaggery, brown sugar (jaggery in powdered form) and jaggery syrup (kakvi) through exporters in Hyderabad and Mumbai. The club’s produce include sugarcane, Paddy (local aromatic Basmati variety), cotton, ground nut, soya bean etc. We have had to reorient our vegetable growing because of flooding of farms during the past couple of seasons. All organic fertilisers and bio pesticides (vanaspathi extracts) are prepared at these farms itself.’

‘The Government of Karnataka has recently (2008) earmarked Rs. 100 crores for promotion of Organic farming in Karnataka. The Jaivik Krishi Society which is operated from within the Lal Bagh (Bangalore) premises promotes the sale of organic farm products and Bangalore alone presently has 230 outlets. The “Organic Farming Mission,” set up by the Govt, has joint representation from organic farmers and govt. officials from every district in the state. It is advisory in capacity and also runs 2 day workshops for farmers free of cost. The Workshop is divided into eight modules that cover all aspects of Organic Farming from “Maathi(soil) to Market.”’

Two of their club members Shri Suresh Desai (featured elsewhere in the book) and Shri Abhay Mutalik Desai were honoured by the state as ‘Krishi Pandit’ in 2005-2006. Shri Ashok Tubachi received the same award in 2006-2007. He is presently on the Board as one of the directors of “Organic Farming Mission” of the state.

‘The best benefit has come from working collectively as a group with a common mission of providing poison free food!’ proudly claims the club’s Chairman, and adds, ‘any one is free to contact us for information and free training.’

Contact details of some members of the organic food club (all organic farmers):

1. Shri A.B. Tubachi Yamakanmardi - Cell: 09448126953 Chairman of the club
2. Shri Shailesh Joshi of Hattargi - Tel: 08333-276309 Cell: 09449108543
3. Shri Abhay Mutalik Desai of Sutagatti (Belgaum) - Tel: 0831-2465027 Cell: 09900775633
4. Shri Prakash Utturi of Hattargi - Tel: 08333-276252 Cell: 09008124333
5. Shri Suresh Desai, Tel: 08338-261052 Cell: 09480448256

Members of organic food club have been acknowledged as resource persons by many institutions. They may be

contacted directly.

Shri Abhay Mutalikdesai and Shri Suresh Desai have been acknowledged as resource persons in organic farming by :

- University of Agricultural Sciences Dharwar.
- K.L.E. School of Agriculture Belgaum
- Konkan Mango Growers Association Malvan/Ratnagiri, Maharashtra
- Doodh Ganga Co-op Sugars Chikodi, Gokak Power Distilleries and Sugars, Warana, RAjaram, Krishana Sugar Factories Maharashtra
- Vigyanan Bhavan Delhi
- IIT Delhi
- UNDP
- Karnataka Pradesh Krishak Samaj
- Karnataka Vikas Bank Dharwar
- Rotary & Lions Club Belgaum
- Organic Farming – Govt. of Karnataka
- National Horticultural Mission
- Jaivek Krishik Society – Lal Bag Bangalore

(Source: Communication and Tele-interview with OIP)

JAIVIK KRISHIK SOCIETY (JKS)

Nurseryemen Co-operative Society Premises, Lalbogh (Double Road Entrance), Bangalore – 560 004, Karnataka. Ph: 080 65624197, email: jk_society@rediffmail.com

Contact: Executive Officer, Jaivik Krishik Society

JKS is a federation of organic farmers and farmer groups set up to promote fair trade practices in organic farming. It was set up to cater to the needs of organic farms in Karnataka through intervention on production, quality control, group certification, value addition and marketing. It has been authorized by the government of Karnataka to perform duties of promoting organic farming in the state. Some of its activities are creating local growers group, capacity building in organic production, certification, value addition and processing of organic products and outreach programmes.

Most organic farmers of Karnataka find the network and marketing support offered by JKS very useful. Recently, it has received much support from the Govt. of Karnataka and an organic mall has been started by the society at the above address. This may be the first ever organic shopping mall in the country.

(Source: Brochure)

A.R. VIJAYKUMAR

613/1, Shri. Venkateshwara, Nilaya, K.T.J. Nagar, 15th cross. III main, Davanagere- 577002, Karnataka. Cell: 09448944506.

(Source: Visiting card)

NALANDA INTERNATIONAL INSTITUTE

4102A, Galaxia, Diamond Hill, Kowloon, Hong Kong. Ph.: 852 8108 1289, Cell: 91385538/9731503897, Fax: 83445212, Email: Mondi.Ng@nalandaii.com, Mondi.ng@gmail.com, Web: www.nalandaii.org.

India Office: P.O. Bylakuppe, Mysore District 571 104, Karnataka. Ph.: 8223 252919, Fax: 8223 253733.

Contact: Mondi J M Ng, Coordinator for the organic farming programmes at the Bylakuppe Tibetan Settlement.

ACADEMY OF NATURAL FARMING

Farm: Doddinduvadi, Kollegal Taluk, Chamarajanagar Dist. – 571 443, Karnataka.

Office: No. 10, 8th Block, Adhishakthi Road, Shakthinagar, Mysore – 570 0-19, Karnataka. Cell:

9880185757/9845125808, Email: Kailashnatufarm@gmail.com Web: www.the-anf.org

Contact: M.K. Kailashmurthy, Natural Farmer, for details of the academy's activities.

ODEKAR FARMS & ODEKAR FOUNDATION FOR RURAL DEVELOPMENT (OFFRD)

Nandhihalli, Kabbigere Post, Via, Thovinakere - 572 138, Tumkur District, Karnataka. Ph.: 08138-239029

Contact: K.R. Neelakanta Murthy

(Source: Visiting Cards)

FRANCIS XAVIER A.

