

No. 11017/29/2021-PMI-II (Pt.) (e-36537)
भारत सरकार/Government of India
रसायन और उर्वरक मंत्रालय/Ministry of Chemicals & Fertilizers
(उर्वरक विभाग/Department of Fertilizers)

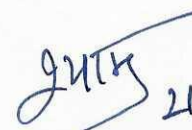
शास्त्री भवन/Shastri Bhawan,
नई दिल्ली/ New Delhi-1
दिनांक/Dated: **21st June, 2024**

कार्यालय ज्ञापन/OFFICE MEMORANDUM

Subject: Standard Operating Procedures (SOPs) for stock verification and quality checking for Sales of bulk/ packaged FOM/LFOM/PROM under MDA scheme

In continuation of this Department's O.M. of even number dated 20th September, 2023 forwarding therewith the Guidelines on Market Development Assistance (MDA) for Promotion of Organic Fertilizers (copy enclosed), the undersigned is directed to forward herewith the Standard Operating Procedures (SOPs) for stock verification and quality checking for Sales of bulk/ packaged FOM/LFOM/PROM under MDA scheme (along with enclosure), for information and necessary action.

2. This issues with the approval of Hon'ble Minister of Chemicals & Fertilizers.

 21/06/2024.

(Shyam Sundar Agrawal)
Director (Non-Chemical Fertilizers)
Tel. 26100203

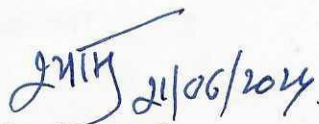
To

- (i) Secretary, Department of Agriculture & Farmers Welfare, Krishi Bhawan, New Delhi.
- (ii) Secretary, Ministry of Drinking Water & Sanitation, Pt. Deendayal 'Antyodaya' Bhawan, CGO Complex, Lodhi Road, New Delhi.
- (iii) Secretary, Ministry of Petroleum & Natural Gas, Shastri Bhawan, New Delhi.
- (iv) Secretary, Ministry of New & Renewable Energy, Atal Akshay Urja Bhawan, CGO Complex, Lodhi Road, New Delhi.
- (v) Secretary, Department of Expenditure (Ministry of Finance), North Block, New Delhi.
- (vi) Senior Adviser, NITI Aayog, NITI Bhawan, Sansad Marg, New Delhi.
- (vii) Secretary, Ministry of Housing & Urban Affairs, Nirman Bhawan, New Delhi.

- (viii) Secretary, Department of Animal Husbandry & Dairying (Ministry of Fisheries, Animal Husbandry & Dairying), Krishi Bhawan, New Delhi.
- (ix) Chief Secretaries of all States/UTs.
- (x) DG: ICAR
- (xi) Director (FS), Department of Fertilisers, Udyog Bhawan, New Delhi.
- (xii) Director (Agriculture)/Commissioner (Agriculture) of all State Governments/UTs Administration.
- (xiii) CMD/MD of all Fertiliser Marketing Companies.
- (xiv) CMD/MD of CBG Operators.
- (xv) State Energy Development Agencies
- (xvi) All Officers of Department of Fertilisers.
- (xvii) Director (NIC), Department of Fertilizers
- (xviii) Deputy Secretary (IT), Department of Fertilizers - for uploading on website
- (xix) Assistant Director (OL), Department of Fertilizers - for Hindi version

Copy to:

- (i) PS to Hon'ble Minister of Chemicals & Fertilizers
- (ii) PS to Hon'ble Minister of State for Chemicals & Fertilizers
- (iii) PPS to Secretary, Department of Fertilizers
- (iv) PPS to Additional Secretary & Financial Adviser, Department of Fertilizers
- (v) PPS to Additional Secretary, Department of Fertilizers



(Shyam Sundar Agrawal)
Director (Non-Chemical Fertilizers)
Tel. 26100203

STANDARD OPERATING PROCEDURES (SOPs) FOR STOCK VERIFICATION AND QUALITY CHECKING FOR SALES OF BULK/PACKAGED FOM/LFOM/PROM UNDER MDA SCHEME

On the basis of suggestions received from State Governments and interaction of the Department of Fertilizers with State Governments and CBG operators on various occasions and as discussed further on 10.05.2024 by Secretary (Fertilizers) with CBG operators, Fertilizer companies and representatives of State Governments, the following Modified Standard Operating Procedures (SOPs) are being issued to streamline the CBG based products (FOM, LFOM & PROM) sales to farmers. These SOPs are to be followed by the States, CBG units & Fertilizer companies in letter and spirit.

