

Guidelines for Operationalization of Certificate Course on Integrated Nutrient Management for Fertilizer Dealers

Background

Fertilizer is one of the important Agri inputs in Agriculture. The fertilizers is mostly marketed by dealers. Most of the farmers are dependent on fertilizer dealers for information related to fertilizer and soil health management. However, majority of the fertilizer dealers do not have formal education in agriculture. It is essential therefore to impart technical knowledge on agriculture with special reference to soil health management and advisory based on scientific recommendations.

In this context, the National Institute of Agricultural Extension Management (MANAGE) has been entrusted to design a 15 days residential certificate course for fertilizer dealers and to equip them to acquire professional competency on plant health management and advisory services thereof. The certificate course may further help the public and private extension systems to utilize these trained candidates as para extension professionals.

Mission

To enhance the professional competency of fertilizer / prospective dealers and to develop them as para extension professionals on soil health management

Objectives

- ❖ To impart the technical knowledge on soil health management to the fertilizer / prospective dealers
- ❖ To provide knowledge about the rules and laws governing the fertilizers
- ❖ To develop the fertilizer / prospective dealers as para extension professional on soil health management

Methodology

The program will be organized continuously for a period of 15 days as a residential program for fertilizer / prospective dealers. The program consists of both Class room session and hands-on experience by the resource persons from the Agricultural University, Research station, free lancers and other experts on the subject and field / exposure visits to nearby agricultural farms / INM plots of Agricultural University/ Research Organizations/ KVKs / innovative farmers field, etc. The field visit may help them to acquire knowledge on recent advancement in soil health management.

Study material is provided to every participant of the certificate course in their local language and multimedia cum interactive videos / instructional devices are to be used in the class rooms.

The course is offered by SAMETIs and other Nodal Training Institutes (NTIs) selected by SAMETIs. The potential agricultural training institutes such as Agricultural Colleges, KVK, FTC, ATMA etc., could be selected as NTIs.

The selected NTI is to ensure the enrolment of 30 fertilizer dealers per batch for a period of 15 days, preferably from the surrounding locality to ensure location specific knowledge. The programme will be implemented and monitored by respective SAMETIs at state level with the overall guidance from MANAGE at National level. The course will be organized under Self-Finance mode.

The Roles and Responsibilities of Stakeholders

Role of MANAGE

- ✓ MANAGE is the implementing agency for conducting Certificate course for fertilizer / prospective dealers at National level
- ✓ Creating Awareness cum Orientation about the certificate course among various stakeholders.

Role of SAMETIs

- ✓ SAMETI is the State Nodal Implementing agency for organizing the Certificate Course to the fertilizer / prospective dealers at the state level under the overall guidance of MANAGE
- ✓ SAMETIs will give publicity of the course among the fertilizer / prospective dealers in the state.
- ✓ SAMETIs themselves can conduct the program with the help of facilitator and also conduct with the help of other potential Nodal Training Institutes.

Role of Nodal Training Institute (NTI)

- ✓ Agricultural Colleges, KVKs, FTC, ATMA, etc., will be NTIs at the regional/district level. The selected NTIs need to publicize the certificate course among the practicing and prospective fertilizer dealers for a wider reach of the program.
- ✓ The concerned NTIs are to collect the **total course fee i.e. Rs. 12,500 +18% GST per candidate** in the form of Demand Draft, in favour of SAMETI.
- ✓ The NTI has to submit the list of 30 enrolled candidates along with Demand draft of course fee to SAMETI.
- ✓ SAMETI has to retain an amount of Rs 7500/- (@ Rs 250 / per candidate) towards monitoring charges and an amount of Rs. 7500 has to be sent to MANAGE towards accreditation charges (i.e. 250 per head). **Further, the amount collected towards 18% GST shall be remitted through the GST portal by the concerned SAMETIs.** The remaining amount of Rs 3,60,000/- has to be transferred to NTIs concerned.
- ✓ NTIs have to utilize the amount as per the cost norms indicated in the Annexure – I in the guidelines.
- ✓ The Nodal Training Institute will get the entire expenditure audited by a CAG – Empanelled practicing Chartered Accountant. After the audit, the NTI will have to submit the UC to SAMETI.
- ✓ NTI is to conduct one midterm exam on the 8th day of the program and final exam on 15th day from the commencement of the program.
- ✓ The Facilitator is responsible for setting the midterm and final question paper and the results of which are to be sent SAMETIs for verification and award of the course certificate to the successful candidates.

