

**Government of Tripura
College of Agriculture, Tripura**

No. F. 27(6)/CAT/MANAGE-Training (INM)/2022-23

Date: 30.11.2022

Certificate Course on Integrated Nutrient Management for Fertilizer Dealers

College of Agriculture, Tripura will be going to organise 15-days Certificate Course on Integrated Nutrient Management for 5th batch of fertilizer dealers under Self-finance mode (100%) during 2022-23. Interested dealers/candidates (must be 10th pass) of Tripura are requested to nominate themselves through submitting duly filled application form to the **office of College of Agriculture, Tripura** within **7th December, 2022** along with following documents.

1. Duly filled in application form
2. 2 (two) recent passport size photograph
3. Self attested copy of educational qualification (minimum Madhyamik/ Class X)
4. Self attested copy of pesticide or fertilizer dealership license
5. Self attested copy of any photo Identity card (Adhaar/voter/Passport etc.)

Candidates will be temporarily selected on first –cum- first basis and eligibility criteria as per guidelines of MANAGE, Hyderabad and T-SAMETI, Govt. of Tripura. Dealers/candidates having pesticide or fertilizer dealership license will be given preference. Tentative date of commencement of training will be intimated to the selected candidates later on. For details, please visit College website <http://coatripura.ac.in/> and website of Department of Agriculture & Farmers' Welfare (<https://agri.tripura.gov.in/>)

Sd/-
(Dr. T.K. Maity)
Principal
CAT, Lembucherra

Guidelines for Operationalisation of Certificate Course on Integrated Nutrient Management for Fertiliser Dealers

Background

Fertiliser is one of the important agri inputs in Agriculture. The fertilisers is mostly marketed by dealers. Most of the farmers are dependent on fertiliser dealers for information related to fertiliser and soil health management. However, majority of the fertiliser 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 fertiliser 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 utilise these trained candidates as para extension professionals.

Mission

To enhance the professional competency of fertiliser / 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 fertiliser / prospective dealers
- ❖ To provide knowledge about the rules and laws governing the fertilisers
- ❖ To develop the fertiliser / prospective dealers as para extension professional on soil health management

Methodology

The program will be organised continuously for a period of 15 days as a residential program for fertiliser / 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 Organisations/ 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 fertiliser 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 organised under Self-Finance mode.

The Roles and Responsibilities of Stakeholders

Role of MANAGE

- ✓ MANAGE is the implementing agency for conducting Certificate course for fertiliser / 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 organising the Certificate Course to the fertiliser / prospective dealers at the state level under the overall guidance of MANAGE
- ✓ SAMETIs will give publicity of the course among the fertiliser / 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 publicise the certificate course among the practicing and prospective fertiliser dealers for a wider reach of the program.
- ✓ The concerned NTIs are to collect the course fee i.e. Rs. 12,500 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). The remaining amount of Rs 3,60,000/- has to be transferred to NTIs concerned.
- ✓ NTIs have to utilise 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 practising 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 organising 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 fertiliser 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 – II.

Course fee: The fertiliser / prospective dealer has to pay the entire course fee of **Rs. 12,500/per candidate.**

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 fertiliser 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 fieldvisit 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.

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), <ul style="list-style-type: none"> - 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
Photograph
here

Annexure – II

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 | : | | | |
| Phone no (Whats app) | : | | | |
| 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 | |

