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शरद पवार  
SHARAD PAWAR



D.O. No. 2170/AM  
कृषि एवं खाद्य प्रसंस्करण उद्योग मंत्री  
भारत सरकार  
MINISTER OF AGRICULTURE &  
FOOD PROCESSING INDUSTRIES  
GOVERNMENT OF INDIA  
No.4-11/2011 FES-ES

16 SEP 2011

Dear

Sardar Satnam Singh

Kindly refer to your letter dated 8<sup>th</sup> September, 2011 forwarding therewith a copy of the resolution passed by the Consortium of Indian Farmers Association (CIFA) passed by the Consortium on 5<sup>th</sup> September, 2011 seeking declaration of MSP on the basis of the Swaminathan Commission's recommendation. I would like to inform you that the objective of price policy of agricultural commodities is to ensure remunerative prices to the growers for their produce with a view to encourage higher investment and production and evolve a balanced and integrated price structure in the context of overall needs of the economy while safeguarding the interest of consumers by making available supplies at reasonable prices. Government announces the MSPs of various agricultural commodities based on the recommendations of the Commission for Agricultural Costs and Prices (CACP), views of the concerned State Governments, Central Ministries/Departments and other relevant factors considered important for fixation of support prices. The CACP, while formulating the recommendations on Price Policy, considers a number of important factors which, *inter-alia*, include cost of production, changes in input price, trends in market prices, demand and supply situation etc.

Cost of production is one of the important factor taken into account in fixing the MSPs. The cost of cultivation/production includes all paid out costs, such as, those incurred on account of hired human labour, bullock labour/machine labour (both hired and owned) and rent paid for leased in land besides cash and kind expenses on use of material inputs like seeds, fertilizers, manures, irrigation charges including cost of diesel/electricity for operation of pump sets, etc. Besides, cost of production includes imputed value of wages of family labour and rent for owned land. The cost also covers depreciation of farm machinery and buildings, transportation and insurance charges. As such, the cost of production covers not only actual expenses in cash and kind but also imputed value of owned assets including land and family labour.

...2/-

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....Continuation Sheet


...2...

The National Commission on Farmers under the Chairmanship of Prof. M.S. Swaminathan had recommended that the MSP should be at least 50% more than the weighted average cost of production. This recommendation, however, has not been accepted by the Government because MSP is recommended by CACP based on objective criteria and considering variety of relevant factors. Hence, prescribing an increase of at least 50% on cost may distort market. A mechanical linkage between MSP and cost of production may be counter productive in some cases.

Moreover, the MSP is in the nature of minimum guaranteed price for the farmers offered by the government for their produce in case the market price is below that level, if the market offers higher price than the MSP the farmers are free to sell at that price.

Government permitted export of one lakh tonnes of Sona Masuri rice and 25,000 tonnes of Ponni Samba and Matta rice in February, 2011. Subsequently, the export of 10 lakh tonnes of non-basmati rice was permitted in July, 2011. However, the implementation of the allocation of quantities of rice to various exporters has been stayed by the High Court of Delhi on 27<sup>th</sup> July, 2011. On 19<sup>th</sup> August, 2011, the Department of Food & Public Distribution has conveyed its no objection to the Department of Commerce for export of 10 lakh tonnes of parboiled non-basmati rice and 10 lakh tonnes of raw non-basmati rice from private stocks or Central Pool Stocks of FCI and export of another 50,000 tonnes each of 'Ponni Samba' and 'Palkkadan Matta' types of non-basmati rice.

With regards,

Yours *Sincerely*  
  
(SHARAD PAWAR)

Shri Satnam Singh Behru,  
President,  
Consortium of Indian Farmers Association,  
8/32, South Patel Nagar,  
New Delhi-110008.

## **POLITICAL AND SOCIAL LEGITIMACY OF FARMER ORGANIZATIONS IN INDIA AND DEVELOPING NATIONS IN ASIA AND AFRICA**

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### **CAPABILITY TO RELATE:**

1. First of all in a society like India political legitimacy and social legitimacy are two different aspects and thus cannot be placed within one common sentence. For a Farmers Organizations (FOs) in country like India, Political and Social legitimacy is half important. In a complex society like India Political and Social Interests are not same for all the sections and there are sharp differences and at times conflicting interests among various groups situated at various steps of social strata. Political groups generally represent some sections of society and they opine there stand as per these sections which they claim to represent.

2. Political legitimacy is of least important for FOs. FOs is involved in productivity, marketing, policies and other issues of its constituents. At best connectivity with political groups for lobbying purpose is required for FOs.

3. As far as social legitimacy is concerned, social legitimacy as a larger concept is required and a must for FOs but at times FOs in a country like India have to take stand and object to commonly prevalent social perceptions and strive to bring about a change in the same. "Social Legitimacy" can be seen as an added value especially in Indian context wherein social divisions, gender divisions etc. play a key role. Social legitimacy will strengthen the FOs.

4. FOs need not be politically correct all the time. However its actions and process should be well within the legal framework. Thus within the broader aspect of "Capability to relate" the Political and social legitimacy is half important for FOs in Society like India.

5. Integer Leadership and staff (upright, incorruptible and un-discussed) is very important.

While working on farmers issues a FOs need to present a positive and trust worthy face and there should be well placed processes to ensure accountability and transparency in the functioning of organization. Any commodity (producer) Interest Groups (CIGs) Organizations that seeks to represent issues and interests of farmers shall be prepared to face uncomfortable questions from the sections with conflicting interests. An integer leadership and staff is first condition to gain sustained confidence of your constituency. Democratic processes for electing leaders and decision making are pre-requisite.

6. Operational credibility / reliability is important for FOs but again in a complex society like India, credibility / reliability is very relative terms. Also in a developing society organizations evolve such process with time and experience. Operational success has to be phased, prioritizing crops, marketing advantages, consumer preferences etc. hence can be taken selectively. In developing nations policy changes including lobbying should be given preferences over productivity and marketing. In these countries organized sectors get more resource allocation and other facilities due to strong lobby and structure.

7. Participation in coalition is very important for FOs. Farmer issues are generally complex and inter related. These constitute various aspects of issues like land, water, infrastructure, credit, market etc. FOs has to be able to participate and form coalitions helps in developing reach and identity of an organization that further the cause of FOs strength.

8. Partnership programs with external stakeholders are important especially in India. Success of FOs is because of institutionalization of FOs and permanent activity / programmes. Quality of leadership in developing nations is not upto standards to overcome the shortfall. A professional administration / advisory

structure is the key for success and sustainability. It helps FOs develop stronger bargaining power with the authorities.

9. However such alliances should be created as an evolving process and should not be done in haste as it may affect the interest of its own constituency. Such alliances should not be created on unequal platforms. Adequate alliances with external stakeholders are a continuous process and should be promoted and developed as and when it arises. In fact FOs should make a serious effort to identify and establish alliances (ex. Indian Sugar Mills Association).

### **CAPABILITY TO COMMIT AND ACT:**

1. Presence of a work plan decision taking and acting on these decisions collectively is very important for FOs. It helps in optimum utilization of resources and timely delivery of targets, at the same time it also helps in keeping the track of the progress and thus avoiding any distractions from already set objectives / goals. Acting on decisions which were arrived at after due deliberations and building consensus is critical for success of the programme and sustains the organization.

2. However these processes are evolved with time and it is very difficult for FOs in developing countries to adopt to such processes in the beginning phase of organizational development. Sustained guidance, training and mentoring are the keys. CIFA with the assistance of Agriterra has conducted many pilot projects and has succeeded.

3. Effective resource mobilization (human, institutional and financial) is very important for FOs. In developing countries lack human, institutional and financial resources. It becomes all the more important for these organizations to utilize the resources optimally. Again FOs in developing countries lack the quality of resources which makes it more complex wherein the majority of the farmers have small land holdings and limited capacity to provide even the membership fee. Training of human resource, building of institutional resources with well-laid processes and management of financial resources to ensure transparency and accountability requires sustained guidance, training and mentoring as well as the passions for the outcome. Immediate results should not be expected.

4. Effective monitoring of the work plan is very important for FOs. On one hand it helps in achievement of targets and goals as per the plan and

on the other hand is also gives opportunity to review, receive feedback and follow up the actions taken by the organization. Effective monitoring is the key to optimum utilization of resources and provides a base for future plans and organizational growth through sustained learning. It also helps in identifying the areas of improvement for the organizations.

5. Inspiring / action oriented leadership is important for FOs. However in complex and developing countries such leadership is required to be identified, natured and developed through a continuous process of identification and development of leadership skills. Potential is huge but in absence proper training on issues, policies and processes this leadership potential remain unutilized or get diverted to more lucrative professions of service sector, business including politics.

6. Acceptance of leadership's integrity by staff is very important. In absence of such acceptance of leadership, FOs face the fear of losing the credibility and reliability and also the retention rate of staff may drop causing loss of human and financial resources to the organization. FOs leadership and developing nation has many limitations due to "short duration of the office holding". It also confronts the problem of communication skills. Projecting the leader in developing nation is the work if organization / administration. It is therefore essential that a strong support staff is available for the overall success of leadership. Farmers leadership is not a very glamorous activity to attract the attention of one and all.

### **CAPABILITIES TO DELIVER ON DEVELOPMENT OBJECTIVES:**

1. Financial resources are very important to deliver on development objectives by FOs. In developing countries often faces an acute shortage of financial resources and it is one of the major barrier / obstacle in way of delivering on development objectives. Mechanisms to generate resources / support are either unavailable or are difficult to access FOs in countries like India with illiterate and small farmers lacking professional training and exposure to opportunities. Management of these resources is another issue. From maintenance of account, income-expenditure etc. to fund generation, allocation of funds for different purposes and timely expenditure of the same, organizations require continuous support system of education, training and experience sharing.

