

PUNJAB'S TRYST WITH NATURAL FARMING

Punjab, the birth place of the green revolution and the biggest user of pesticides and fertilizers in the country took its first tentative steps of moving towards organic practices about a decade ago when several progressive farmers started converting their farms to sustainable methods. This prepared the ground for what today has taken on the nature of a mass movement, at least in a few districts of the Punjab and is sure to catch up in the rest of the region.

A social movement with deep empathy for nature and compassionate concern for the destroyed ecology, destructed landscape, devastated natural resources, farmer debts and suicides, terminal illnesses, etc., was born about seven years ago. The Kheti Virasat Mission drew its inspiration for a voluntary commitment to make Punjab pesticide free, debt free, disease free and sorrow free and to restore its environmental health and peoples' wellbeing from Guru Nanak's message of – Well being for all life forms – 'Sarbat da bhala'.

Many people have been key players in this happy turn of events. During the initial phases, KVM invited several organic/natural farming experts from all over India to build awareness among the farmers of Punjab. Manohar Parchure and Ram Kalaspurkar have been significant contributors -touring the state, meeting farmers, raising awareness- preparing the 'ground' for a changeover.

Assistance and whole hearted technical support have come from innumerable well wishers from varied backgrounds, professional positions and institutions. CSA's (Hyderabad) technical contribution has been significant. Dr. T. P. Rajendran, Devinder Sharma, Dr. G. V. Ramanjaneyulu and his team, Kavitha Kuruganti, Subhash Sharma have contributed to turning a significant portion of the Punjab farmscape from a chemical green to a natural green.

A great many farmers who have converted to natural methods have been greatly influenced by the practices propounded by Subhash Palekar of Amravati, Maharashtra, an ardent promoter of natural farming.

The movement has taken on a campaign like mode and the pace is of one who is working against time and tide. This is in a sense true if one were to go by facts and figures. Punjab farmlands for quite some years now have been in a state of progressive ecological degradation. The cost of farming has become unsustainable. In the past two decades, farmers' suicide rates have been high. According to the 2004 survey by the Punjab government, 2116 farmers have taken their own life since 1990. The Bharatiya Kisan Union however pegs the figure at 13,000 between the period 2000 and 2005. The National Sample Survey Organization in its 2005 survey on 'indebtedness of farmer households in Punjab' revealed that on average, each farmer household carried a debt of Rs. 41,576 against its name. The Organic Farmers Council that was promoting organic farming did not help much as the organic farming inputs being recommended by them came from external sources. Inputs like vermicompost etc., were being purchased by farmers instead of being generated on farm.

Natural farming as propounded by Palekar has introduced farm-made inputs to keep the soil pest free while practices of mixed cropping, mulching and keeping the soil covered have helped to maintain its nutrient balance and decrease the consumption of water by 40%. Today, 1214 hectares of farmland in Punjab is under natural farming a la Palekar.

Natural farming promotes fermented mixes of cow dung and cow urine. The scientific rationale being- micro-organisms developed during fermentation attract on-farm earthworms which work on the soil leaving it puffy, soft and aerated. Localised indigenous worms have proved to be the best for the soil of Punjab. Gobar and Gomutra of indigenous breed of cow like Sahiwal, Tharparkar and Rathi give the best results in natural farming. One gram of dung of a desi cow contains 3000 million bacteria as against 5-6 million bacteria in the same quantity of dung of an American breed cow. Also the smell of the dung of local cow breeds keeps away visiting herbivores like neelgai and rabbits that sometimes are a menace on the farm.

These natural farming techniques, grounded soundly in self confidence, plant and animal biology and ecology have worked well for the farmers of Punjab. It seems the converted farmers of Punjab are here to stay if for nothing else, then for the simple reason that the produce is fetching a premium. For the Punjab farmer natural farming is making both ecological and economic sense.

In a deeply spiritual state, a spiritual journey of another kind has begun.

(Reference: Web resources, K.V.M., www.downtoearth.org)

KHETI VIRASAT MISSION (KVM)

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Kheti Virasat Mission (KVM) is a not-for-profit, civil society action group working on organic farming issues since 1998. It was registered as a trust in March 2005. KVM enjoys the patronage and support of eminent experts and personalities from the field of environmental health, medicine, agriculture, ecology etc. Its mission is to return ecological stability to Punjab through sustainable agricultural practices. KVM has a strong grassroots presence among the farmers of Punjab. Its outreach, training and awareness programmes have influenced the conversion of 20 farms to natural/organic farming, another 200 are under conversion process and over 500 have taken a step forward by growing organically for self consumption.

