

SUPPLY CHAIN CHALLENGES FOR PRODUCERS

**BHARAT MASKAI
LAXMI ENTERPRISES**

CHALLENGE

India is the largest producer and consumer of spices in the world.

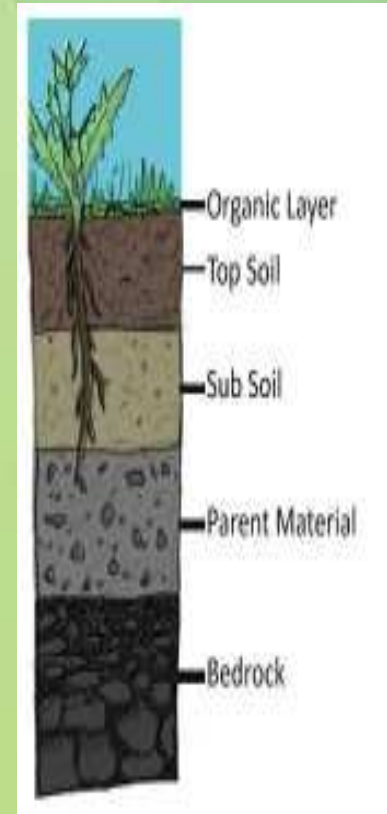
Hence, it is a responsibility and challenge for India to provide sustainable supplies to the world and providing a sustainable agricultural income to the farmer, without having any adverse effects on the environment.

SOIL TESTING

At present, the soil is not systematically tested and usually the experiments are based on the 'once done' soil test results.

A suitable database needs to be built up with the cooperation of farmers, agricultural specialists, soil testing laboratories and Government organizations.

Possibly by enriching the soils with the deficient factors we may pave way for prevention of several viral attacks.



SOIL MANAGEMENT

Soil management would consist of nutrient management, correct crop rotation, and any such practices.

With the world demand moving away from usage of chemicals, special practices like summer ploughing attains utmost importance as that would expose more layers underneath the upper layer of the soil to sunlight thereby reduce insects.



SEED VARIETY

Several seed companies are coming up with a lot of varieties, hybrids, which are claimed to be yielding more and with pest resistance.

Genetically modified seeds such as Bt cotton have met with limited success, and it is not advisable to grow spices genetically modified.

No one really knows the impact of the GMOs especially the teratogenic effects and so on.

Noteworthy, however, is the encouragement given by the Agricultural department for cleaning of seeds in order to avoid pests .

HARVEST PRACTICES

The farmer needs to be educated and trained to follow correct and healthy post harvest practices thereby reducing the risk of fungal growth and thereby avoiding the aflatoxin menace.

Similarly, correct drying practices in coriander led to raw materials having higher volatile oil and thus enhancing the quality of the product.

These practices would make the farmer, more commercially successful.

HARVEST PRACTICES

By having the farmer participate in the "Lab to Land" and "Land to Lab" programme whereby showing the farmers the analysis, would directly result in higher awareness.

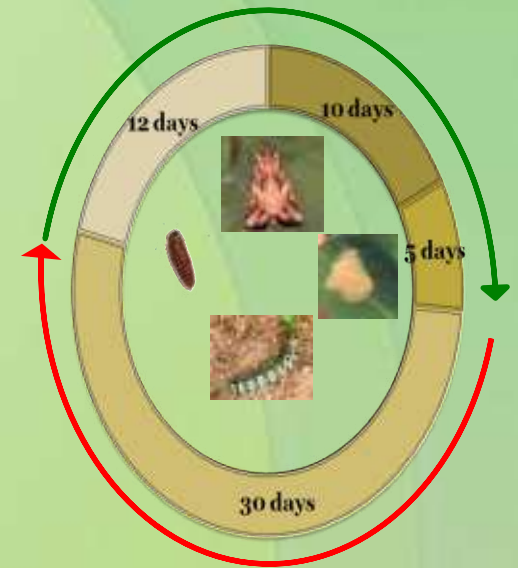
The farmers should be encouraged to use only organic extracts (after a gradual replacement from Synthetic fertilizers) and would see the benefit from both health and environment, savings on pesticides costs apart from higher income leading to sustainable agriculture practices.