2. Office Facilities equipments and premises are very important. It facilitates the complete process of organizational functioning and growth. Facilities and equipments helps in real time coordination which further the capabilities to deliver on development objectives. However organizations require thorough training on management of such resources for the given purposes so as to ensure optimum utilization of these. Similarly a premise helps in developing a common centre for coordination and communication and also provides a platform for experience sharing, learning and reviewing the performance. Most FOs in developing countries lack such facilities, equipment, premises etc. and require continuous direct support to develop and manage the same.

3. Human resources are very important for capabilities to deliver on development objectives. FOs in developing countries lack professional and well trained human resource. Identification and development of human resources is very important. Farmer sin developing countries do not have exposure to policy level and decision making processes and market dynamics, expecting them to reflect on these is not realistic. Professionally trained and committed human resource is very important for FOs with aim to enable these organizations to deal, negotiate and bargain with other stakeholders, market and authorities.

4. CIFA supported Agriterra since 2002 has unique distinction of developing many innovative concepts that are new to 600 million Indian farmers e.g. (1) Networking farmers as producer groups and assisting them in organizational and policy matters (2) assisting the producer groups in developing partnerships with industry, research and others (3) establishing a strong lobby with participation by parliamentary members (4) joining the international fraternity.

5. Access to knowledge resources is very important, all the more important is access to right knowledge / information on market, technologies, policies at right time. Creating centres of knowledge / information resources, making these centres accessible to organizations and farmers and developing mechanisms for practical implementation and use of this knowledge / information in the field is challenge in developing countries.

6. Absence of common platforms for knowledge / experience sharing and mechanisms to ensure practical use of this information / knowledge by farmers pose a challenge to organizations. Disconnect

between new discoveries, inventions, knowledge etc. and practical agriculture in the field is very wide in terms of time and access. In developing nations including India establishing a strong inform base will have tremendous advantage for increasing production, providing more income to small farmers and overall economic benefit to the country.

### **CAPABILITIES TO ADAPT AND SELF RENEW:**

1. Understanding of shifting contexts and relevant trends is very important for FOs to adopt and self renew, however scope for such understanding is very limited due to absence of supportive and facilitating environment. FOs in developing countries first need to develop understanding of over all policy and market environment, understanding of shifting contexts and relevant trends comes later.

2. However to be able to adapt to change and to survive in fast changing socio-economic, political as well as climatic environment, understanding of shifting contexts and relevant trends and flexibility to adapt to the same is a must. A permanent mechanism shall be evolved to conduct studies and provide information to the FOs on regular basis.

3. Confidence to change, leaving room for diversity, flexibility and creativity is very important for FOs. Such confidence can only stem from understanding of market and policy environment, ability to respond and timely access to knowledge / information. The fragile farmers in developing countries are very vulnerable and it is becoming increasingly difficult for them to continue in the profession.

4. Expecting confidence of any kind in such situation is not a practical approach however. Risk mitigation and ability to cover for possible failure is the key to confidence to change. Such security and cover is completely absent in developing countries. Crop failure and absence of risk mitigation is the main reason for suicides of over 20,000 farmers every year. It is also responsible for large number of farmers leaving the profession and opting for more secure professions in urban areas.

5. To make FOs confident to change, leaving room for diversity, flexibility and creativity, a minimum security for the time gap required to shift and cover for possible failure with scope for coming back should be provided. It will help in retaining the youth in agriculture sector in India.

6. Use of opportunities and incentives, acknowledgment of mistakes that have been made

and stimulation of the discipline to learn is important if such opportunities and incentives are available and are within the reach of the FOs which is not the case with FOs in developing countries.

7. Next logical step to acknowledgement of mistakes that have been made is using available alternatives options. No such alternatives are generally available. In most cases mistakes are at policy or implementation level and farmers and their organizations are not in a position to bring any substantial change by acknowledging the same. However within the given framework with all its limitations, use of opportunities and incentives, acknowledgement of mistakes that have been made and stimulation of discipline to learn is important for FOs to enhance its capability to adapt and self renew.

8. Systematically planned and evaluated learning, including in management is important but it is a distant reality for most of the FOs in developing countries due to lack of professionals, institutions and mechanisms to design, implement and monitor and support the same. FOs most in their nascent stage of development as professional organizations are challenged by all the dynamics that are part of organizational development process.

9. Systematically planned and evaluated learning will boost the process and increase the capacity of organization to deal with the internal and external issues related to organizations and the sector. Again this should be an evolving process through guidance and support from outside. Inclusion of professionals are required to be processes may benefit the organization, but these professionals are required to be exposed to ground reality and grass root experience before any such inclusion.

#### **CAPABILITY TO MAINTAIN CONSISTENCY:**

1. Clear mandate, vision and strategy, which is known by staff and used by its management to guide its decision making process is very important for FOs. In most cases clear mandate is not lacking but building a clear vision around that mandate remains a challenge for the organization due to absence of understanding of policy and market environments and restricted access to information and knowledge.

2. Developing strategy comes later. Developing strategy around the vision requires understanding of complete policy environment, changing trends and knowledge of ones strengths, weaknesses to bring about desired positive change is there, strategy can

not be developed and implemented. However clear mandate, vision and strategy is definitely a major factor affecting capability to maintain consistency and is very important for FOs.

3. CIFA has initiated a process on above aspects since 2004, at the apex level. Between 1998 and 2004 similar exercise was done at State level by Federation of Farmers Associations, Andhra Pradesh, both institutions are recipient of Agriterria assistance and advice. The experience of L.T.O. Netherlands has helped in shaping many of the policies and strategies. However in the context of India's 600 Million farmers, it will take considerable time, resources to cover the entire country. India can be a model for developing nations to learn from its experiences.

4. A well defined set of operating principles (by-laws) is very important for FOs. This facilitates smooth functioning and helps in avoiding group dynamics and conflicts in any organization. These principles facilitate day to day functioning, decision making process and process and provide a yardstick to organizational growth and development.

5. Leadership committed to achieving coherence, balancing stability and change is important for FOs. Such coherence, balancing stability and change within the organization provides flexibility to adapt and thus helps in maintaining consistency in performance. A coherent team can always deliver better than one which is not. Achieving coherence, balancing stability and change should be transferred from leadership to the members and staff and it should become integral part of organizational functioning.

6. Consistency between ambition, vision, strategy and operations is very important and continuous monitoring, feedback, review system and well placed follow-up processes are the key to it. FOs can develop these processes with time through guidance, support and mentoring from outside. One word of caution here is that this ambition should not be personal and it should be well in tandem with organizational goals and purposes. Organizational goals, objectives, ambitions, vision, strategies and operations should be performance oriented and these should be performance oriented and these should be specific, measurable, achievable, and realistic and time bound. Such processes if laid down and implemented properly helps in developing capabilities to maintain consistency.

**CIFA ACTIVITIES FOR THE YEAR 2012 TO BE GIVEN**

**Sri P. Chengal Reddy**  
Secretary General  
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## COST OF PRODUCTION-LOSS TO FARMER

**NAME OF THE CROP:** .....

### Details of Cost of Production per acre / per quintal / MT

S.No.	Details of Expenditure	Rs.
1	Land Preparation - Tractor Hire/Labour Charges	
2	Cost of Seed per Acre	
3	Nursery Preparation (Labour, Fertilizer etc.)	
4	Transplantation	
5	Cost of Fertilizer and Labour Cost	
6	Cost of Pesticides and Spraying cost	
7	Weeding labour cost	
8	Electricity charges / Water charges	
9	Harvesting Machinery / Labour charges	
10	Cost of Bags - Loading	
11	Transportation to House	
12	Interest on Loans for 6 months / *Sugar 12 months	
13	Land Lease / Interest on Land	
14	Management charges for 6 / 12 months	
15	Transportation to Market	
16	Expenses at Market Yard - Adithiya Commision, Hamali	
(a)	Total expenditure per Acre	
(b)	Yield per Acre Quintal / MT	
(c)	Expenditure per quintal	
(d)	Minimum Support Price	
(e)	Price paid by the hadthiya	
(f)	Net Loss per Quintal / Mt	
(g)	Net Loss per Acre	
(h)	Price Demanded by Farmer as per Swaminathan Formula (Cost of Production + 50% take home) per quintal / MT	

Prepared and Signed by Farmer / Farmers

Name of the Farmer: .....

.....Village & Post

.....District

.....State

## ISSUES FOR DISCUSSION IN SEPARATE PARLIAMENT SESSION – CIFA CHARTER OF DEMANDS

Dear Friends,

Date: 02-11-2011

Given below is the CIFA Charter of Demands for discussion during 8th National Farmers Conference, we invite you to participate or else send your comments/modification/suggestion to above address. This will also be our vision document for the year 2012-13. Please discuss this Charter in your village/group meetings and keep informing CIFA and also initiate your local programs to get it implemented. Ask you MP to write a letter to PM and Speaker Lok Sabha demanding Separate Parliament Session.

