

ELEMENTS OF FERTILIZER TECHNOLOGY

OP Gupta



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Product Description

Elements of Fertilizer Technology Authored by chemical engineer Om Prakash Gupta, this book is a comprehensive guide covering the entire fertilizer industry-from soil science to advanced manufacturing. It details the production of key fertilizers like Urea, Nitric Acid, and NPK blends, while addressing environmental challenges like pollution control. Designed for clarity, it is an essential resource for chemical engineering students, faculty, and industry professionals, combining theoretical knowledge with practical tools like objective-type questions. **Salient**

Features

- **Comprehensive Nutrient Analysis:** The book provides an in-depth exploration of primary, secondary, and micronutrients, detailing their specific roles in plant metabolism, growth, and disease resistance
- **Industrial Manufacturing Processes:** It offers technical insights into the production of nitrogenous, phosphatic, and potassic fertilizers, including detailed sections on ammonia synthesis and sulfuric acid manufacture
- **Complex NPK Formulation:** Readers gain a clear understanding of compound and complex fertilizers, including the chemistry behind NPK grades and various granulation techniques used in industrial production.
- **Environmental Stewardship:** A dedicated section focuses on environmental pollution control, covering air emission prevention, wastewater treatment, and the management of hazardous byproducts like fluorides and phosphogypsum.
- **Practical Application Strategies:** The text describes diverse fertilizer application methods-such as broadcasting, placement, and foliar treatment to help maximize nutrient use efficiency and minimize environmental runoff.
- **Sustainable Organic Perspectives:** Beyond synthetic chemicals, the book discusses organic manures and bio-fertilizers, highlighting their role in building soil organic matter and improving long-term soil fertility.
- **Assessment and Exam Prep:** To aid student learning, the book includes over 303 chapters of content supplemented by numerous objective and short-answer questions designed for competitive exam preparation.
- **Technical Glossary and References:** A robust glossary of industry terms and a factsheet on fertilizer application provide quick-reference value for both students and practicing engineers.



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Author

O.P. Gupta Om Prakash Gupta is basically being a chemical engineer, he has a practicing experience of efficient Energy management and HR functions in steel Industry for more than three decades. privileged to be the youngest writer of technical books in the country (for he had written his first book at the age of 24 years while doing M. Tech. at I.I.T Kanpur in 1979), he has authored many frontline books for engineering students. besides, being the regular faculty member in technical courses for Management Trainees (Technical), he has also visited England and France on a study tour sponsored by United Nations Development Program (UNDP) to study the scope of energy conservation in steel plants in 1987.