A. General Directions

1. B1 (Quantity) & B2 (Quality) are to be issued by the State agriculture department based on the stock at the units for each batch.
2. The authorized officer(s) of State agriculture department should visit and verify the batch wise stock for checking of quantity and quality of the FOM/LFOM once every fortnight (batch size may vary from unit to unit). The size of the batch will be maximum quantity of 2,000 tons.
3. Issuance of B1 for LFOM is to be done based on capacity of the storage **tanks**/tankers.



4. B1 & B2 Certificates will be issued within a week from the date of verification.
5. B2 will be issued on the basis of NABL/State Labs certificate.
6. Sale of fertilizers should be carried out from the stock for which B1 & B2 have already been issued by the State Government.
7. State agriculture department is to be informed by the CBG units before the sale of FOM/LFOM/PROM. State agriculture Department should check the stocks on getting such information from the CBG units as an additional measure of verification.
8. **The State Governments shall maintain the record of photographs of the stock with date and time during the verification of quantity and quality by them for issuing the B1 and B2 certificates along with other documents.**
9. **The dosage prescribed under the Package of Practice {PoP} developed by ICAR {copy attached} is to be adhered to by the CBG units & State agriculture departments for sales & verification of FOM/LFOM/PROM, respectively.**
10. Gas production by CBG units may be taken as base for determining corresponding quantity of production of FOM/ LFOM for issuing B1.



B. One time relaxation for issuing B1 & B2 for the sale of FOM/LFOM during the period 1st October, 2023 to 15th May, 2024:

1. B2 can be issued based on NABL certificates.
2. B1 can be issued based either on stock or sales verification.
3. For the verification of quantity based on stock, the procedure mentioned at point 1-10 of Part -'A' is to be followed.
4. For the verification of the quantity based on sales, all the three procedures mentioned below are mandatorily to be followed by the State Governments:
 - a. On the basis of the PoS sale of the corresponding batch and period.
 - b. On the basis of physical verification at farmer's field to whom the stock has been sold.
 - c. On the basis of the weigh bridge receipt.

JNB
21/06/2024.



No. 11017/29/2021-PMI-II (Part-1) (e-34602)

भारत सरकार/Government of India

रसायन और उर्वरक मंत्रालय/Ministry of Chemicals & Fertilizers

(उर्वरक विभाग/Department of Fertilizers)

शास्त्री भवन/Shastri Bhawan,

नई दिल्ली/ New Delhi-1

दिनांक/Dated: 20th September, 2023

कार्यालय ज्ञापन/OFFICE MEMORANDUM

Subject: Guidelines on Market Development Assistance (MDA) for Promotion of Organic Fertilizers - Regarding

Organic fertilizers are decomposed derivatives of plant and animal sources such as agri-waste, cattle dung, poultry droppings and domestic sewage. They help in improving the soil texture, increase carbon content of soil, enhance water holding capacity of soil and increase the bacterial and fungal activity inside the soil. Increased use of organic fertilizers will help in balanced use of nutrients thereby reducing excess use of chemical fertilizers which is one of the key elements for sustainable agriculture.

II Fermented Organic Manure (FOM), Liquid Fermented Organic Manure (LFOM) and enriched Phosphate Rich Organic Manure (PROM) are organic fertilizers which are by-products of Bio-Gas (BG) and Compressed Bio-Gas (CBG) plants established under umbrella of Galvanizing Organic Bio-Agro Resources Dhan (GOBARdhan) initiative. Government of India has approved the Market Development Assistance Scheme for promotion of FOM/LFOM/PROM produced in the BG/CBG units under GOBARdhan with a budget outlay of ₹1451.82 Crore for 3 years, i.e., from FY 2023-24 to FY 2025-26.