1. To discuss NCF (Swaminathan Committee, Hooda Committee and Parliament standing committees on Agriculture) reports especially in terms of MSP at Cost of Production + 50% - Net take Home Income. CACP to be made autonomous and MSP based on price index. Risk mitigation fund to help farmers especially perishables
2. Separate Union Agriculture Budget covering all concerned Ministries.
3. To liberalize cereals marketing and exports. The rice and wheat required for PDS and buffer stocks to be procured in open market.
4. Decontrol Sugar including levy, ECA & releasing and encourage direct ethanol production and power generation/paper production. Cotton to be removed from restrictions and allow free exports.
5. Democratization and Empowerment of Panchayats, Co-operatives, Market yards, Commodity Boards and Water Users Associations.
6. Mechanization to reduce physical drudgery especially amongst women within 3-5 years, Liberal Loans, 50% subsidy & interest at 4%.
7. GOI to provide one time investment for completing 400 ongoing irrigation projects so as to permanently solve rain fed farming issues.
8. Encourage drip irrigation by providing 90% subsidy and also removing taxes on plastics used in manufacturing drip/sprinkler equipments.
9. The National Policy for Farmers envisages Agriculture Coordination Committee under the Chairmanship of the Prime Minister. But so far it is not functional and requires to be made active.
10. To categorize Sona Masoori (BPT) as special superfine non basmati variety and allow free export on par with Basmati so also Durram Wheat exclusion from procurement.
11. Incentivizing private sector including FDI investment in Agriculture Research, IT, GMO, Extension, Retailing and Infrastructure.
12. MGNREGA to be linked to agriculture production activity.
13. Animal Husbandry, especially piggery and Aqua Culture (inland fishery) prioritized for development for Tribal, SCs, Nomads and Fisherman.
14. Establishing Commodity (Producers) Interest Groups at different levels and legalize them by Govt. on par with Labour Unions.
15. To reorient subsidy systems of Public Distribution System, Fertilizer, Water, Electricity and replacing it with cash or coupon system.
16. Reservation for economically weak farmer's families and suicide victim families in jobs and education.
17. To strive for social reforms of removal of un-touchability, integrate castes, equity for girls and curtailing alcoholism.
18. To demand for administrative reforms so as to stop present exploitation by organized sectors.

## INDIAN FARMING AT CROSS ROADS

**Dr. S. Ranganathan**  
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Food is a necessity to mankind to lead a healthy life. As stated by Amartya Sen "hunger is intolerable". India is an Agrarian country with around 60% of its people directly or indirectly depending on Agriculture. After 64 memorable years of Independence, India is proud of its innumerable achievements. To sustain the essence of true freedom the population should be free from hunger. The path to be traveled to achieve hunger-free India is long because the food producers-Indian farmers are the most aggrieved and neglected lot today in the country, which unfortunately is not a welcome sign for the country's development. Can we make the farmers' sufferings history? Do we have the road map to solve their problems?

The Green Revolution concentrated primarily on cereals like rice and wheat. Production of millets, legumes/pulses and oil seeds, which are less water demanding and nutritionally important have remained static. Farmers, who traditionally raised millets, have shifted to growing fine cereals. Over 80% of the country's farming families own less than two hectares. Only 30% of marginal and small holdings are 'wholly irrigated'. It is a blatant fact that three-fourths of Indian farmers take home less than Rs.3,000 a month, which is roughly 50% of the starting salary of a government's lowest paid staff. Falling profitability of farming operations and the growing fragmentation of land holdings make agriculture a losing proposition today.

Can India celebrate the economy boom and higher growth rates when thousands of farmers commit suicide? Agriculture in India is often attributed as 'gambling with monsoon' because of its exclusive dependency on monsoons. The failure of monsoons leading to series of droughts, lack of better prices, exploitation by middlemen have been leading to series of suicides by farmers across the country. According to the National Crime Records Bureau

(NCRB) there were at least 16,196 farmers' suicides in India in 2008, bringing the total since 1997 to a alarming figure of 1,99,132. More than 17,500 farmers committed suicide between 2002 and 2006. At least 17,368 Indian farmers committed suicide in 2009, the worst figure for farm suicides in six years. Most suicides occurred in states of Andhra Pradesh, Maharashtra, Karnataka, Kerala and Punjab. In 2006, the state of Maharashtra, with 4,453 farmers' suicides accounted for over a quarter of the all-India total. While the number of such suicides increased since 2001, the number of farmers has fallen, as thousands abandoned agriculture in distress. Over 5,000 farmers committed suicide in 2005-2009 in Maharashtra, while 1,313 cases reported by Andhra Pradesh between 2005 and 2007. In Karnataka the number stood at 1,003, since 2005-06 till August 2009. In the last four years, cases in Kerala were about 905, Gujarat 387, Punjab 75 and Tamil Nadu 26. In April 2009, the state of Chattisgarh reported 1,500 farmer's suicide due to debt and crop failure. Now the question is how can the country restore the equilibrium without any more such suicides? What are the strategies, technologies and programs that can be formulated to solve the farm sector crisis?

### **Land usage and harmony with industry**

How we use our land is one of the most crucial questions of today. Traditionally man has looked to land to provide him food and has more sentimental attachment by equating land next to God. But today man is choosing to use land in new and complex ways. The gap between potential and actual yields is high in most parts of India; the principles of conservation, particularly with reference to land and water, need to be integrated with farming practices. We have to be very careful about what we do with our land because how we use it will be a major factor in determining our future agriculture. Current initiatives in the industrial sector such as Special Economic

Zones (SEZ), highway malls and other corporate initiatives have triggered controversies relating to the use of farmland for non-farm purposes. It is in the best interest of the nation that agriculture and industry both prosper mutually in a respectful manner and should not be portrayed as being one against the other. Actually the industry-agriculture harmony should be nurtured and fostered without fail.

### **No More Crop Holiday**

The crop holiday declared by paddy farmers in the East Godavari district of Andhra Pradesh do not augur well for the food security of the nation and should be the first and last of its type in the country. Remedial steps should be implemented immediately by developing early warning systems to caution farmers on natural calamities and to supply newly-developed paddy varieties, which can withstand floods and submergence for much longer periods. Rain-fed agriculture, neglected for long, should be taken seriously and bio-shields such as mangroves should be conserved. Grain/seed/fodder banks should be established.

### **To enhance Farmer's Income**

The root causes for today's farmers' distress is the increase in input prices (production costs) at higher rate than increase in output prices-leading to declining profitability. This phenomenon has reached alarming dimension. Is it justifiable to suppress output prices for the farmer in the name of consumer interest while allowing input prices to soaring? When the companies producing fertilizers, pesticides, etc are allowed to increase the prices of their products due to cost escalation of raw materials, farmer is not enjoying the same benefit because there is a strict control on output prices on agric-commodities. This malady should be eradicated.

Instead of providing the present fixed subsidy to farmers, the farmer should have a say in deciding the raw material prices. Just like the Public Distribution System (PDS) for the supply of staples, a new system, viz., the Farmers Distribution System (FDS) should be developed for the supply of seeds, fertilizers and pesticides to the farmers at affordable prices on credit. A National Procurement Commission of

Agricultural Commodities (NPCAC) should be formed by the Government of India to procure the harvested produces from the farmers at prices proportionate to the cost of production after discounting the credits given by the FDS. No middlemen should be involved. Thus, the farmer is freed from the burden of the spiraling cost of raw materials dictated by the industry and is assured of market with profits. Both FDS and NPCAC should be under the control of an autonomous body like the National Farmers Commission (NFC) and should be free from the influences of bureaucrats/politicians/MNCs. This system will ensure higher income for the farmer and will induce more and more population to come forward towards agriculture. Value addition technologies such as food processing, food irradiation to enhance shelf-life, mechanized food harvesting methods, and post harvesting storage facilities will increase farmer's income, ensuring that in future India will not see any farmer's suicide.

### **Farm Policies**

The present anti-farmer government policies are draconian in nature, mainly favorable to a handful of very large land holding barons and are responsible for suicides of the so many small farmers. The need of the hour is need based government policies beneficial to all farmers including the small holders. Government policies should be to encourage the Indian farming community rather than being dictated by MNCs for their own gains. Though we need private sector participation, it should be with clarity on their role and Government regulations. Promotion of private sector and MNCs without proper regulatory mechanism would lead to disaster to the Indian agriculture. Agric export-import policies should lead to positive impact on domestic farmers. Any government policy on agriculture should be wetted by the NFC after thorough deliberations.

### **Political & Bureaucratic Care**

A political leadership without strong commitment, apathy of bureaucracy and indifferent Indian elite cannot afford to ignore agriculture. A grave and serious criticism against the civil servant in India is his insensitivity to the problems of the Indian

farmer to the extent of being callous. The civil servant of 21st century has to show greater sensitivity and greater feeling for the misery and suffering of the domestic farmer. Political parties should treat the problems of the farmers above politics and should not be exploited. India is a land of farmers and hence it is the duty of every citizen of the country to take care of the welfare of the farmers.

### **Higher Public Investment**

Our public investment in Agricultural research is less than 0.5% of Agriculture GDP as against 2% in China, 4 to 7% in developed nations. Declining public investment in agriculture sector has become serious constraint for enhancing agriculture growth. Further, declining the impact of public sector agricultural research is another important factor for low productivity, resulting in meager farmer income. As public investment is the key for promoting private investment in agriculture, increase in public investment is essential in agriculture sector in order to raise the overall investment thereby improving the productivity.

### **Update Technologies & Partnership with Industries**

Indian Farmers require Technologies including GMOs, mechanization, water conservation, remote sensing etc. The technological changes of varied nature will accelerate the pace of agricultural development in India. Traditional institutions involving people's participation, particularly small holders, to manage natural resources and to provide livelihood security to the rural poor should also be strengthened. With regard to technology, intensification of R&D efforts, efficiency of public R&D organizations, managing intellectual property, incentives, and dissemination of information about technology would be critical. Lab findings and technologies should reach the land without any hurdles. Early preparedness through disaster warning systems, genetic modification and greater use of biotechnology may hold the key to the problems faced by the farm sector in future. Therefore, partnership with Industry in research, extension, processing and infrastructure is a key element for future growth of agriculture.

