

interview of the week

Organic manures boost productivity, prevents soil property loss



Sugyan
Choudhury

Odisha Potato Mission a gigantic failure

A tree is known by its fruits and a man by his achievements. **Dr Phalguni Das Biswas** is a scientist with a difference as his inventive genius could find its meaningful expression in delivering a quintessential system that provides a healing touch to the prevailing unstable agriculture by restricting productivity depletion, ecosystem pollution and food toxicity. He has published over 40 articles in international journals like *Central European Journal of Experimental Biology* and *The International Journal of Science and Technology*. There is a happy marriage of modern science with his repository wisdom of Vedic philosophy and its logical sublimation. His brain child Inhana Rational Farming (IRF) technology is the only technology in the organic world. More than 30 per cent organic tea production scenario in the country is guided by his magical technology, which has again been validated by the FAO-CFC-TBI project. He throws a gauntlet that his technology could be suitably extended to all the agricultural sectors, and if given a chance, his formula can rejuvenate the entire agricultural vista by translating PM Narendra Modi's vision of a Second Green Revolution in eastern India. But then what prevents his dreams from turning into a reality? The answer is possibly that in India which is infamous with red-tapism, a messiah scientist of his stature remains unheard.

In an interview to *The Pioneer*, Dr Das Biswas spoke to **Sugyan Choudhury** during his recent visit to the OUAT.

What about your research outfit and how do you think it can contribute to the Indian organic movement?

Organic farming is a comprehensive package that covers everything from sowing to harvesting. The Inhana Organic Research Foundation has developed a technology that can take any crop under any climatic condition in the country in a sustainable way.

tive nutritional backdrops and by eliminating chemical fertilisers. Then comes the final stage, which I call in my language as Green Cultivation where no amount of chemical or synthetic manure is allowed. Enough organic material for soil management is an essential prerequisite for zero-pesticide cultivation.

The Economic Survey of India 2015-16 says the Union Government is going to give fertiliser subsidies of nearly Rs 72,970 crore to farmers. Why can't the Government think for organic farming which can save such a huge national loss?

Fertiliser is responsible for soil degradation. Fertiliser has to be reduced, particularly nitrogenous fertilisers. In the event of the climatic change conditions of agriculture, it is the work cry. We have successfully experimented in all kinds of manures. Where organic manures are available, this technology can be administered on a cluster basis to farmers and for enabling them to remove chemical fertilisers. This also ensures bet-



Dr Phalguni Das Biswas

ter productivity, prevents soil productivity depletion and provides effective means for taking care of the plant system.

Why can't your technology be applied on a larger scale so that it may transform the agricultural scenario?

My technology could work wonders in the tea sector since that is a highly organised sector. The technology underwent transition down the line in quick succession and provided the desired results. But look at the agricultural sector of the country which stands unorganised. There is no apex body of farmers to whom I should hand over my technology with proper procedure. Moreover, 99% of the country's agricultural system comes under conventional agriculture where almost 90% of the farmers are marginal ones. Besides, when I take up the matter with either the Central Government or State Governments, which have their bureaucratic systems, they do never understand the technology.

Farmers' suicide is happening everywhere due to crop loss. How can your technology overcome drought?

Primarily, the future demand rests on a resilient agricultural system that can withstand climatic variations. Since our technology aims at improving physiological efficiency of plants by efficiently utilising the available resources, it can work in lesser water availability conditions. Where water is available, it can still provide better results through agronomical intoning of the plant management system. Our resources including land are limited, and the only option left is improving productivity through efficient soil management, plant management and agronomical efficiency through a resilient agricultural system. Thus, our technology can work effectively in such conditions keeping at bay the traumatic situations of the farmer consequently bringing the syndrome of suicide to a point of nullity.

Can your success story in the tea sector be repeated in all other sectors?

It is true indeed. When we say ecological sustainability, we mean all components of ecological intervention and ecological alignments that are made available which results in better growth, higher productivity with greater agronomical efficiency. When you are getting the support of all agronomical components, it results in better growth, higher productivity, and at the end of the day, it brings economic sustainability. We have experimented and have been successful not only in the tea sector but in all other agricultural sectors at very critical experiments and at validating points. But it depends upon the mindset of our planners, leaders and administrators, people those who matter at last.

What is the role of IRF in the FAO-CFC-TBI project?

The project was started by the Food and Agricultural Organisation (FAO) of the UN in 2000. The mission was to find out an effective way for sustainable organic tea cultivation. China and India, the two largest tea producing nations, were selected for the purpose. In India, the experiment was conducted at three climatic zones, namely, Darjeeling, Assam and south India. We were given to work in Assam, which alone produces 51% of the country's entire tea production. Our IRF technology at last showed that sustainable organic tea production is possible. IRF was evaluated at the soil management level, the crop productivity stage, at space management and, finally, at the quality tea production stage, and everywhere we proved that sustainable organic tea production is possible. Such a detailed organic product success story, in my knowledge, has not happened in India so far.

Can zero-pesticide cultivation be implemented in rice and exotic vegetables?

Food toxicity largely comes out of pesticides. We have to give stress on the base level by managing the soil. Large chunks of labour force or marginalised farmers can bring out sufficient organic manure and once this is made available, they can go for a second stage by providing effec-

You are aware of the PM's proposal for issuing soil health cards to farmers. What's your response to this?

I am extremely happy that for the first time Modiji is taking such a step when the soil nutritional balance has become tellingly negative. Our IRF has exhaustive research, done enough works on soil mapping. I shall be extremely happy if the PMO asks me to extend my technology for sharing the PM's vision of a vibrant agricultural India. I have no hesitation in hastening the process of the PM's proposed Second Green Revolution through our IRF technology if at all we are approached for the same.

World leaders after the Paris Summit are concerned over climate change and food security. Do you agree?

Climate change has its effect on crop failure. What we need for this is a resilient plant system supported by higher agronomic conditions and a productive soil system. Chemical fertilisers are doing more harm than good and should be substituted by organic farming. This way agriculture can mitigate climate change and we have lesser effect on our crops by a resilient plant system.

The Potato Mission in Odisha is a failure. What's your observation?

The Potato Mission in Odisha is a gigantic failure. Since there was no comprehensive system for seed production, no technology to combat disease, no adherence format, it happened so. The productivity of Odisha potato is 50% of the neighbouring West Bengal and much below than national average. You need to produce seeds with elaborate testing and at least five months before you go to the field. Even if the seeds are available with their worth, you need a comprehensive technology to support this. The Potato Mission was probably trusted with agencies having theoretical visage that consequently ended in fiasco. The Odisha Government can use our IRF technology for a time-sensitive crop like potato as for every project we take up the accountability till its successful mission. But again I am constrained to say bureaucracy here frustrates genuine scientific organisations.

How do you think that you can produce organic Mahaprasad to suit to the palate of the Lord Jagannath?

I must candidly confess that I am a strong believer in the cult of Lord Jagannath. People should not misunderstand me as I am a scientist devotee of the Lord, as I strongly believe that religion and science are not opposed to each other. Whatever advancement I have achieved in my research, it is owing to the blessings of the Lord. When the offerings in all other temples are called Prasad, here it is the Mahaprasad taken by devotees. Hence it should be free from pollutants, chemicals and toxic elements by producing rice through organic farming. That would be my greatest prayer to Him. I am ready to be on the job if I am asked by the temple administration or by the CM of Odisha.