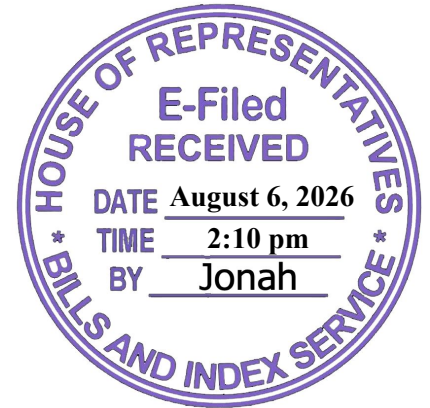


Republic of the Philippines
HOUSE OF REPRESENTATIVES
Constitution Hills, Quezon City

TWENTIETH CONGRESS
Second Regular Session

HOUSE BILL NO. 10666



Introduced by 2nd District of Iloilo Representative
HON. KATHRYN JOYCE F. GORRICETA, M.D.

AN ACT
ESTABLISHING PROVINCIAL SOIL LABORATORY FACILITIES IN ALL PROVINCES, ENHANCING SOIL HEALTH MANAGEMENT AND AGRICULTURAL PRODUCTIVITY, AND APPROPRIATING FUNDS THEREFOR

EXPLANATORY NOTE

Agricultural productivity and long-term food security in the Philippines depend heavily on the proper management of soil resources. However, soil degradation, inefficient fertilizer use, and the absence of accessible, science-based soil diagnostics continue to constrain farm productivity and increase production costs.

Data from the Department of Agriculture indicate that fertilizer use efficiency in many areas remains low, with only 30% to 50% of applied nutrients effectively utilized by crops, while the rest is lost to the environment. The Food and Agriculture Organization identifies poor nutrient management as a major contributor to declining soil fertility and stagnating yields in developing countries.

At present, many Filipino farmers rely on generalized fertilizer recommendations and basic Soil Test Kits (STK), which fail to capture site-specific soil conditions. The limited availability of comprehensive soil laboratory services—especially in rural and geographically isolated areas—prevents farmers from adopting science-based nutrient management practices. As a result, inefficient “blanket” fertilizer application persists, leading to input wastage, lower yields, and long-term soil degradation.

This bill addresses these gaps by establishing *Provincial Soil Laboratory Facilities* nationwide under the Department of Agriculture, through the Bureau of Soils and Water Management. These facilities will provide accessible and comprehensive soil testing, advanced analysis, and technical advisory services to farmers and local government units.

Unlike conventional soil test kits, these laboratories will support advanced diagnostics, enabling farmers to make informed, site-specific decisions. The measure also institutionalizes a Site-Specific Nutrient Management (SSNM) framework, ensuring that fertilizer use is guided by laboratory data and local field conditions. Studies supported by the International Rice Research Institute show that SSNM can increase yields by 5% to 20% while reducing fertilizer use by up to 20%, demonstrating improved efficiency and productivity.

International experience reinforces the value of soil testing systems. In India, the Soil Health Card Program has reached over 220 million farmers, which improved fertilizer efficiency and reducing input costs. China and Vietnam have similarly achieved higher yields and better nutrient use efficiency through large-scale soil testing and site-specific nutrient management programs. The FAO further estimates that improved soil management can increase crop productivity by up to 58% in degraded lands.

By promoting science-based fertilizer optimization, this measure aims to reduce input waste, lower costs, improve yields, and minimize environmental impacts. It will strengthen soil health monitoring, support data-driven agricultural planning, and enhance climate-resilient and sustainable farming systems.

This proposed legislation empowers Filipino farmers with the knowledge and tools needed to increase productivity while preserving soil resources for future generations. In doing so, it advances the State's commitment to food security, rural development, and sustainable agriculture.

In view of the foregoing, the immediate passage of this measure is earnestly sought.


KATHRYN JOYCE F. GORRICETA, M.D.
Representative
2nd District of Iloilo

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Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

SECTION 1. *Short Title.* This Act shall be known as the “*Provincial Soil Laboratory Development Act.*”

SEC. 2. *Declaration of Policy.* It is hereby declared the policy of the State to accelerate agricultural development by optimizing the sustainable use and management of soil resources, with the goal of attaining food security through science-based, efficient, and climate-resilient agricultural practices.

Towards this end, the State shall ensure that farmers are provided with accessible, reliable, and timely soil testing services to guide efficient fertilizer use, improve soil fertility, enhance agricultural productivity, and promote environmentally sustainable farming systems.

SEC. 3. *Establishment of Provincial Soil Laboratory Facilities.* There shall be established at least one (1) Provincial Soil Laboratory Facility in every province of the Philippines to provide soil testing, analysis, and technical advisory services to farmers, agricultural stakeholders, and local government units.