The Indian Council of Agricultural Research (ICAR), Indian Council of Medical Research (ICMR), Department of Bio Technology (DBT), M.S. Swaminathan Research foundation (MSSRF) and several Indian agriculture universities have developed several newer technologies which are easily available to the domestic farmer. Beta carotene (pro-vitamin A)-rich sweet potato, and cassava, zinc and iron-rich rice, wheat, maize, pearl millet, beans are available in the country. DBT Nutrition Security for India network project on bio-fortification of rice, wheat and maize is currently being implemented by ICAR Institutions and state agriculture universities. Golden rice rich in pro-vitamin A; high- iron rice (high ferritin gene from mangrove-(MSSRF); high protein and essential amino acid-rich transgenic potato varieties using AMA1 gene from *Amaranthus hypochondriacus* (National Institute of Plant Genome Research); oxalate-free and disease-resistant transgenic tomato using oxalate decarboxylase gene from edible mushrooms are examples of transgenic technologies. Zero erucic acid mustard has been developed using conventional breeding methods. Indian farmer should have the mind and means to acquire the latest technologies by appropriate partnership.

### **Conclusion**

Ways and means are available in the country to encourage the domestic farm sector. Where there is a will there is a way. What is needed is the change in the mind set of the all the stake holders viz., politicians, bureaucrats, scientists, investors, industries, public and MNCs. If we do not act now to rescue the Indian farmer, future will be bleak leading to a black chapter in the Indian history. Indian farmers deserve high respect in modern India. It is but natural that the learned saint-poet "Thiruvalluvar" rightly pointed out several thousand years back in his "Thirukkural no. 1033" that the farmer is the living legend because he is producing food not only for his livelihood but also for the survival of the entire mankind and therefore, all others have to obey him with reverence. Therefore, it is our duty to restore the past glory of our farmers.



# NOVEL STRATEGIES FOR OVERCOMING PESTS AND DISEASES IN INDIA

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## Abstract

The losses incurred due to pests and diseases have been a consistently reported feature. Changes in cropping patterns including the cultivation of high yielding varieties and hybrids have added to the problem in some areas. Plant breeding has been successful to some extent in keeping up with new and evolving diseases and pests. Innovation in agronomic practices, advent of chemicals for control, and more recently genetic engineering tools have been providing new opportunities for reduction of crop losses due to these biotic pressures. Insect control is even more important as many viral diseases are transmitted by insects. Molecular markers and other genomics information are allowing more precision in breeding for greater tolerance to diseases in many crops. India has commercialized genetically modified cotton which provides resistance to the bollworm complex of pests. Broad spectrum resistance is now possible with genetic engineering. Marker assisted breeding is being used in rice and other crops for disease resistance strategy. Still better understanding the mechanism of resistance for disease and pests, will allow better deployment of technologies for different pests and diseases.

## Media Summary

Losses caused by plant diseases and pests are as old as plants themselves. Various strategies to control diseases and pests have been successful to different levels. New biotechnology tools are providing new levels of protection against certain pests and diseases. Both genetically engineered crops and utilization of molecular tools are improving plant breeding effectiveness.

## Key words

GMOs, transgenes, Molecular markers, losses due to pests and disease

## Introduction

One of the most important crop improvement objectives has been the enhancement of tolerance to biotic stresses. Identification of resistance sources and use of these in plant breeding programs has resulted in substantial gains in crop productivity. Despite the ongoing efforts, productivity in India for major crops is far below the global averages, largely due to persisting problems of pests and diseases. India also witnessed the epidemic of brown spot of rice in 1942 which led to large scale famine and large number of deaths. In addition, abiotic stresses like drought and salinity, resource inputs in the form of seeds, fertilizers, pesticides and water also play a role in lower productivity.

Crop biotechnology is providing unique opportunities to produce plants with desired genetic traits which had been difficult to achieve using conventional techniques. Genetically Modified Crop (B.t. Cotton) has been approved in India for commercial cultivation and is already providing substantial benefits to the farmers by providing enhanced protection against cotton pests, particularly bollworm complex. Many other products are also in the regulatory pipeline. Regulatory/Biosafety guidelines are in place in India that provides a framework for conducting genetic engineering activities in plants. In addition to the GM crops, many new tools have become available which provide greater effectiveness of the breeding efforts, such as the use of molecular markers.

## Strategies for control of disease and insect pests

Green revolution has brought in the necessary impetus to Indian agriculture making India self sufficient in food grains and great improvement in production of other crops as well. However, the high input demands require that we re-look at how

technologies can be deployed that are sustainable and improve productivity. With increase in pest problems and resultant indiscriminate use of pesticides there is concern of environmental problems and ecological imbalance (Zadoks and Waibel, 1999). India consumes nearly USD 630 million worth of pesticides annually in agriculture, of which USD 380 million worth are used on the cotton crop alone for the control of bollworms and sucking pests. It is estimated that about USD 250 million worth of pesticides are used only for the control of bollworms in cotton (Anonymous, 2001). Other key pests of similar importance are yellow stem borer in rice, stem borers of © 2004 "New directions for a diverse planet". Proceedings of the 4th International Crop Science Congress, 26 Sep – 1 Oct 2004, Brisbane, Australia. Published on CDROM. Web site www.cropsscience.org.au 2 sorghum and maize, fruit and shoot borer of brinjal, fruit borer of tomato and diamond back moth of cruciferous crops, cabbage and cauliflower. These pests are perennial and persistently causing losses to these economically important crops. Farmers are unable to control these pests to desired level in spite of spending millions of dollars on pesticides. As one possible alternate strategy to chemical pest control, genetically engineered crops and microbial pesticides can be used due to their effectiveness. In India, transgenic Bt crops are under intense trials and Bt cotton has been approved for commercial cultivation.

More such crops are likely to enter the scene in the near future because the benefit of transgenic crops far outweighs the perceived risks associated with these.

### Crop losses by insect pests

India is basically an agricultural country and it has most variable climatic regions owing to its geographic features. Total arable land area is 168 m ha and major part of it falling under tropical climate, and a variety of cereals, oil seeds, pulses, vegetable and horticultural crops are being cultivated (Table.1). India has achieved self sufficiency in food grains but there is an urgent need to improve our productivity in all crops to meet future challenges. India needs to produce additional 5 - 6 m t of food grains every year to keep pace with the growth of our population (Paroda,

1999). In realizing this, one of the important stumbling blocks seems to be the yield losses due to insect pests. There is an urgent need to assess such losses, in order to frame strategies to overcome them.

**Table 1: Area and production of important field crops in India (2000-2001)**

Crop Area m ha	Production m t	Productivity Kg /ha	Rice Wheat
Rice	44.36	84.87	1913
Wheat	25.07	68.76	2743
Sorghum	9.99	7.71	772
Maize	6.56	12.07	1840
Pigeonpea	3.68	2.26	616
Food grains	119.78	195.91	1636
Rape seed & Mustard	4.47	4.21	941
Castor	1.08	0.86	805
Safflower	0.43	0.2	473
Sunflower	1.33	0.73	549
Cotton	8.58	9.65	191
Chilli*	0.92	1.02	1112
Vegetable & root crops	6.25	93.92	15031
Onion	0.45	4.72	10517
Banana	0.48	16.17	33486
Cabbage	0.25	5.62	22890
Cauliflower	0.26	4.7	18317
Okra	0.35	3.35	9581
Tomato	0.46	7.28	15865

Source: Center for Monitoring Indian Economy- December, 2002, (data available for 1999-2000)

Therefore to assess the yield losses, studies are being carried out systematically, still the losses caused by individual pests are not distinguished from the whole pest complex. Yield loss estimates vary depending on type of cultivar, density of pest population, time of pest attack in relation to crop phenology and cultural practices followed. Another problem is that most of the studies are conducted in small experimental plots in research stations rather than in farmers' fields, which may not give the exact picture of the losses caused. Here the focus is on the important pests belonging to Lepidoptera, Diptera and Coleoptera causing economic losses to field crops and the role played by transgenics in overcoming such losses. A survey carried during 1950s revealed that fruits, cotton, rice and sugarcane suffered significant yield losses due to insect pests (Pradhan, 1964) (Table 2).

**Table 2: Losses in field crops due to insect pests under traditional agriculture**

Crop	Loss in yield (%)
Rice	10
Wheat	3
Maize	5
Sorghum & millets	5
Cotton	18
Sugarcane	10
Fruits	25

Introduction of high yielding varieties together with increasing application of agrochemicals increased the productivity of land with a concomitant increase in the proportion lost to insect pests in India and other developing Asian countries (Dhaliwal and Arora, 1994). Conservative estimates project direct losses due to insect pests amount to USD 6350 million annually (Table 3). However, even the limited information available from various sources reveals that crop losses due to insect pests are higher for the region than for the other parts of the world (APO, 1993) (Table 4).

**Table 3: Estimated crop losses caused by insect pests under modern agriculture\***

Crop	Actual Production (1993-94) (Mt)	Estimated loss in yield due to insect pests		Possible production in the absence of pest	Estimated losses (Million USD)
		Percent	Total (Mt)		
Rice	79	25	26.3	105.3	2058
Wheat	59.1	5	3.1	62.2	263
Maize	9.5	25	3.2	12.7	215
Sorghum and millets	16.5	35	8.9	25.4	580
Pulses	13.1	30	5.6	18.7	815
Groundnut	7.8	15	1.4	9.2	273
Rapeseed - Mustard	5.4	35	2.9	8.3	523
Seed cotton	5.4	50	2.7	10.8	675
Sugarcane	227.1	20	56.8	283.9	950
Total					6354

\*Source: Dhaliwal and Arora(1996)

Insect pests on an average cause 25-30% yield loss in vegetables. Diamond back moth is the most important pest of cruciferous crops, which has developed resistance to several classes of insecticides. It has become a menace in cabbage and cauliflower causing up to 52 % losses in marketable yield in India. In brinjal shoot and fruit borer has remained major pest since two decades due to poor natural enemy complex and extensive use of pesticides. The pest starts infesting the shoot tips few weeks after transplanting and bores in to fruits till harvesting. Crop losses in brinjal due to shoot and fruit borer ranges from 25.82-92.50 % and yield reduction of 20 – 60 %. Another key pest of brinjal is the stem borer, which tunnels in to stem and cause plant to wither and die. Of late its infestation is growing to epidemic proportions in some states. Hadda beetles devastate the crop in some pockets, where adult beetles as well as grubs feed on the foliage and completely skeletonise the brinjal plant. In okra, fruit borer is the main pest and the larva bores in to shoot or fruit eating on internal contents causing withering up of plant and reduction in marketable value of the fruit. In tomato *Helicoverpa* is the key pest and it feeds on buds, flowers and fruits causing on an average 46% yield loss.



