

# BHARATHI TRUST

## ANNUAL REPORT 2009 - 2010

### Improvements in the Resource center

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## COMMUNITY RESOURCE CENTER

The resource center is an organic is an organic farming community where crops are grown without the use of pesticides and fertilizers. It is meant to serve as a model farm for the community so that they can understand the age old practices of sustainable agriculture which were used extensively in India. The idea is to lead by example and show the farmers that organic farming is a sustainable form of agriculture which is symbiotic with nature.

**Grown in cycles :** The resource center crops are grown in cycles which coincide with the various seasons. When the fields are not in use, they are tilled and the leaves that are fallen down are added to them. This lead to the decomposition of the plants which provides nutrients to the farm. **It also allows the farms to rejuvenate and recover the nutrients used up in the last cycle.** The fields are now getting ready for the next season of crops.

**Water for the crops :** The crop planting season begins right after the first rains. Although, the resource center has a well and a bore well, by waiting for the rainy season they conserve the ground water.

**Migrant Field workers problem nearly solved :** Mrs. Arokia mary ,B.com(field organiser) is looking after the pallipattu model organic centre, the records of staff engaged in organic centre is maintained by field organizer. Staffs working at the model organic farm are listed below.

Sl. No	Name	Designation
1	Mrs. Arokia Mary	Field organizer
2	Mr. Pedhappa	field worker
3	Mr. Govindan	field worker
4	Mr. kannan	field worker
5	Mr. Babu	field worker
6	Mr. Kumar	field worker

1 extra worker who is paid daily wages for water tank cleaning, manure making, leveling the ground etc.

**Monthly meetings held at the farm by the organizer :** To discuss about the improvement and development of the organic center. Main improvements:

1. **Purchase of dry grass for cows :** Feed for cow in non-summer weather when taking cattle to graze is tough and grass is not healthy too.
2. **Purchase of modern equipment :** Tripler machine to engage water spraying over the field and decided to purchase the same in a weekly meeting.



3. **Handling weeds :** To remove all weeds and collect the same to be used as pesticide.
4. **Non-agricultural activities :** Improve other activity on the farm like computer education, sewing. There are 3 tailoring machines at the farm now and a local person comes over to teach.

**Analysis on the outreach :** Every year, at-least 40 farmers are being educated on organic farming. The process is a slow one. In Tanjore where Namalvaar works, it took about 15 yrs to see a change in that area.

**6 of the neighbouring farms got together to certification for their respective farms.**

Siddamma has experienced in the past that when the government has no option, they come back to Siddamma and the sarpam. It's only a matter of time. Even the local doctors have started advising about use of organic vegetables.

**Income to the farm :** Currently, some income is made from sales of vegetables, paddy, ragi, sunflower seeds etc. All sales are now provided with receipts. So accounting is done correctly. After few years, Siddamma plans to **charge the farmers** after few years and that itself will be a good source of income. Plans to use some small income by **setting up a diary**. Small income from **tourist** as well.

## Seed Nursery / Vegetable nursery (0.5 acre) :

1. The nursery is surrounded by “neri” plants which have dense leaves and serve for **dual purpose**, where they act as **wind-breakers** and also as manure for the field. These plants have **ribosome** which also helps provide nitrogen to the soil, while the leaves are added to the soil once on the field has been used.
2. There are also some **particular weeds** which are allowed to grow with the seeds have **triple purpose**, these weeds provide **nutrition** to the soil and provide **natural pest control**. These also provide some additional benefits; some of these weeds are actually used as **natural rodent killers** while not harming any other animal.
3. Another interesting technique used is to **grow multiple crops in the same field and not growing the same plant next to each other**, like growing eggplant. This ensure that the same nutrient does not get exhausted and any pests which affect on a particular plants are susceptible to citrus cancer which does not spread to non-citrus plants like eggplant.
4. The plants are **cultivated in rows and are separated by plantain trees** and weeds which provide natural nutrients and prevent the spread of pests.
5. The nursery provides a **natural supply of seeds which reduces the dependence on seeds from outside the farm**. It also allows them to weed out the plant which is more susceptible to infection.
6. **Large number of insects** in the nursery including grass hoppers and bees. These insects help transfer pollen and live **symbiosis** with the plants.

**Plants grown at the nursery :** The plants currently being grown in the nursery include tomatoes, eggplant, drumstick, gourd, bitter gourd, spinach. The food crops being grown are ragi, jowar and paddy.

**Future plans :** To integrate this seed nursery with the Tamil Nadu Agricultural department.

**Problem faced :** Huge number of wild pigs in the neighboring region.

### Single Sapling (Othanatham):

Paddy cultivation method in which paddy sapling is not planted as clusters as in traditional methods, but is planted as a single sapling, each 10 – 12 inches away from each other. This method requires land to be irrigated with **ample water (2 inches of water at least)**. **Vermi-compost** is sprayed **once a week** which serves as a fertilizer.