III The detailed guidelines for Market Development Assistance (MDA) are as follows:

1. Eligibility Criteria:

- 1.1 The Market Development Assistance @ ₹1,500/MT will be provided for the sale of FOM/LFOM/PROM produced at BG/CBG plants established under umbrella Galvanizing Organic Bio-Agro Resources Dhan (GOBARdhan) initiative only. These GOBARdhan units are supported under Sustainable Alternative Towards Affordable Transportation (SATAT) scheme of Ministry of Petroleum & Natural Gas (MoP&NG), 'Waste to Energy' programme of Ministry of New & Renewable Energy (MNRE), Swachh Bharat Mission (Grameen) of Department of Drinking Water & Sanitation (DDWS), etc.


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- 1.2 Registration of the BG/CBG units with the GOBARdhan portal of the Department of Drinking Water & Sanitation is the pre-requisite condition for availing Market Development Assistance (MDA).
2. **Marketing Strategies:**
 - 2.1 The manufacturing units registered under Unified GOBARdhan portal will have the option to market FOM/LFOM/PROM through Fertilizer Marketing Companies in packed form or they can market themselves either in packed form or in bulk or both.
 - 2.2 **Marketing of Packed Fertilizers:** Marketing of FOM/LFOM/PROM should be done in packed form by Fertilizer Marketing Companies and/or by manufacturing plants.
 - 2.3 **Bulk Sale:** Marketing of FOM/LFOM/PROM in bulk/loose form by manufacturing plants is allowed for two quarters (October, 2023 to March, 2024) on experimental basis, subject to necessary notification by the Department of Agriculture & Farmers Welfare (DA&FW) and maintaining of quality standards of Fertilizer Control Order (FCO), 1985, as amended from time to time. On the basis of sustained supply and certified quantity during experimental period, appropriate decision will be taken regarding bulk sale.
 - 2.4 **Conformity to FCO Specifications:** FOM/LFOM/PROM should be in conformity to the specifications mentioned in Fertilizer Control Order (FCO), 1985, as amended from time to time.
 - 2.5 **Quality Assurance for Packed/Bulk Fertilizers:** Quality testing shall be ensured at Government notified laboratories/NABL accredited private laboratories. The quality test report is to be validated by State Agriculture Department or State Energy Development Agency, before issuing 'B2-MDA' Certificate.
 - 2.5.1 **Packed Sale:** In case of marketing in packed form, batch-wise quality test should be done.
 - 2.5.2 **Bulk Sale:** In case of bulk sale, sampling and quality testing will be done for every dispatch.
 - 2.6 Primary Agricultural Cooperative Societies (PACS) may be engaged as aggregator by the Fertilizers Marketing Companies/manufacturers, wherever feasible.


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3. **Application for Market Development Assistance (MDA):**

3.1 **Marketing through Fertilizer Companies:**

3.1.1 **EoI, Tender and MoU Process:** In case of marketing through Fertilizer Marketing Companies, the Fertilizer Marketing Companies will float an Expression of Interest (EoI) inviting tenders from the manufacturers of FOM/LFOM/PROM and thereafter, marketing arrangements, including base price for procurement, packaging and transportation may be finalized mutually through MoU. The modalities for transfer of MDA amount is to be decided through mutual consent.

3.1.2 **Setting up of manufacturing facilities for PROM:** Fertilizer Marketing Companies will explore the feasibility for setting up of PROM manufacturing facilities units in / near the premises of CBG plants for enrichment of the FOM/LFOM and marketing the enriched product. There will be a Committee consisting of members from NFL, RCF, FACT, HURL & IFFCO to study and suggest modalities of setting up PROM manufacturing facilities units in/near the premises of CBG plants for enrichment of the FOM/LFOM, including costs involved.


3.1.3 **Intimation of willingness to market - Application to DoF:** The Fertilizer Marketing Companies interested to market FOM/ LFOM/PROM are required to submit a letter intimating their willingness to market the FOM/LFOM/PROM along with details of registered manufacturers, with whom purchasing agreement for supply of FOM/LFOM/PROM has been made and other information as per **Annexure-I**, to the Department of Fertilizers (DoF) for approval.