**Table 4. Major insect pests (Lepidoptera, Diptera and Coleoptera) of field and vegetable crops and extent of losses caused by them**

Crop	Major pests		Insect Order	% Crop loss	Reference	
	Common name	Scientific name				
<b>Cereals</b>						
Rice	Stem borer	<i>Scirpophaga incertulas</i>	Lepidoptera	10 – 48	AICRIP, 1988	
	Leaf folder	<i>Cnaphalocrocis medinalis</i>	Lepidoptera	10 – 50	Nair, 1995	
	Whorl maggot	<i>Hydrellia</i> spp	Diptera	20 – 30	Nair, 1995	
	Gall midge	<i>Orseolia oryzae</i>	Diptera	8 - 50	Nair, 1995	
	Hispa	<i>Di cladispa armigera</i>	Coleoptera	6 – 65	Nair, 1995	
Wheat	Ghujia weevil	<i>Tanymecus indicus</i>	Coleoptera	NA*		
	Army worm	<i>Mythimna separata</i>	Lepidoptera	20 - 42	Mathur, 1994	
Sorghum	Stem borer	<i>Chilo partellus</i>	Lepidoptera	55 - 83	Jotwani, 1971	
	Oriental army worm	<i>Mythimna separata</i>	Lepidoptera	55.7	Giraddi and Kulkarni, 1983	
	Pink borer	<i>Sesamia inferene</i>	Lepidoptera	NA		
	Shoot fly	<i>Atherigona soccata</i>	Diptera	22 - 80	Taneza and Nwanze, 1994	
	Earhead caterpillar	<i>Helicoverpa armigera</i>	Lepidoptera	18 – 26	Rawat et.al, 1970	
Maize	Stalk borer	<i>Chilo partellus</i>	Lepidoptera	24 - 36	Chatterji et.al, 1969	
	Shoot fly	<i>Atherigona soccata</i>	Diptera	10 – 61	Nair, 1995	
	Pink borer	<i>Sesamia inferene</i>	Lepidoptera	NA		
<b>Pulses</b>						
Pigeonpea	Pod borer	<i>Helicoverpa armigera</i>	Lepidoptera	14 –100	Nath et.al, 1977	
	Pod webber	<i>Maruca testulalis</i>	Lepidoptera	20 -60	Singh and Allen, 1980	
	Pod fly	<i>Melanagromyza obtusa</i>	Diptera	10 – 60	Nair, 1995	
<b>Oil seeds</b>						
Sunflower	Capitulum borer	<i>Helicoverpa armigera</i>	Lepidoptera	30 – 60	Dhaliwal & Arora, 1994	
Safflower	Safflower caterpillar	<i>Prospalta capensis</i>	Lepidoptera	NA		
Mustard	Diamond back moth	<i>Plutella xylostella</i>	Lepidoptera	NA		
Castor	Semi looper	<i>Achoea janata</i>	Lepidoptera	NA		
	Capsule borer	<i>Conogethes punctiferalis</i>	Lepidoptera	15 – 41	AICRP, 2001-02	
<b>Fiber crops</b>						
Cotton	Spotted bollworm	<i>Earias vittella</i>	Lepidoptera	30 – 40	Panwar, 1995	
	American bollworm	<i>Helicoverpa armigera</i>	Lepidoptera	20 – 80	Monga and Jeyakumar, 2002	
	Pink bollworm	<i>Pectinophora gossypiella</i>	Lepidoptera	20 – 95	Panwar, 1995	
	Tobacco caterpillar	<i>Spodoptera litura</i>	Lepidoptera	NA		
<b>Vegetables</b>						
Cabbage	Diamond back moth	<i>Plutella xylostella</i>	Lepidoptera	20 - 52	Chellaiah & Sreenivasan, 1986	
	Cabbage webber	<i>Crociodomia binotalis</i>	Lepidoptera	NA		
	Cabbage borer	<i>Hellula undalis</i>	Lepidoptera	NA		
Cauliflower	Diamond back moth	<i>Plutella xylostella</i>	Lepidoptera	20 - 52	Chellaiah & Sreenivasan, 1986	
Okra	Shoot and fruit borer	<i>Earias vittella</i>	Lepidoptera	NA		
	Fruit borer	<i>Helicoverpa armigera</i>	Lepidoptera	NA		
Tomato	Fruit borer	<i>Helicoverpa armigera</i>	Lepidoptera	15 - 46	Singh, 1991	
Brinjal	Shoot and Fruit borer	<i>Leucinodes orbonalis</i>	Lepidoptera	25 – 92	Mall, 1992	
	Stem borer	<i>Euzophera perticella</i>	Lepidoptera	NA		
	Hadda beetle		<i>Epilachna vigintioctopunctata</i>	Coleoptera	NA	
			<i>E. dodecastegma</i>	Coleoptera	NA	
			<i>Helicoverpa armigera</i>	Lepidoptera	NA	
Chilli	Fruit borer	<i>Spodoptera litura</i>	Lepidoptera	NA		
Melons	Melon fruit fly	<i>Dacus cucurbitae</i>	Diptera	50 -100	Panwar, 1995	
		<i>Raphidopalpa foveicollis</i>	Coleoptera	NA		
	Pumpkin beetle	<i>R. intermedia</i>	Coleoptera	NA		
		<i>R. cincta</i>	Coleoptera	NA		

NA\* – Not available

## Crop losses caused by diseases:

Bacterial blight of rice assumed epidemic proportions in India in the early 1960s. Similarly rice tungro and yellow dwarf also appeared in different areas. Alternaria blight in wheat, downy mildew in pearl millet, sterility mosaic and Alternaria in pigeon pea continues to be critical.

Plant diseases present a major constraint to sunflower production and can lead to significant reduction of harvested seeds as well as the quality. More than 30 fungal diseases are reported for sunflower with only a few of them being pathogenic and infectious. Downy mildew, rust, verticillium wilt, Alternaria spot are some of the diseases that can lead to 15% production loss. Viral diseases had not been reported until recently in sunflower. Parts of India have seen epidemic proportion incidence by Tobacco Streak Virus (TSV) resulting in 6- to 100% loss due to sunflower necrosis. Geminiviruses cause significant crop losses in crops like cotton, tomato, okra, chilli and others. Despite the amount of effort that has gone into geminivirus control research, no sustained resistance has been found.

Plant viruses also cause considerable damage to various cucurbits including bottle gourd. Nearly, 30 viruses are known to infect cucurbit crops under field conditions (Lovisolo, 1980). Viral diseases result in losses through reduction in growth and yield and are responsible for distortion and mottling of fruits, making the product unmarketable. Fruit set can be dramatically affected by some viruses. With the exception of Squash mosaic virus (SqMV), which is seed borne in melon and transmitted by beetles, the other major viruses are transmitted by several aphid species in a non-persistent manner. Some major Cucurbit viruses include Squash mosaic virus (SqMV), Cucumber mosaic virus (CMV), Watermelon mosaic virus 2 (WMV-2), Papaya ringspot virus - W (formerly, Watermelon mosaic virus 1), and Zucchini yellow mosaic virus (ZYMV). Tobacco ringspot virus, Tomato ringspot virus, Clover yellow vein virus, and Aster yellow mycoplasma were considered to be minor viruses, that infect cucurbits. Bottle gourd is affected mainly by Cucumber green mottle mosaic- tobamovirus, Melon necrotic spotcarmovirus, and Zucchini yellow fleck- potyvirus. Bottle gourd mosaic disease is widely prevalent in almost all the bottle gourd growing states of India, causing losses through reduction in growth and yield.

## Technology deployment

### Transgenic Bt cotton for pest control

The bacterium species *Bacillus thuringiensis* has contributed numerous proteins that provide insecticidal properties for improvement in crop production. On such Bt protein, CryIAc, has been used globally for protection of cotton plants against Bollworm species, through both external spray application and insertion of the Bt gene responsible for CryIAc protein production into the genome of cotton varieties (known as “genetically modified” or “transgenic” cotton). The advantage of transgenic Bt cotton is based on the inherent production of Bt protein by the cotton plant itself, thereby providing continual protection for plant parts against Bollworm pests. From a global perspective, in the year 2001 Bt cotton was commercially grown in 7 countries and on approximately 4.3 million hectares. All such countries commercializing Bt cotton in 2001 were based on variety cultivation. India was the first country to introduce commercial cultivation of Bt using hybrid cotton technology, in the year 2002.

The major benefits of Bt cotton cultivation globally have been: 1) substantial reduction in Bollworm insecticide usage, and 2) potential for productivity (yield) improvements due to the inherent Bollworm protection. The Bt gene currently being utilized for cotton hybrid cultivation in India is effective against three species of Bollworm pest (commonly known as “American”, “Pink”, and “Spotted”) which damage cotton bolls through feeding, and result in substantial yield loss with adverse impact on cotton lint quality. India is also the greatest consumer of synthetic insecticides for use in cotton cultivation, and therefore deployment of Bt cotton can be beneficial for Indian agriculture through reduction in insecticide usage, in addition potential yield gains.

