



**A Brief Report on Value-Added Course on**  
**“INTRODUCTION TO HYDROPONICS GARDENING”**

**Course Code:** AGV-03-2526

**Duration:** 23<sup>rd</sup> February 2026 to 9<sup>th</sup> March 2026

**Organized by:** Department of Agriculture,  
Integral Institute of Agricultural Science and Technology (IIAST),  
Integral University, Lucknow

Hydroponics is an advanced and innovative soilless cultivation technique in which plants are grown using nutrient-rich water solutions, with or without inert growing media such as cocopeat, perlite, vermiculite, or rockwool. This method enables precise control over plant nutrition, water usage, and environmental conditions, leading to faster growth, higher productivity, and year-round cultivation. In the present era of shrinking agricultural land, water scarcity, and climate variability, hydroponics has emerged as a sustainable alternative to conventional farming. It plays a significant role in protected cultivation, vertical farming, and urban agriculture, ensuring efficient resource utilization and production of safe, pesticide-minimized food. Recognizing the growing importance of hydroponics, the Department of Agriculture, IIAST organized a comprehensive value-added course titled “Introduction to Hydroponics Gardening”. The course aimed to equip students with both theoretical knowledge and practical skills related to hydroponic systems and their applications.

This value-added course conducted from 23<sup>rd</sup> February 2026 to 9<sup>th</sup> March 2026, spanned over 30 hours and was meticulously designed and delivered by experienced faculty members and experts. This initiative reflects the strong commitment of the Department of Agriculture, IIAST, to equip students with relevant knowledge and practical skills aligned with emerging trends and opportunities in modern soilless cultivation techniques. The course was open to UG, PG, and Ph.D. students from all disciplines across the university, ensuring wide academic participation and interdisciplinary learning. A total of 177 students registered, out of which 142 students successfully completed the course based on their performance in quizzes and attendance criteria. The programme was conducted in virtual mode, with lectures scheduled daily from 4:30 PM to 6:30 PM (excluding quiz sessions), ensuring a structured and engaging learning environment for all participants. The value-added course was conducted under the guidance of Prof. Saba Siddiqui, Head, Department of Agriculture (IIAST), Integral University, with overall supervision by Prof. Mohd Haris Siddiqui, Director, IIAST, who served as the Convener. The programme was coordinated and effectively managed by Dr. S.R. Singh (Principal Scientist, ICAR–CISH, Lucknow), Er. Asfaq, and Dr. Sanket Kumar, who also contributed as instructors for various modules of the course.

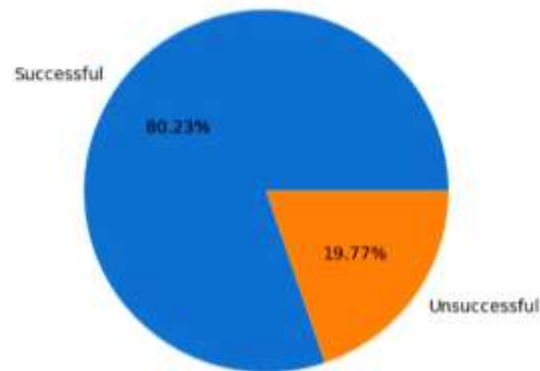
The Course modules were addressed by the following resource persons:

S. No.	Date		Course Instructor	Outcomes
	From	To		
1	23.02.2026	25.02.2026	Dr. Sanket Kumar	Basic understanding of hydroponics and plant growth principles.
2	26.02.2026	28.02.2026	Dr. S.R. Singh	Practical understanding of system installation and operation.
3	01.03.2026	03.03.2026	Er. Asfaq	Skills in different hydroponic technologies and management practices.
4	04.03.2026	06.03.2026	Dr. Sanket Kumar	Skills in crop production

### Student Participation and Performance

Particulars	Number of Students	Percentage (%)
Total Registered Students	177	
Successful Candidates	142	80.23%
Unsuccessful Candidates	35	19.77%

Student Performance Distribution (Pie Chart)



All participants who successfully completed the course were awarded e-certificates based on their performance in quizzes, unit-wise assessments, attendance, and overall participation, with a minimum qualifying criterion of 50%. The value-added course on “Introduction to Hydroponics Gardening” provided participants with comprehensive knowledge and practical insights into modern soilless cultivation techniques, emphasizing its significance in enhancing agricultural productivity, resource-use efficiency, economic viability, and environmental sustainability.

### Glimpse of VAC course