3.1.4 **Uploading data on iFMS:** The Fertilizer Marketing Companies which are already having iFMS ID will upload the details regarding quantity of FOM/LFOM/PROM purchased from the manufacturers and quantities sold, MRP, etc. as per existing procedure.

3.2 **Marketing by Manufacturers:**

3.2.1 **Intimation of willingness to market - Application to DoF:** The manufacturers interested to market FOM/LFOM/PROM in packed form or in bulk/loose form are required to submit a letter intimating their willingness to market FOM/LFOM/PROM along with details of manufacturing unit and other information as per **Annexure-II**, to the Department of Fertilizers (DoF) for approval.

3.2.2 **New Module for capturing data:** A new module will be introduced on iFMS portal for registering manufacturing companies intending to market their products, either in packed or bulk form. DoF will allot an ID to the manufacturing units to enable them to upload the quantity of FOM/LFOM/PROM produced, data relating to sales, MRP, remaining stock, quality certificate, 'B1-MDA' & 'B2-MDA' forms, etc. on the new module. Adequate safeguards will be introduced in the system to ensure quality of FOM/LFOM/PROM.


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3.2.3 The production/sale data and quality certificate are to be verified regularly by State Agriculture Department/State Energy Development Agency.

4. **Packaging Regulations:**

4.1 All packaged commodities rules are to be adhered to by the marketing companies. The marketing entities will be required to print Maximum Retail Price (MRP) along with applicable Market Development Assistance (MDA) on the bags clearly. Any sale above the printed Net MRP will be punishable under the EC Act/Relevant Act.

4.2 Apart from Market Development Assistance given by the Department of Fertilizers, in case any State provides subsidy on FOM/LFOM/PROM, the MRP will be reduced by the marketing entities to that extent and the subsidy so passed will also be passed on to the farmers in terms of lower MRP.

4.3 Each bag of FOM/LFOM/PROM should display its constituents as given in FCO, the marketing entities names, the manufacturers' name, shelf-life and other facts as per relevant rules.

5. **Monitoring:** A Steering Committee chaired by Secretary (Fertilizers) and comprising of at least Joint Secretary level officers from the Department of Expenditure, NITI Aayog, Department of Agriculture & Farmers Welfare, Department of Drinking Water & Sanitation, Ministry of New & Renewable Energy, Ministry of Housing & Urban Affairs, Ministry of Petroleum & Natural Gas, and Department of Animal Husbandry & Dairying will oversee operational aspects and detailed guidelines for Market Development Assistance including packaging size, retail price, manner of disbursement of MDA, subject to the approval of Hon'ble Minister of Chemicals & Fertilizers on the recommendations of the Steering Committee.

6. **General Payment Procedure for claiming Market Development Assistance (MDA):**

6.1 The marketing entities of FOM/LFOM/PROM are allowed to claim MDA from DoF for the quantity sold through PoS based on the requisite information provided by them in prescribed Proforma 'B1-MDA' duly certified by the State Agriculture Department/State Energy Development Agency.

6.2 State Agriculture Department/State Energy Development Agency is required to issue Quality Certificate (Proforma 'B2-MDA').

6.3 The marketing entity is required to submit a copy of Quality Certificate issued by the Government approved laboratory/NABL accredited private laboratory duly certified in Proforma 'B-2 MDA' by State Agriculture Department/ State Energy Development Agency, along with the claim for MDA payment for that particular month.


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- 6.4 DBT claims shall be generated through iFMS portal by the marketing entities (**Annexure**). The claims will be processed in the Department of Fertilizers and the Market Development Assistance will be released to the marketing entities. The marketing entities are required to claim MDA within two months from the month of sale of FOM/LFOM/PROM.
7. **Documentation/Submission of Records:** The marketing entities/manufacturers are required to maintain the records of permanent nature in continuity year after year and which may be made available to the DoF or Fertilizer Flying Squad of DoF or any agency authorized by DoF for audit/verification at the time of inspection or whenever otherwise called for as specified at **Annexure-III**.
8. **Research & Development proposals:** The detailed proposals on Research & Development are invited from Central/State Research Institutes and non-private fertilizer cooperatives, for seeking financial support from DoF.
9. The guidelines on procedure for submission and processing of claims for payment of Market Development Assistance (MDA) of ₹1,500/MT on sale of organic fertilizers/manures produced at plants under umbrella GOBARdhan initiative shall be applicable with effect from the date of actual sales captured on iFMS.
10. The Department of Fertilizers may, from time to time, call for any additional information from marketing entities as deemed fit for the smooth and efficient implementation of the scheme.
11. The above guidelines have the approval of Hon'ble Minister of Chemicals & Fertilizers.
12. These guidelines have been placed in the website of the Department of Fertilizers, <https://www.fert.nic.in>.


