

**SULPHUR BASED FERTILIZER**

**Prelims:** Economics- Agriculture

**Mains:**

GS-III- Major crops cropping patterns in various parts of the country, different types of irrigation and irrigation systems storage, transport and marketing of agricultural produce and issues and related constraints; e-technology in the aid of farmers.

GS-III- Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System - objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.

**Context:**

- ▶▶ The Cabinet Committee on Economic Affairs (CCEA), gave its nod for raising the subsidized prices of **sulphur-based fertilizers**.

**Purpose:**

- ▶▶ The move is aimed at discouraging rampant use of nitrogen-phosphorous-potassium (NPK) fertilizers, which impacts soil quality.

**Sulphur fertilizer contains:**

- ▶▶ Sulphur: Amino acids, vitamins. Imparts dark green color.
- ▶▶ Stimulates seed production.

**Fertilizer Basics:**

- ▶▶ 15 of the essential nutrients are supplied by the soil to plants. Out of them, Nitrogen, Phosphorus and Potassium are called **primary nutrients or macronutrients**.
- ▶▶ Three more elements viz. **Calcium, Magnesium and Sulphur** are known as **secondary nutrients** because the deficiency of them is less likely to be a growth limiting factor. Calcium and Magnesium are generally added to soil to adjust soil pH.
- ▶▶ Sulphur generally gets added to soil via rain and release from organic matter in soil.

**Indiscriminate use of Fertilizers in India:**

- ▶▶ Indiscriminate use of synthetic fertilizers can result in soil contamination by heavy metals; reduction in the nutritional value of crops, reduction in soil fertility etc.

- ▶▶ Fertilizers contaminate the soil with impurities, which come from the raw materials used for their manufacture.
- ▶▶ **Over use of NPK fertilizers reduce quantity of vegetables and crops grown on soil over the years.**
- ▶▶ It also reduces the protein content of wheat, maize, grams, etc., grown on that soil.
- ▶▶ The carbohydrate quality of such crops also gets degraded.
- ▶▶ Excess potassium content in soil decreases Vitamin C and carotene content in vegetables and fruits.
- ▶▶ The vegetables and fruits grown on overfertilized soil are more prone to attacks by insects and disease.

### What are the major issues of Fertilizer Subsidies?

- ▶▶ The objective of the government is to support the farmers but the question is exactly how much of that really goes to the pocket of the farmers and how much is siphoned by the companies.
- ▶▶ It has been debated that the beneficiaries have been the large farmers and not small & marginal farmers.
- ▶▶ While deciding on the subsidy regime, it has to be kept in mind that Urea accounts for almost 50 per cent of fertiliser application and India is NOT self-sufficient in Urea production. At the same time, distorted subsidy regime may deplete the NPK use ratio. The normally accepted ratio is 4:2:1.