These facilities shall serve as the primary centers for soil diagnostics and nutrient management support within their respective jurisdictions.

SEC. 4. *Implementing Agency.* The Department of Agriculture (DA), through the Bureau of Soils and Water Management (BSWM), shall serve as the lead implementing agency and shall:

- a) Establish, operate, and supervise provincial soil laboratories;
- b) Develop and enforce uniform soil testing standards, methodologies, and protocols;
- c) Provide technical assistance and capacity-building support to provincial governments;
- d) Maintain quality assurance systems and ensure laboratory accreditation in accordance with national and international standards;

- e) Establish partnerships with state universities and colleges, research institutions, and other relevant entities; and
- f) Develop and maintain a nationwide soil health monitoring and information system.

SEC. 5. *Functions of Provincial Soil Laboratories.* Each Provincial Soil Laboratory shall:

- a) Conduct soil fertility evaluation and nutrient analysis;
- b) Provide crop-specific fertilizer and soil amendment recommendations;
- c) Support the adoption of sustainable and climate-resilient agricultural practices;
- d) Assist in soil mapping and land suitability assessment;
- e) Provide training, extension services, and technical support to farmers, agricultural technicians, and local government personnel; and
- f) Generate, manage, and disseminate soil data for agricultural planning, research, and policy development.

SEC. 6. *Comprehensive Soil Testing and Advanced Analysis.* In addition to standard soil testing services, Provincial Soil Laboratory Facilities established under this Act shall be equipped and authorized to conduct comprehensive and advanced soil analyses beyond the capabilities of conventional Soil Test Kits (STK). Such testing shall include, but shall not be limited to:

- a) Macro and micronutrient analysis, including nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, zinc, iron, manganese, copper, and boron;
- b) Soil organic matter and carbon content determination;
- c) Soil texture, structure, and water-holding capacity analysis;
- d) Salinity, sodicity, and cation exchange capacity assessment;
- e) Contaminant and heavy metal testing, when necessary;
- f) Soil biological and microbial activity assessment, where applicable; and
- g) Crop- and site-specific nutrient management recommendations based on laboratory results.

The Department of Agriculture, through the Bureau of Soils and Water Management, shall ensure that provincial laboratories are provided with appropriate equipment, technical standards, and adequately trained personnel to enable comprehensive and science-based soil evaluation. Results generated from such analyses shall serve as the basis for precision agriculture initiatives, fertilizer optimization programs, and sustainable land management policies.

SEC. 7. *Site-Specific Nutrient Management and Fertilizer Optimization.* The Department of Agriculture, through the Bureau of Soils and Water Management, shall adopt and implement a Site-Specific Nutrient Management (SSNM) Framework utilizing data generated from Provincial Soil Laboratory Facilities. Accordingly:

- a. Fertilizer recommendations issued to farmers shall, as far as practicable, be based on laboratory-generated soil analysis and localized field conditions rather than uniform or blanket fertilizer application rates;
- b. Provincial Soil Laboratories shall generate crop-specific and location-specific nutrient management advisories;
- c. The DA shall integrate soil laboratory results into existing agricultural support programs, including fertilizer assistance and extension services;
- d. Agricultural extension workers and LGU personnel shall be trained to interpret laboratory results; and

- e. The DA shall promote reduced input waste, improved soil health, increased farm productivity, and minimized environmental impact.

SEC. 8. *Accessibility and Farmer Support.* Soil testing services shall be made affordable and accessible, with subsidized rates prioritized for smallholder farmers, agrarian reform beneficiaries, agricultural cooperatives, and farmers in geographically isolated and disadvantaged areas.

Mobile soil testing services shall consider deployment to remote municipalities and island provinces.

SEC. 9. *Personnel and Staffing.* The Department of Agriculture, in coordination with provincial governments, shall ensure the hiring, training, and continuous capacity development of soil scientists, laboratory technicians, and support personnel necessary for the effective operation of Provincial Soil Laboratories.

SEC. 10. *Appropriations.* The amount necessary for the initial implementation of this Act shall be charged against the current appropriations of the Department of Agriculture. Thereafter, such sums as may be necessary shall be included in the annual General Appropriations Act.

SEC. 11. *Implementing Rules and Regulations.* Within ninety (90) days from the effectivity of this Act, the Department of Agriculture, in consultation with concerned agencies and stakeholders, shall promulgate the necessary implementing rules and regulations.

SEC. 12. *Separability Clause.* If, for any reason, any part or provision of this Act is declared unconstitutional or invalid, the remaining provisions not affected shall remain in full force and effect.

SEC. 13. *Repealing Clause.* All laws, presidential decrees, executive orders, rules and regulations inconsistent with the provisions of this Act are hereby repealed, amended, or modified accordingly.

SEC. 14. *Effectivity.* This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in a newspaper of general circulation.

Approved,