(मनोज कुमार/MANOJ KUMAR)

Deputy Secretary to the Government of India
[E-mail: manojkumar1616@nic.in]
011-2338 7612


To

- (i) Secretary, Department of Agriculture & Farmers Welfare, Krishi Bhawan, New Delhi.
- (ii) Secretary, Ministry of Drinking Water & Sanitation, Pt. Deendayal 'Antyodaya' Bhawan, CGO Complex, Lodhi Road, New Delhi.
- (iii) Secretary, Ministry of Petroleum & Natural Gas, Shastri Bhawan, New Delhi.

- (iv) Secretary, Ministry of New & Renewable Energy, Atal Akshay Urja Bhawan, CGO Complex, Lodhi Road, New Delhi.
- (v) Secretary, Department of Expenditure (Ministry of Finance), North Block, New Delhi.
- (vi) Senior Adviser, NITI Aayog, NITI Bhawan, Sansad Marg, New Delhi.
- (vii) Secretary, Ministry of Housing & Urban Affairs, Nirman Bhawan, New Delhi.
- (viii) Secretary, Department of Animal Husbandry & Dairying (Ministry of Fisheries, Animal Husbandry & Dairying), Krishi Bhawan, New Delhi.
- (ix) Secretary, Department of Agriculture Research & Education (DARE) and Director General, Indian Council of Agricultural Research (ICAR), Krishi Bhawan, New Delhi.
- (x) Chief Secretaries of all States/UTs.
- (xi) Director (FS), Department of Fertilisers, Udyog Bhawan, New Delhi.
- (xii) Director (Agriculture)/Commissioner (Agriculture) of all State Governments/UTs Administration.
- (xiii) Chief Executive, State Energy Development Agencies.
- (xiv) CMD/MD of all Fertiliser Marketing Companies.
- (xv) CMD/MD of CBG Operators.
- (xvi) All Officers of Department of Fertilisers.
- (xvii) Director (NIC), Department of Fertilizers.
- (xviii) Deputy Secretary (IT), Department of Fertilizers - for uploading on website.
- (xix) Assistant Director (OL), Department of Fertilizers - for Hindi version.

Copy to:

- (i) PS to Hon'ble Minister of Chemicals & Fertilizers.
- (ii) PS to Hon'ble Minister of State for Chemicals & Fertilizers.
- (iii) PPS to Secretary, Department of Fertilizers.
- (iv) PPS to Additional Secretary, Department of Fertilizers.
- (v) PPS to Joint Secretary & Financial Advisor, Department of Fertilizers.


20 Sept. 2023

(मनोज कुमार/MANOJ KUMAR)

Deputy Secretary to the Government of India

Details of Fertilizer Marketing Companies

1. Name of Fertilizer Marketing Company:
2. Address of Plant:
3. Address of registered office of Fertilizer Marketing Company:
4. TIN No. of Fertilizer Marketing Company:
5. PAN No. of Fertilizer Marketing Company:
6. Quantity intended for marketing:
7. Brand name of organic fertilizer:
8. GOBARDhan Portal Registration No.
(of Manufacturing unit)
9. Bank account details like Account No., IFSC Code, Name of account holder,
address of the bank

Date:

Place:

Signature of the Authorized Signatory of the Company
(Name, Designation with Seal)

Details of Organic Fertilizer Manufacturer

1. Name of organic Fertilizer Manufacturing Company:
2. Address of Plant:
3. Address of registered office of manufacturer:
4. TIN No. of manufacturer:
5. PAN No. of manufacturer:
6. Installed capacity (Annual in MT):
7. Quantity intended for marketing:
8. Brand name of organic fertilizer:
9. GOBARdhan Portal Registration No.
10. Bank account details like Account No., IFSC Code, Name of account holder, address of the bank

