

2023

PhilRice R&D Highlights



TECHNOLOGY MANAGEMENT AND SERVICES DIVISION



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Technology Management and Services Division

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EXECUTIVE SUMMARY

The Technology Management and Services Division (TMSD) of PhilRice is dedicated to advancing rice farming through technology transfer, capacity building, and innovation. TMSD plays a role in promoting the adoption of new rice varieties, farming practices, and tools by organizing training programs, workshops, and field demonstrations. These initiatives target a wide range of stakeholders, including farmers, agricultural extension workers, technicians, and local government units, equipping them with the knowledge and skills needed to improve rice production.

TMSD manages key projects like the Technology Demonstration and Learning Farms (TDLF), which showcase the adaptability of newly released varieties and help farmers implement best practices. Through various knowledge-sharing activities, TMSD supports the sustainable development of rice farming systems, increases yields, and improves the livelihoods of farmers across the country.

TMS 232-000: Technology Demonstration and Learning Farms (TDLF)

Glenn Y. Ilar

Demonstration farms are established and managed by PhilRice to determine the adaptability of newly released varieties in the project sites; facilitate their adaption/adoption; and enhance the availability and accessibility of their seeds. The TDLFs double as learning fields and actual hands-on areas for training participants agricultural extension workers or AEWs, farmer leaders, smallholder farmers, farm-school owners, technical staffers, and other rice stakeholders) to help them develop their knowledge and skills. In 2023:

Thirteen on-station (6 in dry season or DS and 7 in wet season or WS) and 19 off-station TDLFs (8 in DS and 11 in WS) showcased the performance of 25 newly released (500- and 600-series) inbred varieties, popular/farmers' preferred varieties, adverse environment varieties, and three public and nine private hybrid varieties. The inbreds surpassed the 5t/ha yield in most sites, with NSIC Rc 506 and Rc 508 performing better on-station; Rc 506 and Rc 512 standing out off-station.

Data and information on the adaptability of the TDLF varieties were gathered for better positioning and adoption. Rc 506 that was released for the Visayas was also impressive in Luzon and Mindanao averaging 6.01 (crop cut) and 5.45t/ha (actual) across eight off-station sites. Rc 508 released for Luzon performed well in Mindanao; the 600-series varieties released for direct wet-seeded yielded high across locations even when transplanted. The saline-tolerant varieties Rc 534 and Rc 604 also performed well in irrigated areas, with Rc 534 maturing in only 115 days or 16 days earlier than expected. These data will help convince farmers to replace their old or preferred varieties with these new varieties.

Public hybrids M1, M20, and M99 gained traction among farmers in project sites because of TDLFs, which showcased them alongside private hybrids. M20 and M99 respectively averaged 7.79 and 7.26t/ha at a lower cost, competing well with their private counterparts. Selected for planting during Participatory Variety Selection (PVS) in various sites, these public hybrids garnered significant farmer interest, signaling the need for accessible seed availability.

Through 30 batches of Lakbay Palay and Farmers' Field Walks (FFWs) at TDLF sites, over 6,000 farmers were exposed to various components of the PalayCheck System, including proper land preparation, fertilizer management, pest control, and timely harvesting. This enhanced their understanding of scientific rice production, toward improving their farming methods and increasing yields and incomes. Farmer-cooperators in off-station TDLFs attained yield and income increases through the adoption of recommended practices and technologies. These field events facilitated farmer interaction, collaboration, and knowledge-sharing.

Through PVS, farmers identified preferred varieties suited to their areas, with many opting for newly released ones over older varieties. Top choices included Rc 506, Rc 512, and M20 for DS, and Rc 626, Rc 604, and Rc 630 for WS, alongside other 500- and 600-series varieties in selected TDLF sites. Results aligned with the Next Gen Project, leading to their inclusion in regional recommendations of the RCEF-Seed program and distribution to farmers.

TDLFs at PhilRice Central Experiment Station (CES) doubled as learning fields

for training programs conducted by TMSD, including Rice Specialists' Training, short courses for farmers, and training of trainers on high-quality seeds (HQS) and pest and nutrient management (PNM), and other knowledge sharing and learning (KSL) activities. These fields facilitated agro-ecosystem analysis, honing critical thinking and decision-making skills in pest management. Observation of biotic and abiotic factors impacting rice crops improved participants' pest management abilities. There were 932 (552 men and 380 women) participants, including farmer-leaders, technicians, and ATI & LGU staffers, who enhanced their outlook and skills through hands-on activities.

Apart from showcasing variety performance and assessing adaptability, HQS of these varieties were produced through the informal seed system. On-station HQS production served as seed sources for future techno-demos and for distribution to farmers, saving project funds. Some stations submitted HQS for certification and sold them, generating additional income. At CES, HQS were used for on-station and off-station TDLFs, eliminating the need to purchase seeds. There were 258,088kg of HQSs produced, with 84,212kg from on-station TDLFs and 173,876kg from off-station.