In India Bt cotton is permitted for commercial cultivation. In addition to the above GEAC recommended following guidelines to Bt cotton growers to counter the possible development of resistance to in planta expressed Bt toxin in bollworms.

- Plant one seed per hill, Bollgard® cotton should be planted in the centre of the plot. For one acre area plant 5 rows of non-Bollgard® cotton seed (as refuge belt) surrounding the Bollgard® plot.

- For more than one acre area, the field where Bollgard® cotton is planted shall be fully surrounded by a belt of land in which non-Bollgard® variety shall be sown. The size of the refuge should be such as © 2004 "New directions for a diverse planet". Proceedings of the 4th International Crop Science Congress, 26 Sep – 1 Oct 2004, Brisbane, Australia. Published on CDROM. Web site [www.cropscience.org.au](http://www.cropsscience.org.au) 6 to take at least 5 rows of non-Bollgard® cotton or shall be 20% of the total sown area whichever is more. Experimental results from multi location trials suggest that by cultivating Bt cotton, farmer can save a minimum of 50 % amount spent on insecticidal sprays against bollworms (Ghosh, 2001). The experimental trials are underway for other important crops like rice, sorghum, maize, pigeonpea, tomato, brinjal, cabbage and cauliflower, to introduce the transgenic technology and relieve the woes of farmers ravaged by loss of their crops due to pest problems.

### **IPM interventions**

- Seed treatment with chemical pesticides to avoid sucking pests attack.
- Inter cropping with legumes to augment natural enemy population and trap cropping to reduce damage by important pests to main crop.
- Bird perches for alighting insectivorous birds to predate on insects.
- Pheromone traps for monitoring or mass trapping of moths.
- Scouting to monitor status of pests and beneficials at regular intervals.
- Augmenting biocontrol agents like Trichogramma / Chrysoperla.
- Spraying biopesticides like Ha NPV and neem seed kernel extract (NSKE).
- Topping the cotton plants at the time of high oviposition by Helicoverpa.  
Periodical removal and destruction of dropped squares, dried flowers, premature bolls and infested shoots.
- Yellow sticky traps and light traps to control sucking pests like white flies, jassids and aphids.

### **Chemical control**

- Need based use of chemical insecticides.
- Avoidance of external application of Bt products when Bt cotton is grown.

### **Disease resistance: Geminivirus control as an example**

Obtaining crops resistant or tolerant to the geminiviruses is very difficult, because their insect vector, the whitefly *Bemisia tabaci*, is difficult to control as whiteflies are developing resistance to insecticides and are increasingly spreading over larger parts of the world. No commercial crop variety is tolerant or resistant to these viruses because the resistance achieved through classical breeding is overcome by emergence of new viral strains or species. Further Geminiviruses have complex lineage as they cause similar diseases in different geographical areas, such as the Indian subcontinent, the African/Mediterranean region or the Americas but are different from each other. The studies on the putative functions of genes from different gemini-viruses led to development of viral genes mediated resistance against geminiviruses. Tobacco primary transformants expressing anti-sense RNA to the AL1 gene of tomato golden mosaic virus (TGMV) were partially resistant to TGMV. But most of the time geminivirus DNA derived resistance was limited to particular strain of virus with a narrow resistance spectrum as has been reported as in transgenic tobacco. As researchers have reported evolution of new viruses or virulent strain of gemini-viruses that are associated with severe epidemic and spread of viral disease to areas that were previously unaffected. The natural recombinant between two or more distinct geminiviruses by processes such as deletion, inversion, duplication and rearrangement are frequent because of broad host range of geminiviruses, irrespective of their preferred host and due to their mixed or co infections. Hence crop plants are prone to infection by more than one gemini virus at a time. Therefore, developing new strategies to produce geminivirus resistant plant has become more important in recent years. An attempt to

endow plants with broad-based resistance against rapidly expanding family of gemini viral pathogens has been initiated in the recent years. One such strategy is to equip plants with a gene 5 protein (g5p) from an Escherichia coli M 13 phage. The g5 protein during rolling circle replication binds non-specifically and preferentially to viral single stranded DNA forming superhelical g5-ssDNA complexes and prevented movement of geminivirus in wild Nicotiana benthamiana plants inoculated with ToLCV-Nde isolate modified to produce g5 protein in place of ToLCV coat protein. Similarly in Tomato and Okra, tolerance is seen against many viral strains from across the country in India when the plants carrying g5 are challenged with viriferous whiteflies. These plants are now been evaluated in the greenhouse and undergoing the Indian biosafety regulations.

## Conclusion

With increasing availability of information and understanding on how plant pathogens and pest cause damages, new strategies are being devised to enhance protection that is possible. Plant breeding and biotechnology tools in combination are already providing new materials for better plant management. The pest management tools that have been deployed have had a positive impact on the environment by reducing the amount of chemical pesticides that are applied to these crops.

## References

- Anonymous 2003. Bt cotton seeds of plenty; Empty promise, Times of India, March, 15.
- APO, 1993. Pest control in Asia and Pacific. Report of a seminar. Sept. 24 – Oct. 4, 1991. Asian productivity Organization, Tokyo, Japan.
- Chatterji, S. M., Young, W. R. Sharma, G. C., Sayi, I. V., Chahal, B. S., Khare, B. P., Rathore, Y. S., Panwar, V. P. S. and Siddiqui, K. H. 1969. Estimation of losses in yield of maize due to insect pests with special reference to borers. Ind. J. Ent. 31:109 – 115.
- Chellaiah, S. and Srinivasan, K., 1986. Bio ecology and Management of diamond back moth in India. In: "Diamond back moth Management Proceedings of International workshop, Thainan, 11 -15, March, 1985. AVRDC, Taiwan, pp 63 – 76.
- CMIE ( Center for Monitoring Indian Economy) Agriculture. December, 2002, Mumbai. Dhaliwal, G. S. and Arora, R. 1994. Trends in agricultural insect pest management. Commonwealth Publishers, New Delhi.
- Dhaliwal, G.S. And Arora. R. and Heinrichs, E. H., 1998. Insect pest management. In " G. S. Dhaliwal and E. H. Heinrichs, (eds), "Critical issues in insect pest management.". Commonwealth Publishers, New Delhi, pp: 1 – 25.
- Ghosh, P. K., 2001 Genetically engineered crops in India with special reference to Bt cotton. IPM Mitr. (2):8-28.
- Girardi, R. S. and Kulkarni, K. A. 1983. Estimation of crop losses in sorghum due to armyworm Mythimna separata (Walker)(Lepidoptera:Noctuidae). In "Crop losses due to insect pests (eds. Krishnamurthy Rao, B. H. and Murthy, K. S. R. K.) Special issue of Ind. J. Ent. Pp: 235 – 246.
- ICRISAT (International Crop Research Institute for Semi Arid Tropics) 1992. The medium term plan. ICRISAT, Patancheru, Andhra Pradesh, India.
- Jadocs, J. C. and Waibel, H. 1999. From pesticides to genetically modified plants: History, economics and politics. Netherlands J. Agril. Sci. 48 pp:125-149.
- Jotwani, M. G., Chandra, D., Young, W. R., Sukhani, T. R., Saxena, P. N. 1971. Estimation of avoidable losses caused by insect complex on sorghum hybrid CSH 1 and increase in yield over untreated control. Ind. J. Ent. 33:375 – 383.
- King, A. B. S., 1994. In : Matthews, G. A., Tunstall, J. P. (eds.), Insect pests of cotton. Commonwealth Agricultural Bureau International, UK, pp: 39 – 106.
- Krishnaiah, K. 1993. Changing scenario of rice insect pest problems. In :H. C. Sharma and M. Veerabadra Rao (eds.) Pests and pest management in India – The changing scenario. Plant Protection Association of India., Hyderabad. Pp:11 – 18.

- Lovisollo, O. 1980. Viruses and viroid diseases of cucurbits. *Acta Hort.* 88:33-82
- Mall, N. P., Pande, R. S., Singh, S. V. and Singh S. K., 1992. Seasonal incidence of insect pests and estimation of losses caused by shoot and fruit borer on brinjal. *Ind. J. Ent* 54(3):241 – 247.
- Mathur, L. M. L, 1994. Advances in insect pest management in maize. In " Trends in agricultural insect pest management ". Commonwealth Publishers, New Delhi, pp: 113 – 160.
- Monga, D and Jeyakumar, P., 2002. Cotton field ecology-Introduction to insect pest and diseases in relation to growth and development. In " National training course on IPM in cotton, rice and vegetable crops", NCIPM, New Delhi.
- Nair, M. R. G. K., 1995, Insects and mites of crops in India.
- NASS USDA report 2001, Agerage.
- Nath, D. K., Sen B. and Pal, S. R., 1977. Insect pests occurring in Sunflower, *Helianthus annuus* in west bengal. *Sci and Cult.* 43: 180 – 181
- NCIPM Annual Report, 2001 – 2002.
- Panwar, V. P. S., 1995. Pests of fiber crops. In " Agricultural insect pests of crops and their control". pp. 87- 104.
- Paroda, R. S. 1999. For a food secure future. Hindu survey of Indian agriculture.
- Pradhan, S. 1964. Assessment of losses caused by insect pests of crops and estimation of insect population. In: *Entomology in India*. Entomological Society of India, New Delhi, India, pp: 17 – 58.
- Rawat, R. R., Jakhmola, S. D. and Sahu, M. R. 1970. Assessment of losses of hybrid sorghum CSH 1 to earhead caterpillar and comparison of insecticidal controls. *PANS* 16: 367 –369.
- Sarup, P., Sharma, V. K., Panwar, V. P. S., Siddiqui, K. H. and Aggarwal K. N., 1977. Economic threshold of *Chilo partellus* (Swinhoe) infesting maize crop. *J. Ent. Res.* 1: 92 – 99.
- Singh, D. 1991. Pests of solanaceous vegetables in "A decade of research on pests of horticultural crops, 1980 – 1990", Group discussion of entomologists working on coordinated project of horticultural crops held at CIHNP, Luknow.
- Singh, R. P., and Allen, D. R. 1980. Pests, diseases, resistance and protection in cowpea. Pages 419 – 443. In "Advances in legume science" (Summerfield, R. J., and Bunting, A. H., eds.). Kew, Richmond, Surrey, UK: Royal Botanic Gardens.
- Taneja, S. L. and Nwanze, K. F., 1994. Current status and strategies for management of insect pests of sorghum and millets. In "Trends in agricultural insect pest management ". Commonwealth Publishers, New Delhi, pp: 161 – 185.

