

# Balanced diet for Indian soils

*A phased hike in the urea prices may offset the imbalance in the use of N, P and K nutrients, says Uttam Gupta*

**A**N AREA of concern in Indian agriculture is the declining ratio in the use of nitrogen, phosphorous and potash (N,P&K) — all essential plant nutrients. The ratio has worsened from 5.9:2.4:1 in 1991-92 to 8.9:2.8:1 in 1994-95. This, against the ideal ratio of 4:2:1.

While the use of N rose from 8 million tonnes in 1991-92 to about 9.5 in 1994-95, the use of P declined from 3.3 million tonnes to 2.9. The consumption of K also fell from 1.36 million tonnes in 1991-92 to 1.06 during this period.

Before pondering over corrective steps, it is important to know what has gone wrong in recent years.

Prior to August 1992, the selling prices of urea, DAP and MOP (the three main sources of N, P and K, respectively) were Rs 3,060, Rs 4,680 and Rs 1,700 per tonne, respectively.

From August 25, 1992, based on the JPC recommendations, all phosphatic and potassic fertilisers were decontrolled. But urea remained under control. However, the controlled selling price of urea was cut by 10 per cent to Rs 2,760 per tonne or Rs 6 per kg N.

Alongside decontrol, the retention price (RP) and subsidy were also abolished. With no subsidy from the government, the selling price of these fertilisers had to rise, reflecting the cost difference between domestic production and import. And the gap was as high as 100 per cent for DAP, for instance.

Soon after decontrol, the government had announced various concessions — removal of customs duty on phosphoric acid imports, reduction in the rail freight of all decontrolled fertilisers, etc. A scheme of ad hoc concession was also introduced, providing for a flat subsidy of Rs 1,000 per tonne on MOP and DAP each, and computed on *pro rata* for other complex phosphatic materials using subsidy on DAP as the benchmark. The manufacturers were expected to cut their selling prices to this extent and claim reimbursement from the state/Centre.

These measures were, however, inadequate to dent the prospect of an impending high price. Soon after decontrol, the selling price of DAP rose to about Rs 7,000 per tonne, and that of MOP to Rs 6,000. The price of DAP has been rising since. Though the price of MOP declined to about Rs 4,500 per tonne now, it is still far above



the pre-decontrol level of Rs 1,700. In sharp contrast, the selling price of urea has stuck at Rs 3,320 per tonne after a 20 per cent hike in June 1994.

Thus, 1 kg of P nutrient now cost the farmer 2.6 times as much as nitrogen, against 1.13 times prior to decontrol. K nutrient, which was costing 40 per cent the price of N, is now priced even more than 'N'. The disequilibrium in selling prices led to the imbalance in the relative use of N, P and K.

A solution often suggested is to decontrol urea as well. In the decontrolled scenario, based on the reasonable cost of production and distribution (weighted average for industry), the farmers should eventually be paying about Rs 6,000 per tonne. (Imported urea would cost about Rs 10,000 per tonne and that of the new units, Rs 8,000-8,500 per tonne.) At Rs 6,000 per tonne, the price of 1 kg N works out to about Rs 13. At this level, the price of P (Rs 18.9) will be 1.45 times of N, close to the pre-decontrol ratio of 1.13.

Immediate urea decontrol would mean an 80 per cent price rise over the current level of Rs 3,320 per tonne. This has the potential of reducing nitrogen use drastically as happened in phos-

phate. But, a better balance by reducing the overall consumption of nutrients is undesirable.

The use of organic matter as a possible substitute will be inadequate for intensive and high yielding agriculture. For, the nutrient content in organic matter is low — about 1.2 per cent. This means two tonnes of organic matter would give just 22 kg of N.

According to the Eighth Plan Working Group on Fertilisers, all nutrient consumption by the year 1999-2000 will have to be 20.6 million tonne (13.5, now) to achieve a foodgrain production of 240 million tonne. This calls for an addition of 7 million tonne in five years or 1.4 million tonnes each year.

Against this backdrop, the objective should be to bring up the use of P and K without disturbing the current growth trend in N. An increase in the selling price of urea, say, by 25 per cent per annum, repeated over a period of three years, on an announced schedule, will be the right thing to do. On this basis, urea will sell at Rs 4,150 per tonne in 1996-97, at Rs 5,200 in 1997-98 and at about Rs 6,500 in 1998-99.

This would yield a subsidy saving of about Rs 1,500 crore a year,

which can be used to provide support to P and K fertilisers. A subsidy support of about Rs 2,000 per tonne to DAP (on a proportionate basis for other complexes) should be possible. With this, we can aim at a DAP price of about Rs 8,000 per tonne, to which the farmers can readily adjust.

Since the principal raw material cost alone is about 85 per cent of the production cost of DAP, and these are entirely imported, such support is essential, if the consumption level is to be raised.

To gain maximum effectiveness, the Centre should administer the *ad hoc* concession directly, without involving the state governments. The manufacturers should get payments directly from the Centre on presentation of claims duly certified by statutory auditors. Open-ended subsidy on fertilisers may not be desirable.

For urea, the suggested price hikes will help progressively reduce subsidy. And, if the administered prices of various inputs to the industry could be kept at existing levels (the JPC package on prices of gas and other hydrocarbon feedstock can be a model), at the end of the three year-period, we can aim at zero subsidy on urea.

This approach will also facilitate a smooth transition to eventual decontrol as farmers gradually get adjusted to the need for paying the economic price and the manufacturers are also not forced to sell at uneconomic prices.

In P and K fertilisers, before withdrawing subsidy support, ways and means of procuring raw material/intermediates at reasonable prices should be worked out. This would involve Indian companies setting up joint ventures abroad with buy-back arrangements or long-term contracting with major suppliers.

The uncertain policy environment is the biggest constraint. It can surely be blamed for the decline in the consumption of P and K fertilisers, imbalance in the use of N, P and K, slow down in the growth of domestic industry and vitiated investment climate. And yet, the burden of fertiliser subsidy continues to be high.

What we need is a coordinated, consistent and clear-cut policy. Apart from the policy support required for the P and K fertilisers, the government should clearly indicate the phases of decontrol. There should be no change of policy mid-way.