KVM has two distinct functioning bodies: Vatavaran Panchayats and Environmental Health Action Group (EHAG). EHAG is a forum for physicians, medical professionals and experts of life sciences to take up issues of environmental health.

Over the last few years, KVM has set up several village-level participatory forums called Vatavaran Panchayats (comprised mostly of farmers) seeking local holistic ecological solutions. Model natural farms are being setup. These farms serve dual purposes; as research laboratories for experimenting with new techniques and refining existing natural farming techniques and as 'paatshalas' (schools) for farmers.

Vatavaran Panchayat has its units in most districts in Punjab. It may be rightly called a peoples' initiative for grass root propagation of natural farming, conservation of natural resources and ecology through voluntary participation and contribution.

For promoting the use of indigenous seeds, community seed banks have been set up at the village level. Each seed bank serves a cluster of villages. They undertake conservation,

multiplication (both in-situ and ex-situ) and distribution of seeds. Construction of water harvesting structures is being initiated particularly in Malwa.

The organic crops and processed products of the KVM farmers may be collectively listed as follows:

Rabi : Wheat, mustard, coriander, methi, metha , masoor, black gram, potato, radish, carrots, peas, barley, oats, onion, turnip, saunf, ajvaine, palak, sunflower, cauliflower (gobhi), cabbage, chukandar, garlic; horticulture produce: citrus family fruits - keenow and malta, and others - ber, avala; oil seeds - taramira, halon, alsii.

Kharif : Cotton, paddy, basmati, maize, green gram, arhar, urad, groundnut, soybean, bazra, castor , jawar, kaddu, okra, brinjal, cowpea, lauki, pettha (pumpkin), ram tori, tomato, kakdi, kheera, lobiya, brinjal, gawar, bhindi, chilli, turmeric , sugarcane, etc. Fruits: jamun, guava, peach.

Organic Products: Biscuits, besan-gram flour, dalia, moth dal, bazra flour, bazra dalia, corn flour, wheat dalia, gulab jal, basmati rice, lady's finger seeds, mustard oil, gur, shakkar, desi ghee, sharbat, rice, wheat atta , desi moong dal, sewian-vermicilli. Quilts, razai and pillows from naturally grown cotton.

On farm participatory research by farmers is taken up under Vatavaran Panchayats.

Studies on reproductive health crisis, health impacts of pesticides and environmental impacts of coal based thermal power plants are taken up by EHAG.

KVM brings out a Punjabi journal, 'Kudrati Kheti' and has published several booklets for awareness and education.

Umendra Dutt says: 'Though KVM is registered as a charitable trust, it is more of a farmer centric ecological movement. It is the only one totally devoted to establishing ecological agriculture in the Punjab. The collective backing and mass support of farmers, farmers' groups, medical professionals, advocates, mainstream and (other) scientists, bureaucrats, academicians, etc., has given KVM the strength to earnestly present the case of ecological agriculture in Punjab. With a small fleet of full timers and a wide spectrum of voluntary supporters, KVM has established a strong, capable and penetrative civil society organizational structure. It works on all components of farming crisis in Punjab and is presently organising an assertive nationwide campaign against Bt brinjal.'

(Source: Communication with OIP)

Organic Farms

AASHISH AAHUJA

Vill & Post Khubban, Teh. Abophar, District Ferozpur, Punjab. Cell: 09417096709, Email: haldighati@gmail.com.

Aashish Aahuja comes from a farming family and has a 30 acre farm. He has been farming organically for the past three years using natural farming techniques of Subhash Palekar. His farm is irrigated using canal and tube well sources. He has never been involved in chemical farming before. He grows wheat with companion crops, rice, vegetables, green gram, mustard, basmati rice, citrus fruits. Bajra is grown for animal fodder only. The farm inputs are biogas

slurry, ghan jeev amrita, jeev amrita and farmyard manure etc. He maintains a number of cows and buffaloes. His crops are protected using herbal repellants and trap crops etc. The only difficulty he faces on the farm is the reluctance of labour to do labourious farm activities. The surplus produced is directly marketed and sent to the local mandi. He gets a good premium price for his produce. His produce is also labeled organic. Initially the yield on his farm was not very encouraging but with persistent use and full-fledged implantation of natural farming techniques the output is now satisfactory.

