



Republic of the Philippines
OFFICE OF THE SECRETARY
Elliptical Road, Dillman
1100 Quezon City

MEMORANDUM ORDER

No. 26
Series of 2020

SUBJECT: SUPPLEMENTARY GUIDELINES ON FERTILIZER COMPONENT AND FOOLPROOF MONITORING SYSTEM FOR THE RICE RESILIENCY PROJECT

I. FERTILIZER COMPONENT OF THE RICE RESILIENCY PROJECT (RRP)

A. Procurement

The DA- Central Office shall procure the fertilizer requirement of the project through negotiated emergency procurement. Considering the volume required per region, procurement will be on a per lot basis where one (1) lot represents the requirements of a region.

B. Delivery

Procured fertilizers will be delivered by the supplier to specific drop off points in the municipality/city as determined by the Municipal Agriculturist/City Agriculturist (MA/CA) in coordination with the Provincial Local Government Unit (PLGU)—Office of the Provincial Agriculturist and DA-Regional Field Office. For the month of May 2020, 50 percent of the requirement of the region will be delivered to drop-off points and the remaining 50 percent will be in the month of June 2020.

C. Inspection, Acceptance, and Distribution

Authorized DA-RFO personnel will inspect and accept the delivered fertilizers. Before the actual distribution to farmers, the fertilizer will be entrusted to the MA. Distribution of fertilizers to farmer beneficiaries will be spearheaded by the MA following the scheme buy 2 bags-take 2 bags free for inbred (certified and good seeds) and buy 2 bags- take 3 bags free for hybrid seeds planted on a per hectare basis. After the fertilizers had been withdrawn by the farmer beneficiaries, acknowledgement forms will be prepared with the farmers' signature indicating the name of farmer, address and farm location, contact number, quantity and kind of fertilizer must coincide with the rice area planted. Separate master list of farmer beneficiaries will be prepared for each sub-project; the enhanced RCEF, expanded RCEF and expanded hybrid.

D. Analysis of Nitrogen Content

Analysis of the urea fertilizer will be conducted by the Fertilizer and Pesticide Authority (FPA) or authorized government laboratory identified by the Department of Agriculture following the FPA standard test.

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E. Specification

Urea fertilizer, prilled or granulated, will be packed in a 50-kilogram bag with plastic lining and containing nitrogen content of 46 percent as per FPA standards.

F. Payment

Procured fertilizers will be paid after delivery to agreed drop-off points in the city/municipality and after the personnel authorized by the DA Central Office had inspected and accepted the fertilizers. Signatures of DA-RFO personnel will be validated by DA-Central Office.

Advance payment of 15 percent of the total contract amount will be paid to supplier upon signing of the contract.

G. Management of Undistributed Fertilizers

Fertilizers not distributed after the planting season will be inventoried and collected for storage to government warehouses for use in succeeding season.

H. Fertilizer Recommendation for Rice – 2020 Wet Crop Season

Time of Application	Kind of Fertilizer	Quantity (Bag/ha)		Remarks
		Inbred (CS/GS)	Hybrid Seeds	
Basal or 4-7 DAP	Complete Fertilizer (14-14-14) Urea (46-0-0)	3	3-4	Seedling stage- For better root and plant development
		1	2	Early tiller development
15-20 DAP	Urea (46-0-0)	2	2	Maximum tillering stage- To maximize productive tiller development
35-40 DAP	Urea (46-0-0)	1	1	Panicle Initiation Stage - For grain development (more grains per panicle)
45-50 DAP	Muriate of Potash (0-0-60)	-	1	For grain development (well-filled grains)

Note :

- Yield components in rice (nitrogen has major role in b, c, and d).
 - Number of plants or hills per hectare
 - Number of panicles per plant (productive tillers)
 - Number of filled grains per panicle
 - Weight of individual grains
- Nitrogen is very volatile when exposed, so application must be in split to maximize efficiency and the soil must be wet or with standing water (3-5 cm). The more split application, the better.
- Commercial organic fertilizers (10 bags per hectare) maybe applied as basal, if available.



II. FOOLPROOF MONITORING SYSTEM FOR THE RICE RESILIENCY PROJECT

A. Project Rationale

The application of digital agriculture is a critical tool in an effective monitoring, evaluation and transparency that is necessary in the proper implementation of the RRP. Digital agriculture involves the use of digital technology in agricultural production with the application of tools and information to make well-informed decisions and improve productivity. These tools include the internet, big data, cloud computing, Internet of Things, drones, and sensors and other monitoring solutions.