# **BAILOUT AGRICULTURE TO BREATHE BY CIFA, TAMILNADU**

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# TURMERIC FARMERS SUICIDE IN 2012.....? !

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## Is this Title is Surprising.....

I Feel it would Happen Fall in Turmeric Price is the Reason for my Worry. In South India, Next to Paddy and Sugarcane, Turmeric is Cultivated in Wide Area, The Cost of Production of Turmeric is Rs.174000/- Per acre. Average Production is 20 Quintal per Acre. in December 2010 the Price of Turmeric per Quintal is Rs.17900/- But in October 2011 the Price Goes down to Rs.3500 per Quintal. At Present there will be a Loss of Rs.104000/- for Cultivating Turmeric in one Acre.

Based on the December 2011 Market Price, Farmers have Increased the Cultivating Area to 65 Percentage in the Current Year. But on Contrary the Price has Gone Down to Rs.3500/- During October 2011. Market Analysts Predicted That, After Harvesting it would go down to Rs.2000/- How the Farmers who have Cultivated in Large area is Going to Bear this Lose.

The fall in Turmeric price is going to make an Negative impact in Tamilnadu, Andrapradesh, Maharashtra, Karnataka, kerala, Pondicherry and West Bengal.

Agricultural University suggest that, turmeric can be preserved for 12 year by adopting proper measures but there is no adequate Warehouse facility and mortgage facility for Farmers who are willing to Storage in Tamilnadu, Turmeric is mentioned as a notified Commodity only in Certain districts and that it can be Stored for maximum Period of 6 Months only and the mortgage ban should be repaid with in four months.

No unit among farmers leads to enact a anti farmers policies by our State and central Governments.

The minimum support price fixed by our State and Central Government. is always less than the production cost.

As per the central governments report the cost of production has increased to 64 percentage. but for Paddy the government has increased the MSP as 7% from Rs.1000 to Rs.1080/- like wise the MSP for all the Commodities are fixed. every five farmers has to fight with the government for the increase in MSP.

## Is it Justice?

Unless providing profitable price for commodities there is no solution for this problem.

By Maintaining non - Profitable Price for Agricultural Commodity the traders and governments are divesting the farmers from agriculturre towards other professions.

At the time of increased price of turmeric, there is an increase in the price of food item, (turmeric powder) cosmetic item and dyeing items but after the fall in turmeric price there is no fall in turmeric price there is no fall in the price of cosmetic, dyeing and food items which are produced by turmeric as raw material. state and central government has no interest in stopping the suicide of farmers.

All the would , turmeric production is monopoly in nature and the mafor production is in india, and so it is possible to fix the price of turmeric by farmers its self. for example NECC fix the price for the Egg, there is no government interference. 78 Percent of would turmeric production is in India and only 3 percentage is for export and the remaining 75 percent is consumed in India.

On the line of NECC it is possible to fix the Price of turmeric by organising the farmers across india under one unbrella with this idea we met Mr.P.Chengal reddy in Hyderabad on 20.02.2011 He appreciate this idea and gane suggestions we are trying to formulate a procedue to acniven this with the help of Karnataka state CIFA general secretary Mr.Shanthakumar, Tamilnadu state CIFA General Secretary .Mr.R.Viruthagiri and Pondichery state CIFA General Secretry .Mr.Somasundaram.

It is our fundamandal right to fix the price for our commodity by ourself.

Thanking you,  
with regards,

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# AP FARMERS GO ON 'CROP HOLIDAY' – THE STATE'S RICE BOWL IS LEFT EMPTY

**Curtsey: Business Standard**

**Prashanth Chintala / Hyderabad September 27, 2011, 0:51 IST.**

An unviable minimum support price (MSP) for rice has forced farmers in Andhra Pradesh to leave their lands fallow. The movement is spreading to other states.

“Farming never pays” is a familiar slogan among agriculturists across the world, and especially so in India. Nevertheless, many continue to cultivate their fields year after year, barely eking out an existence, toiling in the hope that the tide may turn in their favour one of these days.

However, in the richly fertile regions of East Godavari, things have come to a head. Konaseema, comprising sixteen fertile mandals is often called the rice bowl of Andhra Pradesh-but it may have to change that sobriquet soon since 40,000 farmers in thirteen out of the sixteen mandals have not cultivated their land this year. This means that 85,050 acres of paddy producing fields are lying fallow, ensuring that the 500,000 tonnes of rice produced last year is not going to be repeated. Following Konaseema farmers, over 3,000 paddy growers of Karamchedu mandal in Prakasam district, also known for rice production, have declared a crop holiday. Many of these are marginal farmers with landholdings of less than 5 acres.

According to Secretary General of Consortium of Indian Farmers Association (CIFA) P Chengal Reddy, this is only the beginning. The movement is going to spread across the country if the Union government does not announce remunerative prices for farmers. “It has already spread to other districts like Nellore, Kadapa and Warangal in the state,” he says.

This apart, Reddy said, farmers associations affiliated to the consortium in AP, Tamil Nadu, Karnataka and Maharashtra have passed resolutions to observe 'crop holiday' on a massive scale in the next season if the Centre declines to accept the minimum support price (MSP) calculated by them (they call it 'farmers price'). There are 350 farmer's organisations under the consortium's fold across the country and similar resolutions are planned to be adopted in other states.

Why are these farmers resorting to such an extraordinary and extreme decision?

There are nearly a dozen reasons for this situation, according to a report by the Mohan Kanda committee that was constituted by the AP government to identify the circumstances that led to the declaration of crop holiday by farmers and to propose remedial measures.

More than any other reason, the MSP declared by the government seems to be the one thing that has enraged farmers the most. Even if you consider the estimates of the AP agricultural department, the cost of production of a quintal of paddy in Konaseema works out to Rs 1,583. Now, the MSP for paddy announced by the government for 2011-12 was Rs 1,110. This has meant a loss of Rs 473 a quintal and nearly Rs 10,000 per acre (the average yield per acre is estimated at 21 quintal).

## **WHY 'FARMING NEVER PAYS.'**

- \* 40,000 farmers in thirteen out of the sixteen mandals in Konaseema, East Godavari have not cultivated their land this year

- \* 85,050 acres of paddy lie fallow, not producing the 500,000 tonnes of rice that it provided the country last year

- \* Farmers' associations in AP, Tamil Nadu, Karnataka and Maharashtra will also go on 'crop holiday' next season if the Centre doesn't address pricing issues

- \* The main problem is unviable minimum support price (MSP), fixed on the advice of the Commission for Agricultural Costs and Prices (CACP)

- \* CACP computes average cost of production across states to calculate MSP which is problematic since costs vary dramatically from state to state

- \* There are also vast differences in the cost of other inputs, such as land which in Konaseema is over Rs 5 lakh an acre but Rs 1 lakh elsewhere

- \* Shortage of labour is also a major issue where schemes like NREGA compete in a fertile area where



there is no problem in finding work

\* The fifth report of the National Commission on Farmers prepared under Swaminathan says that cost of production was higher than MSP for 12 crops,, including rice and wheat

\* The report says that MSP should be regarded as the bottom line for procurement. Purchase by government should be MSP plus cost escalation

The MSP is fixed on the advise of the Commission for Agricultural Costs and Prices (CACP) and the commission's estimates seem to be at variance with the actual cost being incurred by the farmers in Andhra. "CACP calculations are based on three-year-old data. Besides, it takes the average cost of production in various states right from Assam to AP," says Reddy, explaining the reasons for the variation.

This is a problematic technique. In a vast and diversified country like India, the costs of production varies in different states. For instance, according to the Ministry of Employment's Labour Bureau, the average daily wage rate for a male agricultural labourer in AP was Rs 98.31 in December 2008, but went up to Rs 137.95 and Rs 176.29 in of 2009 and 2010 respectively. During the same period, the average wage rate was Rs 81.19, Rs 96.40 and Rs 114.10 in Assam, Rs 61.33, Rs 69.79 and Rs 84.43 in Madhya Pradesh while it was as much as Rs 220.27, Rs 250.79 and Rs 319.13 in Kerala.

Not just labour-there are also vast differences in the cost of other inputs. For example, the cost of land in Konaseema is over Rs 5 lakh an acre whereas it could be less than Rs 1 lakh in other states, or even in other regions or districts in the same state. As a result, the fixed cost of production varies from state to state, and from region to region within the same state.

Besides escalating costs, shortage of labour is also stated to be a major issue. During paddy transplantation, which usually lasts about a fortnight, large number of labourers are required. But, thanks to NREGP, it has become increasingly difficult to get the required number of labour.

To overcome labour shortage, farmers are switching to horticultural crops which are not labour intensive. However, the option is not available to wet land owners in Konaseema and Karamchedu. Their land is ideal for growing paddy but not suitable for horticultural crops.