(Source: Kheti Virasat Mission)

AMARJIT SHARMA

Vill & Post Chaina Teh. Jaitu, District Faridkot, Punjab. Ph.: 01635 290132, Cell: 09463550720
Amarjit belongs to a farming family and has been farming on 5 acres of land for 25 years. He switched to organic farming 4 years ago. His farm is irrigated by tube well. Failure of chemical farming and the adverse effects of pesticides and fertilizers on his farm made him switch over to organic practices. He grows wheat with companion crops, cotton for commercial purposes and vegetables for domestic use. Jowar and bajra are grown for animal fodder. He follows natural farming techniques of Subhash Palekar and uses biogas slurry, ghan jeev amrita and jeev amrita for inputs. He maintains two Indian hump cows, two buffaloes and one ox. He laments that labour is expensive and also unwilling to work on elaborate farming practices. To deal with pests he uses herbal repellants and trap crops. The farm surplus produced is sold to mandis and also through direct marketing. Initially when he shifted to organic there was a decrease in the yield. The yield has stabilized to the same as when he was practicing chemical agriculture. His produce is not certified. A few of his neighbours also practice organic farming. He is happy to have switched over to organic because it has given him peace of mind.

(Source: Kheti Virasat Mission)

GURTEJ SINGH

Village- Khurrampur, P.O. Shahpur (mehatpur) Teh. & District Jalandher, Punjab. Cell: 09915241089.

Gurtej belongs to a farming family and has been practicing farming for the past 10 years on his 9 acre farm. His farm is irrigated through canal and tube well. He switched to organic farming two years ago because he was in search of cheaper and better farming practices as compared to chemical farming. Gurtej grows wheat, maize with companion crops and rice. Jowar and bajra are grown as fodder crops. He follows the traditional farming methods as practised in Punjab and also natural farming techniques of Subhash Palekar. He uses biogas slurry and farmyard manure as inputs and herbal repellants and trap crops for pest control. He maintains one Indian hump back cow, 8 buffaloes and one mixed breed cow and claims he has had no difficulties in switching to organic practices. Excess surplus produce is sold through direct marketing and mandi. His produce is not certified. He says that when he first switched to organic the output decreased. It has now stabilized to the same as before. None of his neighbours practise organic farming.

(Source: Kheti Virasat Mission)

HARJANT SINGH S/O SH.GURDEV SINGH

Vill & Post Rai ke Kalan, Teh. & District Bathinda, Punjab. Cell: 09417620814

After practising chemical farming for 17 years Harjant Singh switched to organic farming 8 years ago because of the adverse effect of chemical farming and also for a sense of well-being and self worth. Harjant Singh has 37 acres of canal and tube well irrigated farm land and hails from a farming family. He grows wheat, maize, jowar, bajra and cotton. His farming practices have been influenced by natural farming techniques of Subhash Palekar. He uses beej amrit, ghan jeev amrita, jeev amrit and also does manual weeding. Biogas slurry is also used as organic input. He keeps sahiwal breed of Indian hump back cows and some buffaloes. He has no difficulties in practicing organic farming. Herbal repellants and trap crops are used to deal with farm pests. Surplus is sold at a premium through direct marketing. He says the output decreased in the beginning but has now stabilized. None of his neighbours practise organic farming. Harjit has this to say regarding his experience in organic farming: 'If you go with nature and treat your field as your children there is no option but for farm yields to improve. Farming naturally is as peaceful as the eyes of a new born baby.'

(Source: Kheti Virasat Mission)

HARTEJ SINGH MEHTA

Vill & Post Mehta Teh. & District Bathinda, Punjab. Cell: 09417507771

Hartej Singh Mehta belongs to a farming family with 11 acres of farmland. The farm is irrigated through canal and tube well. He has been farming for the past 25 years and switched to organic techniques 5 years ago because of the failure of chemical farming and the adverse effects of pesticides. He cultivates wheat with companion crops, cotton for commercial purposes and jowar and bajra as animal fodder for his Indian hump back cow and one buffalo. Biogas slurry and farmyard manure go in as organic inputs. Herbal repellants and trap crops are used for controlling pests. The surplus is sold at a premium directly and also through the mandi. Initially his output decreased but it has now stabilized. There are no farmers in his neighbourhood practising organic methods. Greatly influenced by the natural farming techniques of Subhash Palekar, Mehta says, 'Natural farming is pest free farming.'