Animal husbandry shall also help maintain the ecological balance.

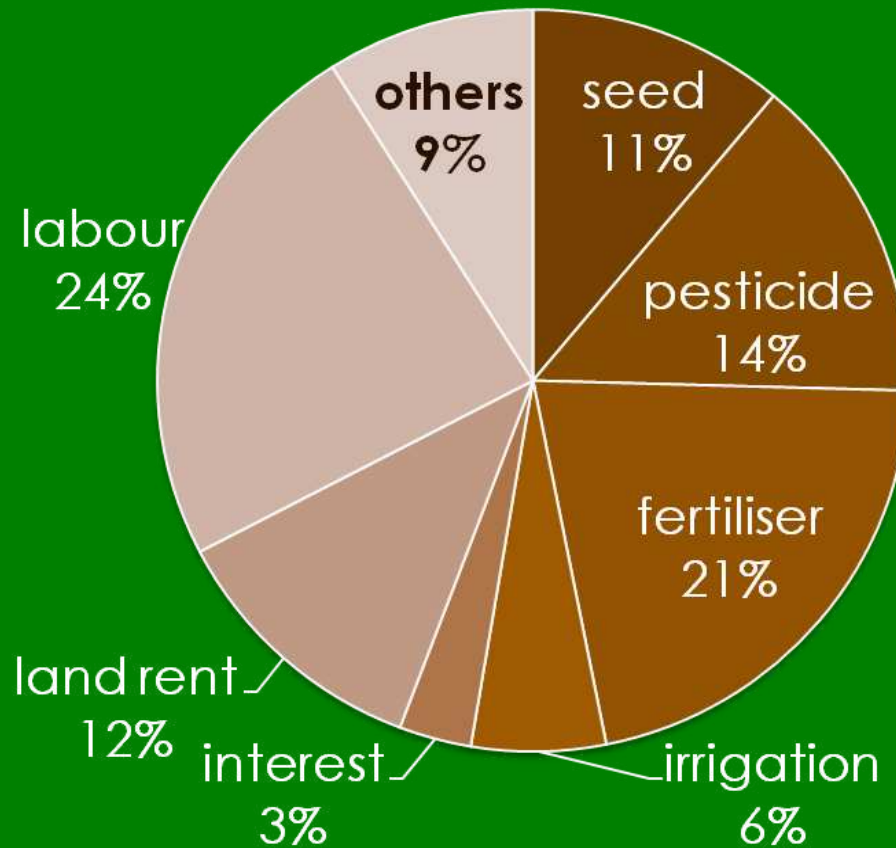


CAPACITY BUILDING ON

- **Life cycles of pests** and enabling climatic condition for disease prevalence and spreading need to be studied
- **Radical soil moisture conservation**
- **Integrated Farming systems**
- **Sustainable use of resources**
- **Maximizing output from a unit land**
- **Effective utilization of inputs like Seed, non chemical fertilizers, sunlight, water, land, etc.**
- **Conservation of Renewable Natural Resources & Genetic bio diversity both flora and fauna**



COST OF PRODUCTION FOR SMALL AND MARGINAL FARMERS IN AP



Pesticides and Fertilizers account for $>1/3^{\text{rd}}$ of Total Cost of Production

Source: *NSS Report No. 497: Income, Expenditure and Productive Assets of Farmer Households, 2003

INCREASING COST OF LABOUR

The lower usage of chemicals would save money for the farmer.

Due to the rapid growth of the Indian economy and alternate job opportunities, the labour cost has seen unprecedented rise.

The Government scheme called NREGA has also resulted in higher costs of labour .

Labour welfare measures have also resulted in pushing costs.