Digital agriculture is an essential component of a foolproof monitoring and evaluation system (FMES). FMES is developed such that it would be difficult to make a mistake or an error during the implementation of RRP. It is so designed to make it impervious to human incompetence, error or misuse.

B. Geotagging the Master List of Farmer-Beneficiaries (FBs)

The master list of FBs for the RCEF-Enhanced; Expanded Inbred Rice Production (Beyond RCEF Areas); and the Expanded Hybrid Rice Production will be prepared by the Municipal Local Government Unit (MLGU-Office of the MA/CA). All FBs must be listed in the registry system for basic sectors in agriculture (RSBSA). The master list paper document will be converted into PDF format using a software that supports it. The PDF converted master list will be inserted with respective geotagging data (e.g. codes/geotags and/or latitude and longitude). The geotagged converted master list can now be stored and is web-searchable.

C. Change Control

Any changes in the content of the geotagged converted master list will be instituted in a controlled and coordinated manner. Change control (CC) is a formal process and is set up to enable project team to modify the scope of the project using specified controls and policies. The CC process to be followed in the geotagged converted master list: a) define the item to be changed and the reason(s) for change(s), b) once the request is documented, submit in writing to DA Central Office thru the Assistant Secretary for Operations following the DA memorandum format, c) written response should be prepared by DA CO once the request was reviewed, and d) final decision of DA CO to be officially communicated to the requesting party two (2) days after receipt of the request.

D. Data Security, Protection and Storage

The DA Regional Executive Director RED shall appoint a person-in-charge (PIC) to be responsible in ensuring data security, protection and storage of pertinent RRP data and documents. The geotagged master list will be prepared by the PIC. He will be responsible in protecting the master list in a database from destructive forces and from the unwanted actions of unauthorized users, such as a cyber-attack or a data breach. The PIC has the legal authority of securing data so that only him (PIC) can access or modify the master list. Moreover, the PIC will ensure that the web-based master list will not be corrupted and will be properly stored and backed-up.



E. Integrity Circles Representatives

Signature of MAFC, PAFC or RAFC representative will attest to the veracity of the master list. The PIC will check the presence of MAFC, PAFC or RAFC representative signature(s) in the master list.

F. Mandatory Publication

The PIC is required to publish the geotagged master list in the RFO website. The PIC will generate a computer link or hyperlink, which is a reference to data that is easily accessed by clicking the highlighted text. The hyperlink will be the avenue for monitoring and evaluating, sharing or viewing shared information. Mandatory publication ensures transparency and to prevent master list padding to occur.

G. Citizen Participation

During the distribution of seeds and fertilizer, representative from MAFCI, BAFCI or any farmer's organization in the area must be present. In the master list of FB (acknowledgment form), FB signature and thumbmark are needed. A photo attesting to the actuality of the receipt of seeds and fertilizer by the FB is likewise needed.

III. PRODUCTION ADVISORY

The dissemination of production advisories to its intended audiences shall be implemented by various agencies such as PhilRice, IRRI, and ATI and monitored by the PIC.

- a. *Nutrient management*- Applying nutrients to the crop is essential in managing soil fertility so the plants grow and develop normally. Nutrients are important in rice crop growth and development. Nutrient inputs as fertilizers fill the gap between what the crop needs and what is currently present in the soil, water, and air. Having too much or too less of the nutrients can affect the yield. A number of crop problems can be related to inefficient management of nutrients and nutrient imbalances in the field. Site-Specific Nutrient Management (SSNM) (<http://www.knowledgebank.irri.org/step-by-step-production/growth/soil-fertility#site-specific-nutrient-management>) and/or Crop Manager (<http://www.knowledgebank.irri.org/step-by-step-production/growth/soil-fertility#crop-manager>) developed by IRRI can be useful to enables farmers to dynamically adjust fertilizer use, by supplying optimum amounts of nutrients at critical time points in the crop's growth to produce high yields. The use of these tools shall be monitored by the PIC. The PalayCheck System is geared toward this concept of integration as it adapts and localizes recommendations on the best management strategies at the farm level, taking into account the interactions among practices and other factors contributing to yield, grain quality, and healthy environment (<https://www.philrice.gov.ph>). The adoption of the PalayCheck System shall be monitored by the PIC.
- b. *Pest and disease management* - Farmers can lose an average of 37% of their rice crop to pests and diseases. Hence, in addition to good crop management, timely and accurate diagnosis can significantly reduce losses. Conduct regular field-monitoring from the early stage of crop growth onwards to identify potential

