

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

LOK SABHA

UNSTARRED QUESTION NO. 1992

TO BE ANSWERED ON WEDNESDAY, FEBRUARY 11, 2026

CROPS-EXPERIMENTS

1992. SHRI PRATAP CHANDRA SARANGI:

DR. VINOD KUMAR BIND:

SHRI RAJKUMAR CHAHAR:

Will the PRIME MINISTER be pleased to state:

- (a) whether the CROPS (Compact Research Module for Orbital Plant Studies) experiments has been conducted to study plant growth and biological processes under micro-gravity conditions;**
- (b) if so, the scientific objectives of the said experiments and the key parameters being studied thereunder;**
- (c) the details of the crops or biological samples selected for the study; and**
- (d) the details of the institutions involved in the design and implementation of the said experiments?**

ANSWER

**MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC
GRIEVANCES & PENSIONS AND IN THE PRIME MINISTER'S OFFICE**

(DR. JITENDRA SINGH):

- (a) Yes. A technology demonstration payload called as Compact Research Module for Orbital Plant Studies (CROPS) as part of PSLV Orbital Experimental Module (POEM-4), in the PSLV-C60 mission was launched on December 30, 2024, to study plant growth and biological processes under micro-gravity conditions, wherein germination of seeds was achieved under microgravity conditions.**
- (b) The main objective of the CROPS payload was to demonstrate germination of a seed and growth of plant up to two leaves stage in space for 5 to 7 days. The key parameters studied are concentration levels of oxygen & carbon dioxide, pressure, temperature, relative humidity, and soil moisture.**
- (c) Cowpea seeds were selected for the study.**
- (d) CROPS payload was primarily designed, and implemented by the Vikram Sarabhai Space Centre (VSSC) of ISRO in Thiruvananthapuram.**