INCREASING COST OF LABOUR

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Punjab farmers rue lost manpower

Sachin Parashar | TNN

Sheikhan Majra (Mohali): As he languidly points to the sea of green behind his back, a vast expanse of wheat field being tended to by a sole worker, Kulwant Singh is a worried man. A Jat Sikh farmer (simply a Jatt), Singh owns 25 acres of land in his village.

Come March and the harvesting of wheat will begin in the state which has, in the not so distant past, accounted for one-fifth of the country's total wheat and rice production. With the lush green fields again promising a golden harvest, Singh had even celebrated Lohri with typical Punjabi gusto. He is not in the mood to celebrate now.

"It's that time of the year when I need 25 people on my field; I have found only one until now," he says, as he nervously twirls his moustache. Most of the men who worked in his fields until a few years back were either from Bihar or Uttar Pradesh but they have vanished now.

"An acre of wheat cutting by hand cost me Rs 500 but with the machines now it will cost me Rs 3,500. Also, almost half the crop gets destroyed with machines," he adds.

He blames UPA's flagship project MGNREGS for his plight. This, when the job scheme promises a minimum wage of just Rs 120 compared to Rs 250, even Rs 300, which Singh is willing to offer. "They say Rs 120 in their home is better than Rs 250 outside," he says.

Inflation in India is often linked to "supply-side factors" and the sliding agrarian Punjab economy is an eye-opener. The average debt per

farmer is already close to Rs 20,000 and with the youth in the state showing no inclination for agriculture, the situation is likely to worsen with the absence of migrant labour:

"The green revolution petered out earlier but the absence of migrant labour from all across the state has led to further decline. The government only comes up with excuses like Punjab not getting



ONE MAN ARMY? Migrant labourers from UP and Bihar have made a beeline for home, lured by UPA's MGNREGS scheme

special status like Himachal and Uttarakhand and lack of more central assistance which obviously means subsidies," says Prof Ashutosh Kumar, who teaches political science in Punjab University.

The farmers of Sheikhan Majra, mostly Jatts, are still with the ruling SAD though. Traditional SAD voters, they say they believe the father-son duo of Parkash Singh Badal and Sukhbir when they say that they will get imported machines to ensure harvesting is smooth and cheap.

Ironically, MGNREGS, which has helped the government deal with poverty and unemployment in other states, has failed miserably in Punjab with hardly one-tenth of the funds meant for the state being utilized mainly because the average unskilled worker makes much more in prosperous Punjab than the minimum wage guaranteed under the scheme.

"The scheme was meant to help states but it has ended up hurting Punjab," is the clincher from Kulwant Singh.



AGRICULTURAL LIVELIHOODS

Paradigm shift:

From the dominant and traditional
“**external input-driven**” agriculture to
“**knowledge, skill-based and local
natural resource**” model

PEST MANAGEMENT - ENSURING NATURAL ECOLOGICAL BALANCE IS KEY TO THE FUTURE



Summer Ploughing

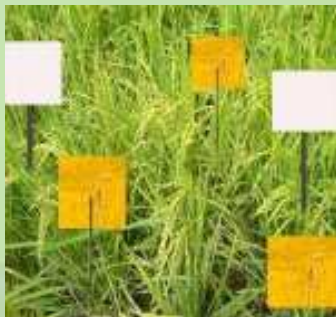


Community Bonfires



Seed and Seedling Treatment

Different types of Traps



White and Yellow Plates



Trap Crops

THE WAY AHEAD

The rapid growth of the Indian economy has resulted in higher purchase power and higher consumer awareness , thus resulting in a demand driven economy.

Larger food companies like Unilever and Nestle have understood the future risks to supply and are thus pushing the sustainable agenda.

Food safety has now acquired highest priority.

The efforts of seed companies, the agricultural scientists in the direction of increase in yields has helped India increase production.

India thus today stands as the largest producer and consumer of spices in the World and has to forge ahead in providing sustainable supplies and sustainable livelihoods to farmers without causing harm to the environment.

THANK YOU

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