The CIFA made several presentations to the

Centre including the Prime Minister, Agriculture Minister and the Planning Commission's Vice Chairman, asking for a remunerative MSP but to no avail. Left with no recourse, on September 5, 2011, the CIFA executive committee met in New Delhi and adopted a resolution rejecting the MSP declared by the government for the year 2011-12.

At the same meeting, it adopted another resolution urging the Centre to declare an MSP of Rs 2,400 a quintal of paddy, which it called the 'farmers price'. CIFA's MSP includes the estimated cost of production of Rs 1,600 plus Rs 800 as the farmer's "take home income" as per the recommendations of the National Commission on Farmers headed by noted agricultural scientist MS Swaminathan.

Besides adopting the above resolutions, CIFA also filed a petition in the Supreme Court urging the apex court to direct the Union government to implement the National Policy for Farmers-2007, framed by the Ministry of Agriculture on the basis of the recommendations of the MS Swaminathan commission.

Meanwhile, according to the fifth report of the National Commission on Farmers prepared under the chairmanship of Swaminathan, the profitability in agriculture declined by 14.2 per cent during the 1990s due to stagnancy in yield growth and rise in input prices outpacing the increase in prices of the output. The report said that the cost of production was invariably higher than the minimum support price in the case of 12 crops including rice and wheat. The other crops were jowar, maize, bajra, ragi, tur, moong, urd,gram and barley. "It would be extremely unlikely that in long run farmers would continue to cultivate those crops where the C2 costs (cultivation costs) are not recovered," the report stated.

According to the report, MSP should be regarded as the bottom line for procurement both by government and private traders. Purchase by government should be MSP plus cost escalation since the announcement of MSP. The commission also recommended that the MSP should be at least 50 per cent more than the cost of production. It also said that CACP should be an autonomous statutory organisation and should become an important policy instrument for safeguarding the survival of farmers and farming.

Terming NREGA as a "vote catching, populist scheme", Chengal Reddy asked, "Where is the need for

introducing NREGA in delta areas like that of Krishna, Godavari, Cauvery, Tungabhadra and Punjab?" According to him, there is enough work for people in the agricultural sector in these areas and there is no need of NREGA, which is leading to shortage of agricultural labour and escalation of cost of production.

On the other hand, Union Minister for Rural Development, Jairam Ramesh, had been eloquent about the effect of NREGA in addressing unemployment in rural areas. When it was brought to his notice that the scheme had an adverse impact on agricultural operations and some farmers were observing crop holiday, the minister said he was "open to suggestions" in this regard.

ITC Agri & IT businesses group head S Sivakumar

said it was time that we came out with long-term solutions. "The formula we have used for the past 30 years can't be used in the next 10 years," he said adding that we were currently in a situation where the food inflation was very high while there was no steep rise in the output prices for farmers.

He said that long-term solutions include raising productivity of both crops as well as labour, reducing transaction costs between farmer and the consumer and encouragement of private sector participation on a large scale for which the regulatory framework has to be changed.

Until then, one of India's most fecund rice bowls will remain empty.



## OUR FARMERS ARE DYING, TO HELL WITH THE WORLD CUP

Yes, you read it right; to hell with the World Cup; to hell with the celebrations; to hell with all the free land and money being showered by different governments on the players. How can I jump, scream, have gallons of beer and cheer for the nation when a few kilometres away the farmers and feeders of my country are taking their own lives in hordes?

Do you know that, on average, 47 farmers have been committing suicide every single day in the past 16 years in our shining India - the next economic power, progressive with nine per cent growth?

Last month, on March 5, Friday evening, when Bangalore's watering holes were getting filled up, when all the DJs were blaring out deafening music, when we were busy discussing India's chances at the World Cup, sitting in CCDs and Baristas - just 100 km away from Bangalore, Swamy Gowda and Vasanthamma, a young farmer couple, hanged themselves, leaving their three very young children to fend for themselves or, most likely, die of malnutrition.

Why did they do it? Were they fighting? No. Were they drunkards? No. Did they have incurable diseases? No! Then WHY? Because they were unable to repay a loan of Rs 80,000 (a working IT couple's one month salary? 2-3 months EMI?) for years, which had gradually increased to Rs. 1.2 lakh. Because they knew that now they would never be able to pay it back. Because they were hurt. Hurt by our government which announced a huge reduction in import duty for silk in this year's budget (from 30 per cent to 5 per cent). They were struggling silk farmers and instead of help from the government, they get this! Decrease in import duty means the markets will now be flooded with cheap Chinese silk (as everything else!) and our own farmers will be left in the lurch.

The media are supposed to be the third eye of democracy and also called the fourth estate, but now they have become real estate. Pure business.

Karnataka Chief Minister B.S. Yeddyurappa announced plots for all the players. But land? In Bangalore? You must be kidding, Mr. C.M.. So he retracts and now wants to give money. But where will it come from? Taxes, yours and mine. Don't the poor farmers need the land or money more than those

players who are already earning in crores?

A government-owned bank will give you loan at six per cent interest rate if you are buying a Mercedes but if a poor farmer wants to buy a tractor, do you know how much it is charging him? Fifteen per cent! Look at the depths of inequality. Water is Rs. 15 a litre and a SIM card is for free! For how long can we bite the hand that is feeding us? The recent onion price fiasco was just a trailer. Picture abhi baaki hai doston!

Sixty-seventy per cent of India's population is living on less than Rs. 20 a day. A bottle of Diet coke for us? The electricity used in a day-night match could help a farmer irrigate his fields for more than a few weeks! Do you know that loadshedding is also class dependent? Two hours in metros, 4 in towns and 8 in villages. Now, who needs electricity more? A farmer to look after his crop day and night, irrigate, pump water and use machines or a few bored, young professionals with disposable incomes, to log on to Facebook and watch IPL?

There was much panic when there was swine flu. Every single death in the country was reported second by second, minute by minute. Why? Because it directly affected our salaried, ambitious, tech-savvy, middle-class. So there were masks, special relief centres, enquiry centres set up by government to please this section. On the other hand, 47 people are dying, every single day for the past 15 years. Anybody cared to do anything?

Centuries ago, there was a Roman emperor, called Nero. He was a strong ruler and also very fond of parties, art, poetry, drinking and a life full of pleasures. Once he decided to organise a grand party and invited all poets, writers, dancers, painters, artists, intellectuals and thinkers of society. Everybody was having a great time eating, drinking, laughing, and socialising. The party was at its peak when it started getting dark. Nero wanted the party to go on. So he ordered and got all the arrested criminals, who were in his jails, around the garden and put them on fire! Burnt them alive, so that there was enough light for the guests to keep on enjoying! The guests had a gala time though they knew the cost of their enjoyment. Now, what kind of conscience those guests had?

## **NERO'S GUESTS**

What is happening in our country is not different from Nero's party. We, the middle-class-young-well-earning-mall-hopping-IPL-watching and celebrating-junta are Nero's guests enjoying at the cost of our farmers. Every budget favours the already rich. More exemptions are being given to them at the cost of grabbing the land of our farmers in the name of SEZs, decrease in import duties in the name of neo-liberal policies, increase in the loan interest rates if the product is not worth lakhs and crores. Yes, that's what we are, Nero's guests!

I'm not against celebrations. I'm not against cricket. I'm not against World Cup. I would be the first person to scream, celebrate and feel proud of any of

India's achievements but, only if all fellow countrymen, farmers, villagers also stand with me and cheer; only if they do not take their own lives ruthlessly, only if there is no difference between interest rates for a Mercedes and a tractor. That would be the day I also zoom past on a bike, post-Indian win, with an Indian Flag in hand and screaming Bharat Mata Ki Jai. But no, not today. Not at the cost of my feeders. Until then, this is what I say. To hell with your malls. To hell with your IPL. To hell with your World Cup. And to hell with your celebrations.

(The writer's email is: [naren.singh.shekhawat@gmail.com](mailto:naren.singh.shekhawat@gmail.com))



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| 32 | Shri Yogesh Kumar Dahiya                       | Uttar Pradesh   | S/o Shri Mahavir Singh,<br>Farmers Farm Saharanpur, President,<br>Village-Sawalpur Nawada, Taluk-Saharanpur,<br>District-Saharanpur-247001<br>(UTTAR PRADESH)<br>Phone: 0132-2700394,<br>Mob: 09412016863<br>e-mail: ykd1966@yahoo.co.in   |
| 33 | Shri Ullas Menon<br>(Permanent Invitee)        | Tamilnadu       | Secretary General<br>UPASI Glenview<br>COONOOR-643101<br>Nilgiris, Tamilnadu<br>Phone: 0423-2230445<br>Mobile: 09842230460<br>Fax: 0423-2232030<br>e-mail: upasi@sancharnet.in, sg@upasi.org   |
| 34 | Shri Gopal Saxena<br>(Permanent Invitee)       | New Delhi       | Executive Director- IFFCO<br>Indian Farmers Fertilizer Cooperative Limited,<br>IFFCO Sadan, C-1, District Centre,<br>Saket Place,<br>New Delhi-110017.<br>Phone: 011-42592626, 011-42592609<br>011-26519824<br>Mobile: 09810199834<br>Fax: 011-26475035, 26463833<br>e-mail: gnsaxena@iffco.nic.in |
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| 36 | Shri Thakur Randhir Singh<br>(Special Invitee) | Jammu & Kashmir | Former Minister,<br>National President,<br>Aromatic Plants Growers Association of India,<br>298, E.P. Flat, Wazarat Road,<br>Jammu-Tawi-180001, JAMMU & KASHMIR<br>Phone: 0191-2543442, Mobile: 09419192677  |