

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

**LOK SABHA**  
**STARRED QUESTION NO. 137**  
TO BE ANSWERED ON 12/02/2019

**USE OF CHEMICAL FERTILIZERS**

**\*137. SHRI LAXMAN GILUWA:**

Will the Minister of AGRICULTURE & FARMERS WELFARE  
कृषि और किसान कल्याण मंत्री be pleased to state:

- (a) whether the Government has carried out any research to ascertain the extent to which the excessive use of chemical fertilizers destroys soil fertility and causes various types of diseases and other problems;
- (b) if so, the details thereof including the level to which the quality of soil has reduced due to imbalanced use of fertilizer every year, State-wise;
- (c) the follow-up action taken by the Government on the findings of the said research;
- (d) whether the Government has launched any programme/ campaign to create awareness amongst the farmers regarding the effects of imbalanced use of fertilizers and the need to use conventional and harmless fertilizers or the benefits of organic farming and if so, the details thereof; and
- (e) the steps taken to check the imbalanced use of fertilizers along with the outcome thereof and the details of the progress report after taking these steps?

**ANSWER**

THE MINISTER OF AGRICULTURE AND FARMERS WELFARE  
कृषि और किसान कल्याण मंत्री **(SHRI RADHA MOHAN SINGH)**

**(a) to (e):** A Statement is laid on the Table of the House.

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**STATEMENT IN RESPECT OF PARTS (a) to (e) OF LOK SABHA STARRED  
QUESTION NO. 137 TO BE ANSWERED ON 12/02/2019 REGARDING  
“USE OF CHEMICAL FERTILIZERS”**

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**(a) & (b):** Yes Madam. The study conducted by Indian Council of Agricultural Research (ICAR) under All India Coordinated Research Project on ‘Long-Term Fertilizer Experiments’ in different centres located in several States on various soil types (fixed locations) under dominant cropping systems revealed that imbalanced use of fertilizer over the years may cause multi-nutrient deficiencies in soil affecting soil health and crop productivity. Even in plots receiving only NPK fertilizers, the deficiency of micro and secondary nutrients is observed. The limiting nutrients do not allow the full expression of other nutrients, thereby, lowering the fertilizer responses and crop productivity. Highest decline in crop yield was observed in plots receiving only nitrogen.

Besides, there is also possibility of nitrate contamination in groundwater above the permissible limit of 10 mg NO<sub>3</sub>-N /L due to excessive use of nitrogenous fertilizers particularly in light textured soils that has consequence on human/animal health if used for drinking purpose.

**(c) to (e):** The ICAR has recommended soil test based balanced and Integrated Nutrient Management (INM) through conjunctive use of both inorganic and organic sources (manure, biofertilizers etc.) of plant nutrients to prevent/reduce excessive use of chemical fertilizers. In addition, split application and placement of fertilizers, use of slow releasing N-fertilizers and nitrification inhibitors, growing leguminous crops and use of Resource Conservation Technologies (RCTs) are also advocated. The ICAR also imparts training, organizes front-line demonstrations etc. to educate farmers on all these aspects.

The Government under the component of soil health management of National Mission for Sustainable Agriculture (NMSA) is promoting soil test based balanced and integrated nutrient management in the country through judicious use of chemical fertilizers including secondary and micro nutrients in conjunction with organic manures and bio-fertilizers for improving soil health and its productivity; up-gradation of skill and

knowledge of soil testing laboratory staff, extension staff and farmers through training and demonstrations. Recently, a National Mission on Soil Health Card has been launched to provide soil test based fertilizer recommendations to all the farmers in the country.

The Government through soil health management component of National Mission for Sustainable Agriculture (NMSA) and National Mission on Soil Health Card is creating awareness amongst the farmers regarding the effects of imbalanced use of fertilizers including need to use conventional and harmless fertilizers. Similarly, farmers are being educated regarding benefits of organic farming through *Parampragat Krishi Vikas Yojana* (PKVY). and *Mission Organic Value Chain Development for North Eastern Region* (MOVCDNER) under NMSA.

The Government under National Mission on Soil Health Card Scheme is assisting States/UTs to evaluate soil fertility of every farm holdings across the country so as to enable them to apply appropriate dosages of fertilizers. The Government has set a target to provide soil health cards to all the farmers in the country every 2 years. In the 1st Cycle (2015-16 & 2016-17), 10.74 crore soil health cards were distributed to farmers and in the 2nd Cycle (2017-18 & 2018-19), 8.13 crore soil health cards have been distributed by State Governments/Union Territories to farmers as on 05.02.2019. 10825 soil testing laboratories of various types have been created / strengthened for the purpose.

The Government is also implementing Nutrient Based Subsidy Scheme since 2010 and promoting customized and fortified fertilizers for balanced use of fertilizers.

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