

Protocol for testing fertilizer products.

Fertilizer Products:

1. Suppliers should supply the duly filled application form when seeking the testing of samples through the DGA to the Chairman/Secretary of the committee.
2. Once the application form is submitted, the committee will scrutinize the information received and notify the supplier to submit the sample for testing if the product submitted is acceptable.
3. Once the samples are approved, a certification should be supplied to the authorities (fertilizer secretariat) that no radioactive materials /radio nucleotides are present in the fertilizers with the shipment of the stocks.
4. Laboratory tests are not necessary to be done at the DOA laboratories. Suppliers should supply reports from an accredited laboratory for the contents of the product. However, test may be performed when there is a doubt exists.
5. Green House testing should be done at three locations for all types of fertilizers including liquid fertilizers. Testing locations will be decided by the committee.
6. Field testing should be conducted for all fertilizer types for at least two seasons. Testing locations will be decided by the committee.

Guidelines for Green House testing.

Conduct replicated trials at each location minimum with three replicates.

01. Following tests should be included for each product
 - a. phytotoxicity of the product
 - b. problems to the applicator
 - c. presences of auxines/hormones etc.,
 - d. correction of deficiency situation of the containing elements.
02. Following standard references should be included in testing.
 - a. 1. No fertilizer, 2. Recommended fertilizer, 3. Recommended fertilizer + Organic manure, 4. Product alone, 5. 3 + Product, 6. 2+ Product
03. Minimum soil weight per pot
 - a. rice and potato 5 kg,
 - b. Vegetables and OFC 7 kg
 - c. Maize 10 kg
04. Soil samples should be analyzed for the nutrient contents, physical and chemical properties before and after experimentation to evaluate the effects on soil properties.
05. Fertilizer materials other than liquid fertilizers should give a statistically significant yield advantage over the recommended fertilizer package for that particular crop to be eligible for field testing.

06. Check for the improvement in quality: especially the keeping quality
07. All the products should be tested with the DOA recommended practices.

Guidelines for Field Testing. – Special fertilizer products.

01. Conduct replicated trials with minimum of three replicates.
02. Test for
 - Phytotoxicity
 - Disturbances to recommended cultural practices
 - Problems to the applicator.

Any other important observations that might influence the surrounding.
03. Minimum plot size: depend on the crop: standard size for varietal screening trials should be used.
Eg Rice: 18 sq m,
04. Same treatment combinations (specified under green house testing) should be used under field testing also.
05. Significant yield increase over the recommended fertilizer practice is expected from the new fertilizer product.
Expected yield increase > 20% over recommended application.
Before recommendations are being made, an opportunity will be given for the suppliers to visit the field testing sites.
06. Fertilizer testing committee will provide the recommendation to the Director General of Agriculture after evaluation of the results.

Before loading:

1. The importer should provide a certificate to the Director, Fertilizer Secretariat that the products are free from radioactive materials.

Testing fees

Green house / Pot experimentation

Item	Actual cost Rs.	Expected Rs.
Analytical work	35000.00	5000.00
Pot experimentation	75000.00	75000.00
Administrative cost	5000.00	5000.00
Salaries	40000.00	-
Departmental cost	60000.00	-
Departmental charges	10000.00	10000.00
Total	220000.00	95000.00

Field testing

Item	Actual cost Rs.	Expected Rs.
Analytical work	5000.00	5000.00
Pot experimentation	280000.00	280000.00
Administrative cost	10000.00	10000.00
Salaries	80000.00	-
Departmental cost	100000.00	-
Departmental charges	10000.00	10000.00
Total	485000.00	305000.00

Except the departmental charges, rest of the fees will be used for the testing purposes.