

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

RAJYA SABHA
UNSTARRED QUESTION NO-501
ANSWERED ON- 26/07/2024

SPAD METER TO CHECK NITROGEN STATUS

501. SHRI MUKUL BALKRISHNA WASNIK:

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

- (a) whether it is a fact that Indian Council of Agricultural Research (ICAR) along with Central Institute of Agricultural Engineering (CIAE), Bhopal has developed Soil Plant Analysis Development (SPAD) meter for checking nitrogen status in agricultural land;
- (b) if so, the details about the equipment; and
- (c) the manner in which Government plans to make this equipment easily available to small and marginal farmers at affordable prices?

ANSWER

THE MINISTER OF AGRICULTURE & FARMERS WELFARE
(SHRI SHIVRAJ SINGH CHOUHAN)

- (a): Yes, it is a hand-held device and used as a quick diagnostic tool to estimate nitrogen status of the plant.
- (b): The SPAD meter 2.0 measures leaf chlorophyll concentration non-destructively, optimizing fertilizer timing for enhanced crop yields. It assesses Relative Chlorophyll as a plant health indicator, using optical density at two wavelengths, applicable to various crops. SPAD values guide nitrogen fertilizer recommendations, and real-time data display and recording aid precision agriculture. The readings of SPAD 2.0 can be stored in cloud server using IoT protocol which is not available in existing technology.
- (c): The equipment has been recently licensed to the following three firms for production and making available to the farmers, KVKs and research organizations:
1. M/s. GT Bio Science Pvt Ltd
 2. M/s. SKR AGROTECH
 3. M/s. WS Telematics Private Limited
