

Fertiliser use and productivity — II

Countering effects of decontrol

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IN India we are much behind China in terms of fertiliser use as well as production, and yet, a sense of complacency seems to have crept in. That we need to increase fertiliser use is an incontrovertible fact. The target of foodgrains production to feed one billion mouths by the turn of the century is 235-240 million tonnes. During 1994-95, India produced about 186 million tonnes of foodgrains. Consequently, there is still a long way to go as we need to add another 49-54 million tonnes and that too in a short span of just about five years.

In some quarters, it has been argued that consequent to changes in dietary habits away from cereals to meat, eggs etc the requirements of foodgrains will diminish. This is a myth, as even to support increasing production of the latter, the requirement of cereals for providing the cattle/poultry feed will be even greater. Consequently, on account of this factor, there would be a strong case for increasing production of cereals, far from reducing it. In fact, in China, where the dietary habits are already biased in favour of meat etc., the foodgrains requirements are much more, necessitating a much higher level of chemical fertiliser use to support the desired production levels.

To realise the target, the Eighth Plan working group on fertilisers has projected all nutrient demand to be supplied through chemical fertilisers of about 20.6 million tonnes by the year 1999-2000. During 1994-95, we consumed only 12.8 million tonnes. In other words, we must add about 7.8 mt in just five years time. This indeed poses a big challenge.

No more land is going to become available for cultivation. We must necessarily depend on increased productivity of the crops. For this, plant nutrients in the desired quantities have to be supplied. There is a view that organic sources can provide the answer and that farming on this basis, will also reduce, or perhaps even eliminate, the risk to the environment. This is totally misleading.

When we talk of pollution, it is linked to the nitrogen or the phosphate which is not taken up by the crops and gets released either into the atmosphere or the land or into water. Such

effects would be there irrespective of the source of nutrient supply, i. e. organic sources or chemical fertilisers. Substitution of the latter by the former will not minimise the damage if any, to the environment.

But a more pertinent point is that it is virtually impossible for organic manure to provide total replacement for chemical fertilisers. To support foodgrains production of 186 million tonnes a year in 1994-95, about 12.8 mt of chemical nutrients were used. To produce the same quantity of foodgrains through organic manure would require a whopping 1 billion tonnes, which is next to impossible. Even assuming that this could be done, which is theoretical, the logistics of storage, handling, distribution and application will present insurmountable problems.

Biofertilisers (BF) are another possible source of supplying plant nutrients. Although their utility in enhancing yields has been tested, their application is yet to take off into a stage where commercial exploitation is possible on a large scale. In fact, there are biological limits to increasing the use of 'N' through biofertilisers beyond 20-25 kg per hectare. Moreover, there are serious constraints at the production, marketing, distribution and field level. The proof of the pudding is in eating. Despite several years of work, the present level of biofertilisers production in India is only 2,200 tonnes. And, even if its use were to increase substantially over the years, the contribution from this source will be miniscule in comparison with chemical fertilisers.

The foodgrains stocks of about 30 million tonnes appears to have triggered off a new mindset in which our planners tend to feel that India has already done enough on the food front; that we are producing more than our needs and that we could possibly afford a level of foodgrains production lower than the targets fixed by the planning commission. This is lopsided thinking.

We need to recognise that the surplus stocks are primarily because of the inability of the poor to afford high prices that have been systematically jacked up in recent years. Maintaining prices at reasonable and affordable levels would have generated a more realistic picture. Besides, we should not forget that the per capita availability of foodgrains has already declined from 510 gm per day in 1991 to 474 gms per day in 1994, which is not a good sign.

The equally important factor of weather should also not be ignored. We have had seven consecutive satisfactory monsoons so far which have enabled the increase in foodgrains production despite declining consumption of chemical fertilisers. With increasing use of fertilisers it would have been possible to achieve greater foodgrains production. One bad spell of monsoons is enough to change the situation dramatically and truly expose the weak elements in the emerging agricultural scenario.

Much damage has already been done by the lopsided changes in fertilisers policies in recent years. The decision to decontrol phosphatic and potassic fertilisers has led to reduction in their consumption, even as nitrogen consumption continued to increase due to continuation of the subsidy scheme and control on selling prices at a low level. As a consequence, while the consumption of fertilisers has been more or less stagnating in the last few years, even the NPK use ratio has deteriorated.

Considering the far-reaching ramifications of the developments in the fertiliser sector on Indian agriculture and the overall macro-economy, it needs much more care than it has received so far. With this at the back of the mind, there is an urgent need to stem the deteriorating trends and initiate corrective policy measures that would facilitate recovery and, thereafter, acceleration in the level of fertiliser use to achieve the targets of foodgrains production by the turn of the century.

(Concluded)

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