Date:

Place:

Signature of the Authorized Signatory of the Company
(Name, Designation with Seal)

List of documents to be maintained by manufacturers:

- Stock registers showing for each day opening balance, production, quantity dispatched and closing balance.
- Daily report of production and stock of each product duly authenticated by Manager (Production).
- Dispatch/stock transfer advice, serially numbered and signed by Manager (Sales).
- Dispatch instructions issued from Headquarters or other controlling entities.
- Gate passes, bearing printed serial numbers together with a register of gate passes issued, showing number and date of the gate pass issued each day and the quantities moved out of the factory on the basis of gate passes (i.e., the daily recapitulation statement).
- Register of dispatches giving the full particulars of gate pass numbers, date, dispatch/stock transfer advice and the number and date of the letter containing the dispatch instructions, against each entry in the register.
- Sales invoices should be serially numbered and supported by warehouse delivery note/orders.
- Sales day book.
- Delivery Challan issued from headquarter/company's godown or any entities controlling stocks, as also copies of Delivery Challan duly signed by the receiver in confirmation of receipt of consignment.
- Stock Register of raw materials purchased and consumed, separately for indigenous and imported raw materials. Registration/license details obtained from the concerned authorities.
- The marketing entities may ensure that the RG-1 register, stock register, gate pass register, raw material register and all other connected records are duly authenticated by the statutory auditors/chartered accountants with name, date, designation and stamp. These records shall also to be signed by the authorized officer of the company. The cuttings, over-writings and insertion of figures in the above records shall be attested by the authorized officer.

Proforma 'B1-MDA'

(Quantity Certificate for Organic Fertilizers)

Government of (_____)
Commissionate/Directorate of Agriculture (_____)

QUANTITY CERTIFICATE

No. _____ Dated: _____

To
Joint Secretary/Additional Secretary,
Department of Fertilizers,
Ministry of Chemicals & Fertilizers,
Government of India, New Delhi.

(Kind Attention: Director (FS), Department of Fertilizers, Room.473, 'E' Wing,
Udyog Bhawan, New Delhi)

1. Name of the Claimant with full address: (_____)
2. Name of the State/UT/District where product(s) verified: (_____)/(_____)
3. Claim for the month in which product(s) verified in State/UT/District:
(Month)/(Year)
4. Report on the verification of fertilizers: (Quantity in MTs)

S. No.	Product	Brand	Total Quantity verified by the State	Sub-standard/ Short Quantity during the month	Net Quantity eligible for MDA
(1)	(2)	(3)	(4)	(6)	(6=4-5)
1.					

5. It is certified that the above statement is correct with regard to verification of (_____) fertilizer by State, exclusively for supply of the same to farmers, either directly or through the approved (marketer/retailer) for agriculture use only.

Place:

Date:

Director of Agriculture
(With Name and Seal)

Copy to: (Company's name)

Note: In case, the State Government /UT Administration is not able to certify the quality of fertilizer within stipulated period of one month, the same should be certified within a maximum period of three month and suitable action will be taken by the DoF accordingly.

Proforma 'B2-MDA'

(Quality Certificate for Organic Fertilizers)

Government of (_____)
Commissionate/Directorate of Agriculture (_____)

No. (_____)
Ref. No. of 'B1-MDA': (_____)

QUALITY CERTIFICATE

To
Joint Secretary/Additional Secretary,
Department of Fertilizers,
Ministry of Chemicals & Fertilizers,
Government of India, New Delhi.

(Kind Attention: Director (FS), Department of Fertilizers, Room. 473, 'E'
Wing, Udyog Bhawan, New Delhi)

1. Name of the Claimant with full address:
(Company's Name and address)
2. Name of the State/UT/District where product(s) received: (Name of State Government)
3. Claim for the month in which product(s) received in State/UT/District:
(Month, Year)
4. Report on the verification of quantity of fertilizers by the State: (Quantity in MT)

