

Organic Coconut Cultivation in India – Problems & Prospects



Agriculture

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ABSTRACT

India has 2.4% of global area, which supports 16% of world human population and 17% of cattle population. Agricultural and allied activities contribute 29% of GDP and employ 69% of total work force (Source: Kisan world, May 2005). Green revolution has been a greatest success story and has brought a spectacular increase in production and productivity in the country. But after initial success, the scenario has changed today with the quest of short terms gains without due consideration of long term sustainability resources particularly soil, water and environment have all now overstrained, and are getting increasingly depleted. Now the concern is to sustain the agricultural and particularly crop production and productivity and take this agriculture sector to frontier without damaging the resources and environment. This results to an alternative system by an optimal, balanced efficient and scientific management of land, water, biodiversity and external inputs. Hence, the system organic farming comes into the scenario.

Introduction:

Agriculture has been the backbone of Indian economy since immemorial. India has 2.4% of global area, which supports 16% of world human population and 17% of cattle population. Green revolution has been a greatest success story and has brought a spectacular increase in production and productivity in the country. But after initial success, the scenario has changed today with the quest of short terms gains without due consideration of long term sustainability resources particularly soil, water and environment have all now overstrained, and are getting increasingly depleted. Once again we are faced with new set of challenges. The changing agro-ecosystem environment has put a question mark before us on the sustainability of production system. This results to an alternative system by an optimal, balanced efficient and scientific management of land, water, biodiversity and external inputs. Hence, the system organic farming comes into the scenario. The word organic means origin from a living things and farming with the philosophy of organic is to make productive system alive with long life.

Coconut

The most important and economically valuable produce of coconut palm is its fruit popularly known as 'nut'. It is made up of an outer exocarp, a thick fibrous fruit coat known as husk; underneath lays the hard protective endocarp or shell. Lining the shell is a white albuminous endosperm or 'coconut meat' and the inner cavity is filled with a clear sweet refreshing liquid called 'coconut water'. The kernel of a matured nut is the most precious product used for edible purpose. The dried kernel or copra is the richest source of edible oil and a by-product coconut oil cake, a source of vegetable protein used as an ingredient for livestock feed. The shell as such is used for fuel purpose, shell gasifier as an alternate source of heat. Coconut fruit energy, making handicrafts, ice-cream cups and other commercial products like shell powder, shell charcoal and activated carbon.

Coconut Scenario

Among the oilseed palm trees, coconut palm hardly needs any emphasis on its multi-utility significance. The economic importance of this tree crop is evident from the fact that it is grown in more than 90 countries across the world in an area of 14.231 million hectares producing about 57.514 billion nuts or 10.52 million tonnes of copra. However, Philippines, Indonesia, India and Sri Lanka account for 78 per cent of the area and produc-

tion. India ranks third on world coconut map and in recent times became the largest producer of coconut with the production of 16.9 billion nuts from acreage under plantation of about 1.89 million hectares. Even though India is among the largest producer of coconut with a distinction of having the highest productivity of 7779 nuts per hectare as against 3630 nuts per hectare in Indonesia and 3859 nuts per hectare in Philippines, the per capita annual availability of coconut estimated to have been 10 nuts only which is quite low compared to 222 of Philippines, 145 of Sri Lanka and 55 nuts of Indonesia. (Source: Coconut Development Board)

Coconut Productivity States in India

State	Productivity (nuts/ha)
Tamil Nadu	11620
Andhra Pradesh	8296
Kerala	5793
Karnataka	5204

Source: Coconut Development Board, 2010

Organic Coconut

Many people have the perception that chemicals are not used in growing coconuts. Hence they think that all coconuts available in the market are organic or natural coconuts. There is a wrong belief that coconuts are mostly obtained from the wild in tropical countries, which is not true in organic coconut farming. In worldwide, for coconut cultivation inorganic chemicals are used. Hence not all coconuts are organic coconuts or natural coconuts. Inorganic fertilizers, pesticides, herbicides and fungicides are used in growing coconuts as well. For example, according to the Coconut Development Board, India rhinoceros beetle is the most common coconut pest in India. This can be controlled using chemicals such as sevidol (a mixture of sevin and BHC), naphthalene balls, and carbaryl. But in organic coconuts, chemicals such as inorganic fertilizers, pesticides, etc., are not used. An organic coconut farmer uses organic means in growing the coconuts. The organic coconut farmer cultivates organic coconut has to ensure that the coconuts are cultivated organically in nature.

Production of Organic Coconut

Being a small holder's plantation crop grown in 1.89 million ha area in the tropical belt of the country extending throughout the peninsular India comprising of Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, Goa, parts of Maharashtra and north eastern regions, the coconut palms plays very vital role in the livelihood of millions of people. The major socio-economic features in which this crop is cultivated include predominance of small and marginal holdings, medium to resource poor farm environment and less marketable surplus.

The national average productivity of coconut in India is very low (around 40 nuts / palm / year). Declining productivity is attributed to the exhaustion of nutrients from soil due to continuous mining of nutrients by the palm without sufficient nutrients inputs. Hence in order to have a sustainable coconut production, practising organic farming is indispensable. Application of organic manures such as Vermicompost, crop biomass, raising and incorporation of green manure legumes in coconut basins, green leaf manures such as neem, pungam, glyricidia, bio-fertilizers, cultural practices like mulching, half moon bunding, catch pit preparation etc., are some of effective low cost organic practices which are effective in utilization of natural resources for enhancing coconut production in a sustainable manner.

Importance of Organic Coconut Production

1. Higher demand in global markets for organic coconut products like tender coconut, coconut oil.
2. Improve the country's average nut yield/tree/year.
3. Minimizes the water requirement of a tree.
4. Insects and diseases attack will be in the balanced ratio which lowers its management practices.
5. Copra weight is higher than in the conventional farming which provides high returns to farmers, even though if the yield of nuts/tree/yr is comparably low with any highly advanced chemical farming.
6. Sustainable production by increase in soil fertility and nuts yield gradually per year.

Problems in Organic Coconut Farming

1. Marketing facility is not available exclusively for organic products.
2. Conversion period is longer for obtaining organic certification.
3. Higher risks are involved in obtaining of European Standard of Certification for exporting organic products. For exporting of organic products, supply of sustainable quantity and quality product should be more.

Conclusion

The increase in food grain production was achieved with high input cost and now, it also results in soil fertility loss, demanded larger quantities of fertilizers and pests became immune and require the farmers to use stronger and costlier pesticides. Due to increased cost of farming, farmers fell into the trap of money lenders and many committed suicide. It is also true that output cannot be increased with the inputs we are using. Now it is required to follow sustainable agriculture through the process of organic farming. Doing proper organic practices in Coconut cultivation with extra care in the 1st year of conversion period, the yield loss will be only 10%. We will be able to get yield, not less than the conventional farming in the 2nd year of conversion period and from 3rd year onwards we can able to get an average yield increase a year after year.

REFERENCE

- Agriculture Today (2006), "Organic Farming Myths & Facts", March 2006. | • Farmers' Forum (2012), "Organic Farming – Need, Concept and Merits: A Review", Sep 2012. | • Farmers' Forum (2012), "Organic Agriculture: Global Status: Issues and Prospects for India", May 2012. | • Indian Coconut Journal, vol. no.2&3, June & July 2011. | • Kissan World (2011), "Organic Agriculture – A Good Quality of Life for All", Jan 2011. |