pests at their initial stage of development. Preventive disease management options can be applied before it spreads and reaches intolerable levels. For insect pests, preventive management options such as use of resistant varieties and synchronous planting are preferred. Insecticide application is a corrective measure to be deployed selectively when needed. IRRI's "Rice Doctor" is an ICT-based tool that supports diagnosis of insect pests and diseases and enables farmers to make timely decisions for better pest management. It helps farmers access global knowledge and information to address their challenges (<https://www.irri.org/news-and-events/news/rice-doctor-innovative-technological-approach-enhance-rice-production>). The PalayCheck System can also be consulted for pest and disease problems. A farmer facing a pest and disease problem should seek advice from a professional or contact the ATI MLGU or DA-CO.

- c. *Climate and disaster risk reduction and management plan* – Rice production is regularly visited by climate-related hazards particularly flooding, drought, erosion, strong winds, sea level rise and storm surge. RFOs are hereby directed to prepare and submit to the Climate Resilient Agriculture Office (CRAO) within four (4) months upon receipt of this Order a climate and disaster risk reduction management plan to reduce the adverse impact of these hazards on the rice value chain within their jurisdiction. The CRAO shall provide technical assistance in the preparation of this plan and monitor its implementation.
- d. *Climate investment planning tools* – The preparation of the climate and disaster risk reduction and management plan shall be assisted with the use of the investment planning tools developed under the Adaptation and Mitigation Initiative in Agriculture (AMIA) such as the Climate Risk Vulnerability Assessment (CRVA) <https://ciatph.github.io/#/crva>, Climate Risk Profiles (CRP) and Climate Resilient Agriculture (CRA) Investment Prioritization <https://ciatph.github.io/#/crads>, and the National Color-Coded Agricultural Guide (NCCAG) map <https://farmersguidemap.gov.ph> where applicable.
- e. *Climate-weather informed farm advisories* – a critical component of the climate and disaster risk reduction management for rice is the provision of farm and fishery advisories based on weather-climate outlook by each RFO. To achieve climate resilient rice production, the farm-fishery advisories based on localized 10-day and/or seasonal weather forecasts shall be prepared by the Regional Technical Working Groups (TWG) and disseminated to partner LGUs, farmers' organizations, associations or groups. These farm-fishery advisories serve as an early warning that would guide to the most practical, economic and effective management decisions in the farming activities. Using these advisories as immediate reference would minimize input and production losses and therefore support increased productivity. The PIC shall monitor the dissemination of climate-weather informed farm advisories in the region.





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IV. CREDIT AND INSURANCE

Seed and fertilizer support will be provided by DA as major farm inputs to increase the local rice supply under RRP. These inputs must be supplemented in order to attain maximum productivity and increase farmers' income. The purchase of additional inputs requires capital not often available to farmers but which can be made available through credit. RFOs must provide information through various media outlets on the various credit programs available to farmer organizations. The ATI and the ACPC shall provide the necessary technical assistance to LGUs and farmer organizations to help them access these credit programs. All credit programs shall include crop insurance. The PIC shall monitor the adoption of these credit programs by farmer-beneficiaries in the region.

V. MARKETING ASSISTANCE

The DA Agribusiness and Marketing Service shall develop a marketing assistance plan for existing and various future scenarios. The plan shall include a strong participation by farmers' organizations and the private sector.

VI. MONITORING OF RRP YIELD INCREMENT

The PIC will randomly choose thirty (30) FBs for each municipality or city in the region who received the seeds and fertilizer support. The PIC will ask the respondent FB, through their registered contact number, of their harvest (in kg) before and after the RRP. The difference in yield (kg) will be recorded as the increment in yield. The mean or the arithmetic average will be used as it is the most appropriate measure for RRP. Assessment of yield increment will be performed in all three RRP sub-projects for each municipality/city, province and region. Yield increment for each sub-projects shall be recorded and published by PIC in the RFO website.

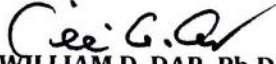
VII. SUPPLEMENTAL GUIDELINES

The DA-RFOs and BARMM are hereby authorized to formulate detailed supplementary guidelines to address peculiar situations per region and shall be subject to approval of the Undersecretary for Operations.

VIII. EFFECTIVITY

This Order shall take effect immediately and shall remain in force until revoked in writing. All other orders inconsistent herewith are deemed revoked.

Done this 26 day of May, 2020.


WILLIAM D. DAR, Ph.D.
Secretary

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DEPARTMENT OF AGRICULTURE

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