Role of Facilitator

- ✓ The Facilitator is responsible for organizing the course which includes identifying the relevant resource persons based on the course framework, providing honorarium to the resource person, arrangement of facilities to the participants including food and accommodation, preparation of schedule for 15 days programme with both theory and

practical and get it approved by the SAMETI Director, preparation of exams and getting feedback from the participants, settlement of accounts, etc.,.

- ✓ The Facilitator has to send the weekly progress reports about the functioning of programme to the SAMETI i.e. on the 8th day and on 15th day.
- ✓ The Facilitator must ensure uniform and Id cards to the enrolled candidates
- ✓ The Facilitator should ensure practicals and hands - on experiences in the areas such as soil sampling, identification of nutrient disorders in the plants, INM practices, Site Specific Nutrients Management practices, soil, water, leaf analysis, etc

Eligibility Criteria for Candidates for Enrolment

The course is open to all the practicing fertilizer dealers and prospective dealers. The candidate with the minimum qualification of 10th pass will be selected for enrolling to the course. The application form is given in Annexure – III.

Course fee: The fertilizer / prospective dealer has to pay the entire course fee as mentioned below

- Course Fee – Rs. 12,500/-
- GST (18%) – Rs. 2,250/-
- **Total Course Fee – Rs. 14,750/-**

Eligibility Criteria for the Program Coordinator

The programme coordinator should have sound knowledge on agriculture with good managerial and administrative capacity. The agricultural professional with good communication and technical knowledge in the subject of soil health and fertilizer management may be given preference.

Curriculum

The curriculum consisting of theory practicals and field visit are given in Annexure – II. The coverage of content should be based on the local need and relevance. Minimum 30 to 40 % of the content should have local content.

Time Schedule

Pre - lunch	: 10.00 A.M. to 1.00 P.M. (with a tea break)
Lunch	: 1.00 P.M to 2.00 P.M.
Post- lunch	: 2.00 P. M. to 5.00 P. M. (with a tea break)

Maintenance of Attendance

Each candidate is required to fulfil a minimum of 80 % of attendance both in theory and field visit for appearing the final exam.

Evaluation

The performance of the candidate is evaluated based on Midterm Examination, Final Examination, Assignment and Viva – Voce as indicated below

Distribution of marks

S.No.	Pattern of evaluation	Marks
1.	Midterm exam	30 marks
2.	Final exam	50 marks
3.	Assignment	10 marks
4.	Viva voce	10 marks
Total		100 Marks

Result

1.	40 and above Marks	Pass
2.	60-80 Marks	First Class
3.	Above 80 Marks	Distinction

Certification

The successful candidates will be awarded certificates jointly by MANAGE and SAMETI.

Annexure - I**COST NORMS FOR 15 DAYS CERTIFIED COURSE FOR FERTILIZER DEALERS**

Sl.No.	Details	Total Amount (Rs.)
1.	Food and Accommodation @ Rs.500 / person / day for 15 days x 30 participants	225000.00
2.	Study Material @ Rs.700 / person for 30 participants including Video films and DVDs	21000.00
3.	Exposure Visit @ Rs.10000 / visit for 5 visits	50000.00
4.	Honorarium to the Facilitators for 15 days	15000.00
5.	Monitoring charges @ Rs.250 / candidate for SAMETI for 30 candidates	7500.00
6.	Accreditation charges @ Rs.250 / candidates for MANAGE for 30 candidates	7500.00
	Sub-Total:	326000.00
7.	Add: Institutional charges and other Administrative expenditure to SAMETI /NTI (Honorarium to the resource persons, hall rent, TA to the resource persons, group photo, banner, and other miscellaneous expenditure)	49000.00
	Course Fee	3,75,000
	GST 18%	67,500
	GRAND TOTAL	4,42,500.00

Note: Total Course fee is Rs. 12,500 + GST 18% is Rs. 2,250 = Rs. 14,750.00 per candidate for 15 days for a batch of 30 candidates under Self-Finance Mode.

