



Healthy farmers and healthy environment

Farmers earlier cultivated crops mainly for their own use and for those local communities like potters, cobblers, launderers, builders, blacksmiths etc., who rendered services to them. But, as urban population increased, agriculture served the purposes of producing food for the urbanites, to earn cash income to buy what they need as well as pay service charges. To earn more money, they went for mono-cropping using agrochemicals and high yielding and hybrid seeds. When they were growing indigenous crops, they did not use any chemicals as they were suitable for local situations and climate. Those varieties were more nutritive and tasty. Since they were growing many varieties, there was not much risk involved due to climatic changes and pest infestation. Again, they used to make their own seeds, so that they had seeds, whenever they were to sow them. With the use of high yielding and hybrid seeds, they were compelled to use chemical fertilizers and pesticides, which resulted in diminishing soil health and its productivity. Not only the food, but also the fodder for cattle has chemical residues, resulting in various health problems, to both humans and livestock. As a result, the farm families as well as their drought animals became sick and weaker. Not only the soil productivity diminished, the labour output too has comedown. With the use of only wheat, paddy and maize as food all over the world, the nutritive and medicinal food crops have been neglected. This happened mainly owing to non availability of seeds and false prestigious lifestyles.

During the past 50 years, atleast 15 varieties of greens (uncultivated) which are considered to be weeds are lost due to the use of weedicides. Atleast 10 varieties of tubers have been displaced as a result of popularizing potatoes. Potatoes need expensive seed material, excessive fertilization, fungicides and insecticides, cold storage etc. On the other hand, tapioca and various tubers like dioscoria, sweet potatoes do not require any seed material from the market and intensive plant protection measures. They can be left in the soil till the monsoon rains without any care and additional expenses. It is high time our policy makers, agriculture scientists, NGOs and farmers have to search for the neglected species that could be grown easily without any chemicals which are harming both the soil and the humans. Even city dwellers have to be educated about the health hazards of using the so called popular and prestigious vegetables, fruits, like cabbage, cauliflower, hybrid tomatoes, potatoes, apples, grapes etc., which are being grown with poisonous

Collect raw fish thrash (head, guts and similar wastes, while cleaning raw fish for cooking) and add equal amount of powdered jaggery without any water and ferment it for 10 days in shade with a lid in a suitable earthen or plastic container. The meat and the jaggery get fermented and honey like syrup can be strained after 10 days. Add 10 to 15 ml of this FAA (strained syrup) to one litre water and spray on the crop during the vegetative growth as an alternative to chemical nitrogen. Farmers can make similar liquid manures by fermenting green leaves with some cow dung and water and use as manure.

agrochemicals. We have wonderful indigenous cereals like micro-millet, greens and vegetables that can be grown naturally, even under drought conditions. Government should immediately review its policies of subsidising agro-chemicals. It is a myth that food for the huge population could not be produced without the use of agro chemicals. It is not the lack of fertilizers but the lack of soil organisms and humus that is bringing down the crop yields.

Earlier to the use of agrochemicals, that is before 1960, the soil carbon content in Deccan Plateau was around 3%. But now in 2007 – 2008, it is less than 0.5%. It is because of mineralization of humus which is about 8 to 10 tonnes per acre an year in Deccan Plateau. With the use of Nitrogenous chemical fertilizer it would double to 16 to 18 tonnes per year per acre. If we do not put an end to the use of chemical fertilizers, soil carbon content will continuously diminish, crop production will come down drastically, and destruction of microbial population will increase. Most of the external input oriented and monoculture practitioners are in huge debts and giving up agriculture.

Huge population and their food security could be managed if our food is saved by better storage, used efficiently but not wasted, putting an end to using food grains to manufacture as animal feed; and improving the food distribution system. Most of our population spends less than 20% of their income on food. The rest is spent on unnecessary habits and requirements. Therefore, organic food production has to be given importance by diverting subsidies for organic farming system from subsidising agro chemicals.

Organic farming is not just giving up chemical fertilizers, hybrid seeds and pesticides. It is a way of integrating tree cropping, animal husbandry, soil management and water utilization, efficiently. Agriculture is therefore an integrated unit of healthy soil, water, animals, plants and the people. Otherwise it is a sick and unproductive unit. We have to switchover to bio-intensive farming system, in a phased manner on select areas, by applying tank silt, addition of green and dry leaf manure, compost, vermi compost, liquid manures, panchagavya. For instance, it is very simple to make fish amino acid (FAA) as a substitute for chemical nitrogenous manures as described in the box. Fortunately, a few enlightened farmers all over the world have been practising organic farming or bio-intensive farming and are successful and self-reliant.

L. Narayana Reddy

Srinivasapura, Via Marelanahlli, Hanabe Post,
Doddaballapur Taluk, Karnataka.

Phone : 080-27601103;

Mobile : 9343533632, 9367713963