#### Paddy field Field is prepared for Plantation



Water is sprinkled in the field using the sprinkler



*Paddy field during the Harvest*



*Paddy field after the Harvest*



## Banana Plantation (0.50 ACRE)

A new method is followed for growing banana tree. After **300 days**, it will give yield. In between banana trees, seeds of cow food, grass are laid. After using this method, **we get grass as fodder for 20 cows, use of water is low and it is economical also.**

### Fully grown Banana Trees



**Problem faced :** During the windy season, more than 15 plantation trees get uprooted in the wind. The problem with amla trees. Need for better precautions and put up wind breakers for this region as well.

### **Vegetables (3 acres):**

Beet root, onion, carrot, tomato and green chilly are planted in 3 acre and green grasses are grown for feeding cows. 10 numbers of Mango trees and several numbers of teak wood plants are also planted.

### Vegetables and Fruits grown in Model Organic Farm





The main purpose of the organic centre is to promote proper training to the farmers in turn they will use the techniques in their own farm in order to get benefit. The farmers from suburban areas started visiting model organic farm.



## Storehouse

The storehouse was in good shape and they have been storing grains which are in excess after internal consumption. The long term goal is to be able to sell these to the markets. There was **rice which had recently been harvested and was drying**. There is also large storage containers were rice from previous harvest was being stored, a large number of **sintex tanks** were also there for the same purpose. Hay from the **last harvest and fodder** were also stored for the cows to eat.



## Cowshed

The cowshed was being used as a shelter of **10 cows** in it. Now there are **17 cows**. These included 4 calves, 2 cows for purposes of milk and the rest were for tilling the fields. The cow dung is used as manure and is removed periodically.



**Problems faced due to small cowshed** : In the end of November-2009, all the cows and buffaloes effected by **komary disease** . But our Bharathi trust informed to this to veterinary department and veterinary doctors group came from nochily town immediately and they gave good treatment for all the cows and buffaloes. After the treatment they came to the normal and safe now. **No veterinary doctors in the neighborhood and the government help is also minimal.**  
**Important to safe guard the cow.**

A cow feed given to rabbits (**muyal masala**) is given to these cows to recover from this disease. Monthly collection of this feed from the government supply units.

### **Panchakavya tanks (2 in number)**

There were 2 panchakavya tanks which are made of concrete. Panchakavya is a concoction prepared by mixing five products of cow. The three direct constituents are cow dung, urine and milk; the two derived products are curd and ghee. These are mixture which is made using yeast as a ferm enter, bananas, groundnut cake, and the water of tender coconut, is a potent organic pesticide and growth promoter.

### **Compost tanks**

The compost is grown in cycles were at any given time 2 tanks are in use while others are been prepared for next season. **The composting pit is made of bottom layer of clay followed by next layer of green leaves from plants. These leaves are then covered with some top soil and cow dung which is then made a bit firm.** Then some earth worms from previous batches are introduced here. The earth worms tend to dig from the top soil all the way down to the leaves which they consume.

The earth worm excrete is which is rich in nutrients and is what end up being the compost. The earth worm also churn the soil as they move up and down this make the soil porous. **The pits are covered by mesh to prevent birds and lizzard from eating the earth worm.** There is also a layer of **anti-repellent since ant** tends to kill the earth worms by biting them. The composting process usually **takes 6 weeks** after which the composed is spread in the field. The earth worm also re-introduced in to the field. This allow for natural compost production in the field itself.

## QnA from March 2010 update

1. Question: Why do we have to buy a cow? Since cow is more costly... Why can't we use a buffalo which is cheaper? Is there something specific about a cow? Mostly its the cow products that are used at the resource center.

A goat can also be used instead of a cow but the quantities are way too less with a cow. The quantity from one cow is equal to quantity from 15 goats. The cost of one cow is Rs.20,000 while the cost of one goat is Rs.3000. So a cow works out better in terms of cost.

2. How long do they take for farmers to move to organic farming?

Typically takes about 2yrs to 3yrs to completely convert to an organic land from a land which used chemical fertilizers. In Tamil Nadu in particular, the government officials are anti-organic farming. So, it will take a while to convince the farmers to change.

3. Kiran asked what can be done to provide consumer awareness.

More than 50% of the people in India are already aware of organic food. Cost is a concern for most folks. The cost is due to the long process of organic farming.

4. Kiran suggested making it a tourist point to generate revenue. What kind of framework will Siddamma have to generate a self-sustainable model? Savi to setup conference call to discuss this in detail.

Siddamma has been thinking along those line too . After few years. Siddamma plans to charge the farmers after few years and that itself will be a good source of income. Siddamma has experienced in the past that when the government has no option, they come back to Siddamma and the sarpam. Its only a matter of time. Even the local doctors have started advising about use of organic vegetables.

5. What ways can make the lighting greener?

There is no usage of plastic in the resource center. Only chemical used now are only soap and shampoo by fieldworkers. 2 yrs back chemical was used to drive away insects from the teak tree but now fire is being used to drive away those insects.