1	Name of State/UT		
2	Name of Manufacturers & Location		
3	Office of the Brand(s)		
4	Month and Year for which Quality Certificate is being issued		
5	It is Certified that the samples have been tested in a notified laboratory as per Fertilizer Control Order (FCO) and following samples were declared non-standard and therefore are not eligible for MDA.		
S. No.	Product	No. of samples failed	Total quantity not eligible for MDA (in MTs)

Director of Agriculture
(With Name and Seal)

Place:
Date:

Copy to: (Company's Name)

Annexure

**Proforma for claiming Payment of Market Development Assistance (MDA)
by manufacturer/marketers for Organic Fertilizers under DBT**

Claim under Notification No. (____) dated (____)
Bill No. (____)
Date: (____)

To
Director (FS)
Department of Fertilizers,
New Delhi

Sir/Madam,

We hereby submit the claim for payment of MDA as per details given below:

1. Name of Claimant with full address: (____)
2. Claim for the week ending: __/---/-----
3. Details of the Claim:

S. No.	Product	State	Opening Balance (MTs)	Supply Received (MTs)	Availability (MTs)	Quantity Sold (MTs)	Closing Balance (MTs)	Quantity Eligible (MTs)	Rate of MDA (Rupees/MT)	Total MDA payable (Rupees)
1	2	3	4	5	6 (4+5)	7	8	9	10	11(9*10)
1.										
2.										
3.										

4. Certified:
 - a. That the statement given above is correct to the best of my knowledge and belief.
 - b. That I/We undertake to refund the over payment due to quality issue or any other issue from future bills along with penal interest.
 - c. That the quantity claimed in the above bill will not be claimed in the future claims(s).
 - d. That the quantity sold and claimed has been used for agriculture purpose only.

Please pay by crediting Current Account No. (____) with (---Bank---), (Bank Address), (IFSC Code) (MICR Code)

(Digital Signature of CA/Auditor/Statutory Auditor of Company)

(Digital Signature of Authorised Officer of Company)

Passed of Rs. (Amount in figures)
(Amount in words)

DDO

(Digital Signature of DDO)

S – 18/1/2022-SBM-DDWS
Government of India
Ministry of Jal Shakti
Department of Drinking Water and Sanitation
Swachh Bharat Mission (Grameen)

4th Floor, Pt. Deendayal 'Antyodaya Bhawan'
CGO Complex, Lodhi Road
New Delhi – 110 003
Date: 08.08.2023

OFFICE MEMORANDUM

Subject: - ICAR reports on FOM/LFOM -reg.

The undersigned is directed to enclose herewith, reports received from Indian Council of Agriculture & Research (ICAR) on interim package of practices for important crops (FOM/LFOM) and analytical parameters and characteristics of enriched bioslurry, for information and further necessary action.

Encl: As above

8/8/23

(Vikas Srivastava)
Under Secretary to Govt. of India
e-mail: vikas.sri@nic.in

To,

1. Secretary, D/o Fertilisers
2. Secretary, D/o Animals Husbandry & Dairying
3. Secretary, M/o Housing & Urban Affairs
4. Secretary, D/o Agriculture and Farmers Welfare
5. Secretary, M/o Petroleum and Natural Welfare
6. Secretary, M/o New and Renewable Energy

Copy for information to:

1. Nodal Officers (GOBARdhan)
2. PMU members (GOBARdhan)
3. Secretary, D/o Agriculture Research & Education and DG ,ICAR
4. PS to JS & MD (DDWS/GOBARdhan)

CABINET REPORT

**Action taken report of ICAR
on
GOBARdhan**



Secretary level review meeting on 04-08-2023

**Indian Council of Agriculture Research
Department of Agriculture Research and Education
MoAFW, GOI, New Delhi**

Cabinet report of ICAR on GOBARdhan

Target:

ICAR to submit the interim package of practices report by end of July 2023

Package of practices for important crops (FOM – Fermented organic manure; LFOM – Liquid fermented organic manure):

1. Rice

- In transplanted puddled rice crop, application of FOM (Bio-slurry enriched and stabilized to 2.1% N) @ 2.5 t/ha during nursery preparation and @1.25 t/ha after transplanting is recommended along with the recommended dose of fertiliser (RDF) (120 kg N/ha, 60 kg P₂O₅/ha, 60 kg K₂O/ha).
- In direct seeded rice, the liquid FOM is recommended @ 1.25 t/ha along with the RDF.
- LFOM should be used @ 500 Litre per ha for 2 to 3 times

