

FIFTEENTH CONGRESS OF THE )  
REPUBLIC OF THE PHILIPPINES )  
First Regular Session )

SENATE  
OFFICE OF THE CLERK

JUL 12 4 48 -0

SENATE  
S.B. 1105

RECEIVED 9-11-00

---

Introduced by Senator Manny Villar

---

### EXPLANATORY NOTE

Did you ever imagine that plants can be cultivated in a soil-less environment? Or that crops can be grown with their roots hanging in the air?

The answer is yes. And it is through a technology called hydroponics agriculture. In recent years, growing plants through hydroponics---that is, with the roots in a medium other than soil---has stirred the imagination of many persons engaged in planting and agriculture.

Derived from the Greek words "hydro" meaning water and "ponos" meaning labour, hydroponics agriculture promote the scarce use of land resources. It reduces pest problems and yields more productivity. In areas where soil is lacking or unsuitable for growth, hydroponics offers an alternative production system. For plant hobbyists and for those who want to pursue urban agriculture, it can be utilized considering limited space and energy required.

In the United States, it has been proven that it enhances lush vegetation resulting in fresh produce with more nutritional value. In the Philippines, while it has not been adapted fully, pioneering efforts in Tagaytay City and in Subic have been commenced with positive indications. In fact, in an agricultural update, it has been noted that a one hundred square meter hydroponics farm may yield a half a million yield of vegetables and food farm products.

Considering that food security is a perennial concern affecting citizens and believing that hydroponics is a suitable technology in the context of Philippine agriculture, the early recognition of this legislation is earnestly sought.

  
MANNY VILLAR

FIFTEENTH CONGRESS OF THE )  
REPUBLIC OF THE PHILIPPINES )  
First Regular Session )

OFFICE OF THE CLERK

JUL 12 AM 20

SENATE

S.B. 1105

RECEIVED BY

---

Introduced by Senator Manny Villar

---

**AN ACT**  
**PROMOTING HYDROPONICS AGRICULTURE AS AN INSTRUMENT TO**  
**SOLVE PROBLEMS OF FOOD SECURITY AND AS A MECHANISM OF WISE**  
**USE OF SCARCE LAND RESOURCES**

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

**SECTION 1.** Hydroponics agriculture is hereby promoted as a mechanism to solve food security and the modernization of agriculture.

As used in this Act, hydroponics agriculture is a method of growing plants using mineral nutrient solutions instead of soil. It is a form of soil-less culture, where crops are cultivated with no solid medium for the roots.

**SEC. 2.** The Department of Agriculture shall ensure the proper and adequate information dissemination of the basic information, benefits and best use of the hydroponics agriculture technology to the general public.

Idle government lands owned by either national or local governments or available land resources in state universities and colleges shall be considered for growing plants and vegetation using hydroponics agriculture.

Information on the following areas of hydroponics agriculture technology may be included in its public campaign and popularization:

- a. hydroponics system;
- b. water culture, aquaculture and nutriculture which are systems in which the plant roots are immersed in water containing dissolved nutrients;
- c. aggregate culture in which a material sand, gravel and marbles supports the plant roots;
- d. aeroponics in which the plant roots hang in the air and are misted regularly with a nutrient solution;
- e. benefits and practical utilization of hydroponics.

**SEC. 3.** Hydroponics agriculture shall be integrated in such academic requirements as Farming, Practical Arts, Home Economics or appropriate subject in elementary and secondary education of both public and private academic institutions.

**SEC. 4.** This Act shall take effect fifteen (15) days after its complete publication in two (2) newspapers of general circulation.

Approved,