CURRICULUM

Sl. No.	THEORY AND PRACTICAL CLASSES
1	Plant, Plant nutrients and Uptake of nutrients by plants Identification of different types of fertilizers, micronutrients, soil amendments etc.
2	Agro ecological situation; Soil types and Plant nutrients in soil (Primary, Secondary & Micronutrients)
3	Role / Functions of Primary and Secondary nutrients in plants and their deficiency Symptoms
4	Role/ Functions of Micro- nutrients in plants and their deficiency Symptoms
5	Available forms of different plant nutrients and related fertilizers with percentage of nutrients
6	Inorganic Fertilizer: Types of Fertilizers based on Ingredient (Straight , Complex and Mixed Fertilizers) and based on Physical Form (Solid and Liquid Fertilizers), - Computation of amount of fertilizer, Micronutrients on the basis of percentage of nutrient and doses for different major crops - Hands - On experience on calculation of fertilizer dose through Computer / Apps - Qualitative testing of fertilizers for impurities/ adulteration - Preparation of Fertilizer solution for foliar spray
7	Concept of Soil fertility, Soil Health and Role of Organic Manure Environmental impact of excessive use of fertilizer application Preventing measure to avoid the soil fertilizer erosion
8	Different sources of Organic Manure (FYM, Green Manure, Vermicompost, Crop residue)
9	Production procedure of different Organic Manure/ Compost (FYM, Green Manure, Vermicompost), Crop residue management
10	Different Microbial/ Bio-inoculant/ Bio- Fertilizer: Rhizobium, Azotobacter, Phosphate solubilizers, Azospirillum, Blue Green Algae... , Bio-liquid manure (Panchagavya etc)
11	Method of application of different Bio-fertilizer including Doses of bio- fertilizer; Dos and Don'ts in application of Bio-fertilizer
12	Concept of Acid Soil, Saline Soil, Sodic soil; Soil Toxicity, its effect on plant nutrition uptake; Different Soil Amendments: Lime, Gypsum; their importance and Reclamation of Soil
13	Importance of Soil / water Testing, Soil / water Sampling techniques, Different simple Soil Testing Kits (Soil Testing Fertilizer Recommendation: STFR meter; Medha Parishak)

14	Interpretation of Soil Testing Results; Soil Health Card; Determination of amount of fertilizer/manure/ lime etc, for correction/ reclamation of soil on the basis of soil test result.
15	Concept of INM, Role of crop rotation, placement of different fertilizer for better Input use efficiency
16	Rating of soil nutrient status, recommended dose of fertilizer/ manure for different Major Crops
17	Fertilizer Control Act-1985, its important amendments; Handling, storage and transportation of fertilizer; Function of POS machine
18	Communication skills and Innovative extension tools including ICTs to reach out to farmers

Sl. No	FIELD VISITS
1.	Exposure visit to field for Collection and processing of soil / water / leaf samples for testing and Assessing soil fertility status using STFR Meter, and test based inferences. Including visit for soil test labs, water and micro nutrients analysis labs.
2.	Field visit for hands – on Experience on Application of fertilizer, Lime, Gypsum for correction / reclamation of soil on the basis of soil test result
3.	Visit to Scientific compost / vermicompost / Enriched Vermi compost Units for hands-on experience on preparation of Compost / Bio - inoculum / Vermi wash preparation / Panchgavya etc.
4.	Exposure Visit to Bio Fertilizer Labs and hands on experience of Bio Fertilizers for seed treatment, root dipping of sapling and soil application etc.
5.	Exposure Visits to INM fields and organic farms.

Affix recent
Passport size
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here

Annexure – III

Application form for Enrollment in Certificate Course on Integrated Nutrient Management

Year _____

Centre _____

S.No. (For office use only): _____

(Please fill the form in capital letter in your own handwriting carefully)

Name in Capital Letters	:			
Father's / Guardian's Name	:			
Date of Birth	:			
Gender (Male / Female)	:			
Category (SC/ST/OBC/General)	:			
Physically Disabled (Yes / No)	:			
Tel. No. with STD Code	:			
E- mail ID	:			
Postal Address for Correspondence	:			
Educational Qualification				
Sl. No.	Examination	Year	School / College	University
1.	SSC			
2.	Intermediate			
3.	Degree			
4.	Post-graduation			
Are you an input dealer		:	Yes / No	
Are you sponsored by any Input Company / Organization		:	Yes / No	
(If yes, Name and details of the sponsoring firm)		:		