No. 5, Muniga Layout, M.S. Nagar, Bangalore - 560 033, Karnataka. Ph.: 080-5468418, Email: francisxa@indiatimes.com

Work area: Organic farming, eco-sensitisation programmes, biodiversity conservation, sustainable life styles, counseling.

(Source: Visiting Cards)

PROF. G.K. VEERESH

‘Srinidhi,’ No. 239, IV Main, Ganganagar, Bangalore - 560 032, Karnataka. Ph.: 080 3332482/3546060/3410754, Email: gkveeresh@indiatimes.com

Former Vice-Chancellor, University of Agriculture Sciences, Bangalore

Founder President:

Association for Promotion of Organic Farming (APOF)

U.A.S. Alumni Association, Bangalore

IUSSI –Indian Chapter

Arboriculture Association of India (AAI)

(Source: Visiting Card)

MAGOSAN EXPORTS PVT. LTD

157, Kukkujadka Post, Sullia Taluka -574 212, Karnataka. Ph: 08257-284228, Cell: 09449167728, Email: magosan87@yahoo.co.uk

Ctc: M.G. Sathyanarayana, Managing Director

KEDAR ENTERPRISES

1st Floor, Vijaya Bank, Bagalkot - 587 101, Karnataka. Ph.: 08354-220640/220527/228218

Cell: 9448126348/9845520087

Contact: M.C. Jigalur, honey bee keeper. The honey is tested by C.F.T.R.I. Mysore & BEC step Bagalkot

(Source: Visiting Card)

S. ANAND & V.K. ARUNA KUMARA

‘Chitrachoota’ 14, II Block, I Stage, Vinobhanagar, Shimoga City – 577 201, Karnataka.

He is a member of organic farming cell.

(Source: D.D.Bharamagoudra)

DR UPENDRA SHENOY

Keshav Shilpa, Kempegowda Nagar, Bangalore — 560 019, Karnataka.

(Source: D.D.Bharamagoudra)

BASANAGOUDA S. PATIL

Ward No. 4, At Post Yettinahalli, Shirahatti Taluka, Dharwad District, Karnataka. 582120 Ph.: 08487- 279088

Cell:09448981683

(Source: D.D. Bharamagoudra)

DEPARTMENT OF ENVIRONMENTAL SCIENCE

Bangalore University, J.B. Campus, Bangalore – 560 056, Karnataka. Ph.: 080 22961367(O)/23217963(R), Cell: 9880839109, Email: nandini.sai@rediffmail.com, Web: www.envsciencebu.com

No. R-7, Bangalore University Quarter’s, Opp. B.U. Swimming Pool, J.B. Campus, Bangalore – 560 056, Karnataka.

Contact Capt. Dr. Nandini. N, Reader and Principle Investigator, for advice on Natural Farming and Sustainable Agriculture. She is centrally involved with the Academy of Natural Frming.

KODAGU MODEL FOREST TRUST (R)

College of Forestry Campus, Kodagu District, Ponnampet – 571 216, Karnataka. Ph.: 08274 249370, Email: dipnmpt@sancharnet.in.

The trust works on farm-forestry issues specific to the farming patterns of Kodagu vis – a - vis the rain forests of Kodau.

VAST CENTRE

Adyanadka – 574 260, D.K., Karnataka. Ph.: 08255 270254, Fax: 270686, Email: info@varanashi.com, Web: www.varanashi.com.

Conducts research and trainings on composting and also has a farm with functioning alternative energy working models in place.

KARNATAKA– PGS FARMER GROUPS

SREE

Group of 10 farmers with 23 acres under organic cultivation. They grow tomato, banana and chickoo.

Convener: Rajesh, Vil. Doddamachenahalli, Post.Kommaralu, Vartur Hobli, Bangalore East, Karnataka. Ph.: 080 28441299

SAMRUDDHI

Group of 8 farmers with 17 acres under organic cultivation. They grow capsicum, tomato, chilli and jowar.

Convener: Mr. Muninanjappa, Vil. Chamenahalli, Post. Kommaralu, Vartur Hobli, Bangalore East, Karnataka.Cell: 09242888020.

MUNISWAMY

Group of 11 farmers with 12 acres under organic cultivation. They grow ragi, paddy and mango.

Convener: Mr. Manjunath, Vil. Sulikoti, Post. Kommaralu, Vartur Hobli, Bangalore East, Karnataka.Cell: 09887132201

MARAMMA

Group of 15 farmers with 12 acres under organic cultivation. They grow ragi, paddy and grains.

Convener: Mrs. Muniyamma, Vil.Muddenahalli, Post. Kommaralu, Tal. Domaluru, Bangalore South, Karnataka.Cell: 09980844622

NARAYANA SWAMY

Group of 13 farmers with 25 acres under organic cultivation. They grow tomato, paddy and mango.

Convener: Mr. Ashwath Narayan, Vil. Vijiyapura, Tal.Devanahalli, Bangalore rural District, Karnataka. Cell: 09880079717

ORGANIC CERTIFICATION IN KARNATAKA FOLLOWING THE PARTICIPATORY GUARANTEE SYSTEM (PGS)

Karnataka has 57 organic farmers registered through 5 farmers' local groups. IIRD, the PGS Organic Facilitation Council works through Janodaya Trust to facilitate this process.

Details of these local groups and their organic produce is posted at the www.pgsorganic.in