

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE AND FARMERS WELFARE
DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION

RAJYA SABHA
UNSTARRED QUESTION NO. 506
TO BE ANSWERED ON 14/12/2018

**PROMOTION OF AQUAPONIC, HYDROPONIC AND AEROPONIC
TECHNOLOGY IN AGRICULTURE**

506. **SHRI SAMBHAJI CHHATRAPATI:**

Will the Minister of AGRICULTURE AND FARMERS WELFARE be pleased to state:

- (a) whether attention of Government has been drawn towards benefits of aquaponics, hydroponics and aeroponics technology in the field of agriculture;
- (b) if so, the details thereof; and
- (c) the nature of promotion Government proposes to undertake to encourage farmers to get far better yield without much investment to support the growing population of the country which may require 60 per cent import of food by 2050?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE AND FARMERS WELFARE
(SHRI GAJENDRA SINGH SHEKHAWAT)

(a) & (b): Yes Sir, Government of India is aware of the potential of hydroponics, aeroponics and aquaponics as the potential future technologies to mitigate the effects of climate change on food production and to bridge the gap in food production in future. The DARE/ ICAR is focusing on technology development for growing crops especially vegetables, flowers and fodder for livestock using these techniques. Indian Council of Agricultural Research (ICAR) has developed and refined the aeroponics technique for producing disease-free potato seeds and is popularizing the technology among the farmers and other stake-holders. ICAR Institutes have also developed technologies for integrating fish and plant cultivation using aquaponics. These techniques are being popularised by the Government in Kerala as family aquaponics system, family hydroponics system and integrated family farming units of duck/hen-fish and vegetable cultivation. Subsidy on electricity to these systems is also being extended. Hydroponics through media culture has been experimented for its suitability for growing crops like tomato, cucumber, capsicum, French beans, green chilli, Zucchini and strawberry besides leafy vegetables like lettuce. This technique also has shown potential for the production of quality green fodder for dairy animals for use in areas of scarcity.

(c) The Government is promoting these techniques as agri- startups as it involves investment. Simultaneously, Research and Development efforts are underway for developing and promoting low cost technology solutions for family hydroponics and aquaponics systems and integrated family farming units integrating various horticultural crops with fish and poultry. Aeroponics technique is also being refined for commercial production of disease free potato seed to satisfy future requirements.