(Source: Kheti Virasat Mission)

JARNAIL SINGH

Vill & Post Majhi, Teh. & District Sangrur, Punjab. Cell: 09417146066

After farming chemically for 30 years Jarnail Singh switched to organic farming 5 years ago because of zero input costs in organic practices. He comes from a farming family that owns 8 acres of farmland. His farm is irrigated through canal and tube well. He grows wheat with companion crops. Basmati rice and vegetables are grown for home use. Jowar is cultivated for animal fodder. He keeps a number of cows and buffaloes and uses biogas slurry, ghan jeev amrita, jeev amrita and farmyard manure as inputs. Crops are protected using herbal repellants and trap crops. Surplus produced is sold at a premium through direct marketing and also sent to the local mandi. Jarnail Singh says he has no problems at all in practicing natural farming and

has been improving his yields continuously through innovations and developing techniques to this farmland. Initially his yield decreased but has stabilized within a couple of seasons. His neighbours too are practising organic agriculture.

(Source: Kheti Virasat Mission)

MADAN LAL

Vill & Post Bullhowal, Teh. & District Hushiarpur, Punjab. Cell: 09872092162

Madan Lal hails from a farming family and farms on 3 acres of irrigated land. He switched to organic farming 2 years ago – after 8 years of chemical input agriculture – because he was informed about safe and healthy food and the environmental consequences of chemicals. He practises traditional farming methods of Punjab alongwith the natural farming techniques as proposed by Subhash Palekar. Wheat and maize are grown with companion crops, vegetables for domestic use and jowar and bajra for animal fodder. He maintains two buffaloes, one Indian hump back cow and its calf, one goat and its two kids. Farm inputs are biogas slurry, farmyard inputs, jeev amrita, ghan jeev amrita and for pest control herbal repellants and trap crops. Surplus is sold at a premium through direct marketing and also sent to the mandi. The crop yield has stabilized after an initial setback. None of his neighbours practise organic farming. The problem he faces just now is lack of farm labour, weeds and pest control. He believes that natural farming is the farming of the future.

(Source: Kheti Virasat Mission)

VINOD JYANI

Jyani Natural Farm, Vill & Post Katehra Teh. Fazilka District Ferozepur, Punjab. Ph.: 0163 823302, Cell: 0941723325, Email: vinod-jyani@yahoo.co.in

Vinod Jyani is a big farmer with 130 acres of farmland. He comes from a farming family and has a farming experience of 20 years. He switched to organic farming 4 years ago. His farm is irrigated by canal. Continuous use of chemical sprays, increasing quantity of chemical inputs required and the ill effects on the health of his staff involved in spraying poisonous pesticides influenced his decision to switch to organic farming. His farming practices have been influenced by Subhash Palekar's methods. He uses jeev amrit, biogas slurry, farmyard manure etc. as inputs. Homemade biopesticides and trap crops helps in pest control. He maintains 40 Indian breed cows for supply of organic inputs. All his produce is sold at a premium through direct marketing. Initially his output decreased but focused personal involvement and the use of local seeds, trap crops, nitrogen fixing trees and plants and inter cropping has helped him to get premium yields. He says that interaction between farmers is crucial to the growth, spread and promotion of organic farming. He grows rice, wheat, maize, jowar, bajra, cotton, sugarcane and also maintains citrus orchards.

(Source: Kheti Virasat Mission)

SWARAN SINGH

Village Karamgarh Satran, P.O. Sardargarh Teh. & District Bathinda, Punjab. Cell: 09814963883

Swaran Singh comes from a farming family with 6 acres of canal and tube well irrigated land. After farming chemically for 38 years he switched to organic farming 4 years ago because he was in search of a natural and earth friendly farming techniques. He grows wheat with companion crops, mustard, green gram, black gram, cotton, sugarcane. Jowar is grown for animal fodder and vegetables are cultivated for domestic use. He has been following traditional organic practices of Punjab and has incorporated some natural farming techniques of Subhash Palekar into his practices. He keeps one Indian hump cow, one ox and one buffalo. Biogas slurry, ghan jeev amrita, jeev amrita, FYM are the farm's inputs. Herbal repellants and trap crops keep away pests. His only woe is unwilling labour. Farm surplus is sold at a premium through direct marketing and the mandi. Swaran Singh says that the key to successful organic farming is hard work. Initial decrease yields were overcome by persisting with natural practices. He says FYM does not make too much of a difference but is responsible for increasing and stabilizing yields during the initial stages of conversion. To him natural farming is all about passion and a way forward and suggests that farmers should use farmyard manure in greater proportion during the conversion period and work towards increasing yields only through natural techniques.