2. Wheat

- In wheat, soil application of FOM (dried bio-slurry) @ 6-8 t/ha, 10 days before sowing is recommended along with recommended dose of fertiliser (120 kg N/ha, 60 kg P₂O₅/ha, 60 kg K₂O/ha) for sustainable productivity.
- FOM should be applied before last plough and ploughed into the soil

3. Maize

- Application of FOM @ 4 to 6 t/ha is recommended along with 80% of recommended dose of fertiliser (150 kg N/ha, 60 kg P₂O₅/ha, 30 kg K₂O/ha) for optimum productivity.

4. Pea (*Pisum Sativum* L.)

For optimum green pod yield of pea, application of FOM (with 2.8% N) and urea in 1:3 ratio is recommended. This practice resulted in improved microbial activity in the soil.

5. Okra

For optimum productivity of okra crop, FOM application @ 5 t/ha is recommended along with recommended dose of fertiliser (100 kg N/ha, 60 kg P₂O₅/ha, 40 kg K₂O/ha).

6. Spinach

Application of 25% of recommended nitrogen through FOM and 75% recommended nitrogen through fertiliser produced optimum yield of spinach. The FOM needs to be mixed in soil at least 15-20 days before sowing. Side or top dressing or fresh FOM application need to be avoided.

7. Baby corn

Application of FOM @ 3 t/ha along with full recommended dose of fertilizer ((150 kg N/ha, 60 kg P₂O₅/ha, 20 kg K₂O/ha) is recommended for optimum production of baby corn. Spray of 0.3% iron is recommended along with the above practice. After application of FOM, field need to be ploughed and ridges and furrows to be formed at a spacing of 45 cm x 25 cm.

Important Note:

- Don't apply FOM / LFOM as foliar spray. Use this along with recommended dose of fertilizers for each crop.
- FOM should be applied 7-10 days before sowing in all the crops.
- pH of FOM should be in between 6.5 to 7.5.

NRM/ICAR

Analytical parameters and characteristics of enriched bioslurry produced at IARI and collected from field

S.No	Parameters	Test Method	Unit	Enriched bio-slurry	Bio-slurry
1	pH (2% solution)	Glass electrode pH meter	Number	7.8	6.4
2	Moisture @ 106°C for 18 Hours	FCO-1985 (Gravimetric analysis)	%	71	45
3	Nitrogen as N fresh bioslurry sample Nitrogen in oven dried Nitrogen in enriched oven dried sample	Kjeldahl Method	%	0.4 1.2 3.1	0.2 0.5
4	Phosphate as P ₂ O ₅ Phosphate as P ₂ O ₅ oven dried sample	FCO-1985	%	0.11 0.42	0.12
5	Potassium as K ₂ O Potassium as K ₂ O oven dried sample	FCO-1985	%	0.34 1.15	0.35
6	Total Organic Carbon Total Organic Carbon oven dried sample	Dichromate Method & TOC analyser & CHNOS analyser	%	9.8 33.9	13.5
7	C/N Ratio C/N Ratio, oven dried sample	By Calculation	%	26.7 26.7	67.5
8	K ₂ O+ P ₂ O ₅ + N K ₂ O+ P ₂ O ₅ + N oven dried sample	By Calculation	%	0.8 2.9	0.67
9	Electrical Conductivity (2% Solution)at 25°C	EC meter Standard method of Soil Analysis, C.A. Black	dS/m	0.47	0.85
10	Arsenic as As oven dried sample	Digestion Followed by AAS	mg/kg	Not Detected	1
11	Cadmium as Cd oven dried sample	Digestion Followed by AAS	mg/kg	Not Detected	2
12	Copper as Cu oven dried sample	Digestion Followed by AAS	mg/kg	8.4	9.5
13	Chromium as Cr oven dried sample	Digestion Followed by AAS	mg/kg	6.0	7.2
14	Lead as Pb oven dried sample	Digestion Followed by AAS	mg/kg	10	8
15	Zinc as Zn oven dried sample	Digestion Followed by AAS	mg/kg	63	46