Product Quality Along the Fertilizer Value Chain

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Outline of Presentation

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II. Importance of Product Quality
III. Factors Contributing to Quality of Fertilizers
IV. Scope of Fertilizer Quality Monitoring
V. Corporate Social Responsibility/Product
VI. Stewardship
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Background

- Fertilizer refers to any material, organic, inorganic, natural or synthetic which supplies one or more elements necessary for plant growth and development.
- Most commonly used fertilizer contain basic elements, namely: Nitrogen, phosphorus and potassium.
- Other fertilizers contain micronutrients such as Zinc, Boron, Copper, Manganese, Molybdenum, Iron which are required by plants in small quantity.
- Fertilization improves crop quality and optimize/maximize crop productivity.

Importance of Quality Control

- To assure the farmers of standard quality fertilizer.
- Quality control test determines fertilizer quality with respect to minimum and maximum nutrient contents.
- Validate the contents of fertilizer as claimed versus standards.
- It is a check against unethical business practice of selling adulterated fertilizer raw materials.
III. Factors Contributing to the Quality of Fertilizers

- Importance of quality raw materials (Primary/Secondary/Micronutrients)
  i.e. Nitrogen - Ammonia
  Phosphorus - Phosphate Rock
  Potassium - Solid ores layers in underground clay and salt deposits

Factors Contributing to the Quality of Fertilizers

- Technology
  • Manufacturing process
  • Granulation
  • Blending
  • Bagging
  • Redesign/replacement of existing/old equipment to improve efficiency
  • Process improvements and innovations which include the use of more effective catalyst/improve instrumentation, among others
IV. Role of Regulatory Agency

1. Registration of fertilizer products
2. Licensing of stakeholders- i.e. importers, exporters, manufacturers, indentors, distributors, dealers
3. Enforcement of standards promulgated by the government
4. Monitoring
5. Impose sanctions/penalties to violators of government regulations i.e. suspension, revocation of license, product registration

Fertilizer Product Registration/Licensing

- All fertilizer products, organic or inorganic, raw materials and ingredients for fertilizer, which are imported or produced locally, should be registered with the regulatory agency.
- Registration requirements submission of:
  - product specification supported by chemical analysis
  - mode of action
  - product type
  - results of efficacy tests conducted by an accredited/independent researcher to determine if fertilizer products are of acceptable quality and effective as guaranteed by the manufacturer and/or importer before they are marketed.
- Grant of licenses to qualified stakeholders i.e. Importers, Exporters, Manufacturers/Processors
Fertilizer Quality Control Monitoring

1. Product sampling from the different stakeholders i.e. importers/distributors/dealers on a regular basis

2. Testing /Laboratory Analysis of samples collected to validate claims in the label versus established government standards

VI. Product Stewardship/Corporate Social Responsibility

- Business Ethics and Transparency
- Product/ Environmental Stewardship
- Healthy and Safe Working Environment
- Employee Relations and Workplace Practices
- Farmer-Industry-Regulator Relations
- Community Relations
VII. Issues/ Concerns

- Adulteration of fertilizer
- Underweight fertilizer
- Off- specs fertilizer
- Misuse/Overuse of fertilizer
- Timely shipment of fertilizer vessel

FAKE AMMONIUM SULFATE