

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Metro Manila

TWENTIETH CONGRESS

First Regular Session

House Bill No. 3172



Introduced by Representative

BRIAN DANIEL POE LLAMANZARES, PhD, MNSA

**AN ACT PROMOTING THE USE OF AEROPONICS, HYDROPONICS AND
AQUAPONICS FOR THE PRODUCTION OF HIGH VALUE FISH, CROPS AND
VEGETABLES, AND FOR OTHER PURPOSES**

EXPLANATORY NOTE

The Philippines is facing an urgent need to address the challenges of food security in the face of a rapidly increasing population and the persistent threats of climate change. With the country's growing reliance on the importation of crops, vegetables, and fish, it is imperative to find innovative solutions that can sustainably increase domestic agricultural production and ensure a stable food supply. The traditional methods of farming are often resource-intensive and vulnerable to environmental fluctuations, highlighting the need for a shift towards more advanced and resilient agricultural practices.

This bill, to be known as the "**Soilless Agricultural Production Act**," is a direct response to these pressing concerns. It proposes to actively promote the use of advanced agricultural technologies—specifically **aeroponics, hydroponics, and aquaponics**—as a means of boosting the production of high-value fish, crops, and vegetables. These soilless farming methods offer a sustainable way to grow more food while conserving limited natural resources, as they require less water and land compared to conventional farming.

To ensure the successful implementation of this measure, the bill mandates a multi-faceted approach:

1. **Technological Adoption:** The Department of Agriculture (DA) will be tasked with promoting the use of these technologies, utilizing idle government lands and available resources in state universities and colleges for their application.
2. **Research and Development:** The DA is required to conduct comprehensive research and support activities aimed at expanding knowledge and developing these technologies to suit local conditions.
3. **Educational Integration:** To build a skilled workforce and foster future innovation, the bill mandates that aeroponics, hydroponics, and aquaponics technologies be integrated into the academic curriculum for agriculture-related courses in both public and private schools.

By embracing these modern, cost-effective, and environmentally safe technologies, this bill seeks to advance agricultural development, increase food production, and ultimately secure the country's food supply for generations to come. The approval of this measure is therefore earnestly sought as a crucial step towards a food-secure and resilient Philippines.



HON. BRIAN DANIEL POE LLAMANZARES, PhD, MNSA

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FPJ Panday Bayanihan Party-List

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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 "Soilless Agricultural Production Act."

Sec. 2. Declaration of Policy. – It is hereby declared to be the policy of the State to reaffirm the fundamental right of every person to food security. The attainment of self-sufficiency in the field of food production is therefore adopted as a primary State policy. For this purpose, key reforms for the advancement of, and support to agricultural advancement in technology adaptation are hereby promoted in order to ensure the food security of the country. Furthermore, the State commits itself to the adoption of state-of-the-art technologies and the active development of modern, appropriate and cost-effective, and environmentally safe agricultural technology in order to ensure and provide food security and safety.

Sec. 3. Definition of Terms. – For purposes of this Act, the following terms shall mean or be understood as follows:

- (a) **"Aeroponics"** shall refer to the process of growing vegetation in an air or mist environment without the use of soil or an aggregate medium. Aeroponic growing is considered to be safe and ecologically friendly for producing natural and healthy plants and crop.
- (b) **"Hydroponics"** shall refer to the method of growing plants in a water-based, nutrient-rich solution. The basic premise behind hydroponics is to allow the plant roots to come in direct contact with the nutrient solution, while also having access to oxygen, which is essential for proper growth.
- (c) **"Aquaponics"** shall refer to the integration of aquaculture and hydroponic plant production in a closed-loop water system that simultaneously grows both plants and fish. In a symbiotic relationship, the waste that is produced by fish in water tanks is used directly or converted by bacteria into useful nutrients for plants.

Sec. 4. Use of Aeroponics, Hydroponics, and Aquaponics Technologies. – The Department of Agriculture (DA) is hereby mandated to promote the use of aeroponics, hydroponics, and aquaponics technologies as instruments to further improve the production of high value fish, crops and vegetables in the country and address food security concerns. Idle government lands owned by either national or local governments or available land resources in state universities and colleges shall be considered for fish fanning and growing crops and vegetables using these technologies, whichever is applicable.

Sec. 5. Comprehensive Research on Aeroponics, Hydroponics, and Aquaponics Technologies Applied in Agricultural Production. – For purposes of this Act, the Secretary of the DA is hereby mandated to conduct a comprehensive research and information drive on these technologies applied in agricultural production. The DA is further enjoined to support research activities aimed at expanding the knowledge and understanding of these technologies and to invest in advance technology research to promote agricultural production of high value fish, crops and vegetables.

Sec. 6. Inclusion of Aeroponics, Hydroponics and Aquaponics Technologies in Agricultural Training. – These technologies, as used in agricultural production, shall be integrated into the academic curriculum for secondary and tertiary level students of both public and private academic institutions who are studying courses on Agriculture, Practical Arts, Home Economics and/or other subjects related to agriculture. The Department of Education (DepEd), in coordination with the Commission on Higher Education (CHED), shall promulgate the necessary rules and regulations for the implementation of this section within ninety (90) days from the date of effectivity hereof.

Sec. 7. Implementing Rules and Regulations (IRR). – Within ninety (90) days from the effectivity of this Act, the DA, in consultation with the Department of Science and Technology

(DOST), shall promulgate the necessary implementing rules and regulations to implement the provisions of this Act.

Sec. 8. Repealing Clause. – All laws, decrees, orders, rules and regulations or other issuances or parts thereof inconsistent with the provisions of this Act are hereby repealed or modified accordingly.

Sec. 9. Appropriation. – The amount necessary to carry out the provisions of this Act shall be included and incorporated in the annual general appropriations of the DA, DepEd, and Commission on Higher Education (CHED).

Sec. 10. Separability Clause. – If any portion or provision of this Act is declared unconstitutional, the remainder of this Act or any provision not affected thereby shall remain in force and effect.

Sec. 11. Effectivity Clause. – This Act shall take effect after fifteen (15) days following the completion of its publication either in the Official Gazette or in a newspaper of general circulation in the Philippines.

Approved,


HON. BRIAN DANIEL POE LLAMANZARES, PhD, MNSA
Representative
FPJ Panday Bayanihan Party-List