(Source: Kheti Virasat Mission)

TILAK RAJ

Vill & Post Khui kherha, Teh. Fajilka, District Firozpur, Punjab. Cell: 09417338131

Tilak Raj switched to organic farming two years ago after practising chemical agriculture for 8 years. He hails from a farming family with 25 acres of canal and tube well irrigated farm land. His reason for switching to organic was that chemical farming is full of poison and is anti-religion. He grows wheat with companion crops, mustard, cotton. Vegetables are grown for domestic use, jowar and bajra for his animals. He keeps two Indian hump back cows. The farm is based on natural farming techniques of Subhash Palekar. Biogas slurry ghan jeev amrita, jeev amrita and FYM are the farm's inputs. Herbal repellants and trap crops help to protect crop from pests. His farm faces hurdles in the form of unwilling labour, depleting soil fertility and insects. Surplus is sold at premium through direct marketing and mandis. He says his yields decreased initially but recovered stability with use of farmyard manure. He says natural farming is stress free farming but would appreciate if established natural farmers can extend assistance to farmers who have recently ventured into organic practices.

(Source: Kheti Virasat Mission)

UPKAR SINGH

Vill & Post Chakk Desh Raj, Teh. Philaur, District Jalandhar, Punjab. Cell: 09463360294

Upkar Singh hails from a farming family. After 10 years of chemical farming he switched to organic 4 years ago because of the increasing demand for chemical free farm produce. His 4 acres farm is irrigated by canal and tube well. He grows wheat, maize with companion crops, rice, sugarcane, green gram, mustard and basmati. Vegetables are grown for domestic use. Bajra and varsim are grown for animal fodder. On farm he has incorporated natural farming techniques of Subhash Palekar into the traditional farming wisdom of the Punjab. Biogas slurry, ghan jeev

amrita, jeev amrita, FYM, vermicompost etc., are the farm's inputs. Herbal repellants and trap crops are used for pest control. He maintains two Indian hump back cows, two holstein breed cows and a calf, one buffalo, one goat and its kids. Surplus is sold at a premium through direct marketing and the mandi. Initial decrease in production has now recovered. His neighbours too practice organic farming. He says organic farming means dedication and the willingness to work with ones hand. He is convinced that natural farming is the best way one can protect nature, heritage, traditional wisdom, environment and mother nature.

(Source: Kheti Virasat Mission)

BHAKAR ORGANIC FARM

Kalalwala, Teh. Talwandi Sabo, District Bathinda, Punjab. Ph.: 01655 218375, Cell: 09417337602

(Source: Brochure)

The Punjab State Farmers Commission, set up by the government of Punjab has a mandate to examine and review the status of agriculture and allied sectors in the state and suggest measures of economically viable and ecologically sustainable agriculture development.

In its recent report of December 2008 titled 'Organic Farming- Its Necessity: How far it can go?' the Commission talks of the genesis of intensive high yielding agriculture in the state and notes that Punjab accounts for 74% of rice and wheat produced in India.

Stating that organic farming is largely dependent on green manure and inputs from extracts of cow dung and cow urine, the report says as per government data, Punjab has roughly 2 animals per hectare. Total livestock population is less than 9 million for the net sown area of about 4.2 million hectare. To apply full dose of recommended organic nutrients to wheat and rice it would require about 17 animals per hectare. It also highlights that 80% of the rice straw worth Rs. 250 crores of nutrients is burnt annually in Punjab. The total farm yard manure is hardly sufficient for 15% of wheat and 20% of rice production and if one assumes that the state opts for organic then the reduction in food grain production would be a serious threat to national food security.

In conclusion, its recommendation to the government is to adopt organic practices for the cultivation of vegetables and for production of pesticide free egg, meat and milk products.

The report has come under strong criticism from social groups and NGOs in Punjab and from other states across the country.

On the other hand the official machinery is busy organising university level debates to stick to its stand. Agri-Scientists are regularly being quoted in the press with statements of inadequacy and inability of Organic Farming or non chemical agriculture to meet food needs.

It is not at all surprising, given the fact that synthetic chemical based agriculture in India found its greatest patron in the farmers of Punjab.

Habits die hard, sometimes even at the cost to life !

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(Reference: 'Organic Farming – Its Necessity: How far it can go?' and media reports.)