21 Days Scientific Refresher Course on 'Innovation in Agriculture, Horticulture for Climate Resilience, Nutritional Security and Inclusive Rural Growth (Virtual Mode)

Date: June 15-July 06, 2026

Organized By:

Samagra Vikas Welfare Society (SVWS)

Narayan Institute of Agricultural Sciences, Gopal Narayan Singh University, Jamuhar, Sasaram, Rohtas, Bihar

ISBN
978-93-5915-794-8

Editor: Jyoti Swaroop and K K Mishra

Background: A 21-days refresher course on "Innovation in Agriculture, Horticulture for Climate Resilience, Nutritional Security and Inclusive Rural Growth"establishes a comprehensive foundation by addressing the intersection of climate change, nutritional deficits, and economic stagnation in rural areas. The curriculum should emphasize capacity building, moving beyond traditional methods toward integrated farming and modern agri-entrepreneurship to empower farming communities. Focuses on shifting weather patterns, water-use efficiency, and crop adaptability. Topics include stress-tolerant varieties, rainwater harvesting, soil health management, and climate-smart agronomic practices. Addresses the need for diverse, nutrient-rich diets. Integrates horticulture, biofortified crops, homestead gardens, and organic/bio-based food systems. Emphasizes socioeconomic development for small and marginal farmers. Focuses on value addition, Farmer Producer Organizations (FPOs), supply chain management, and creating agri-startups. Highlights digital extension services, precision farming tools, and AI-driven agricultural advisories. The event will provide an opportunity to scientists, experts, students and different farming stakeholders groups for updating the innovative knowledge.

Issues to be addressed

A 21-day refresher course curriculum on this theme focuses on up skilling agricultural professionals to tackle agrarian distress. The training addresses technology-driven yield enhancements, climate-resilient horticulture, and sustainable supply chains.

Techniques to mitigate crop damage from extreme temperatures, erratic rainfall, and drought through stress-tolerant varieties.Innovations like precision irrigation, rainwater harvesting, micro-irrigation, and regenerative farming to improve organic carbon and soil moisture retention.

Shifting from chemical-intensive farming to natural farming frame works to reduce carbon footprints and input costs.Transforming rural youth and farmers into agri-preneurs through specialized business innovation and agro-tourism training modules.

S.No.	Title of Lectures/Theme 02 Lectures/Day	No. of Lectures
01	Climate-Smart Agriculture: Strategies for adaptation, mitigation, and carbon sequestration.	01
02	Stress-Tolerant Varieties: Developing and deploying crops resistant to drought, salinity, and extreme temperatures.	01
03	Precision Agriculture & Digital Technologies: Applications of AI, IoT, and remote sensing for real-time crop monitoring and data-driven decision making.	01
04	Soil Health & Regenerative Agriculture: Microbial interventions and organic carbon enhancement.	01
05	Water Management: Innovations in micro-irrigation and water-use efficiency in rainfed area.	01

06	Biofortification and Crop Diversification: Overcoming hidden hunger by scaling nutrient-dense and climate-resilient indigenous crops.	01
07	Protected Cultivation: Hydroponics, aeroponics, and polyhouse farming for year-round yield.	01
08	Post-Harvest Management & Value Addition: Innovations in food storage, solar drying, and processing to prevent post-harvest losses and retain nutritional value.	01
09	High-Density Orcharding & Canopy Management: Modern practices for enhancing fruit orchard productivity.	01
10	Diversified Vegetable Production: Ensuring continuous nutritional availability through diverse crop integration.	01
11	The Current State of Food Security: India's challenges in combating hidden hunger and malnutrition.	01
12	Nutritional Yield Metrics: Valuing crops based on nutrient output per hectare rather than bulk tonnage.	01
13	Millets and Underutilized Crops: Reviving Traditional Nutri-Cereals.	01
14	Nutritional Kitchen Gardens: Strategies for decentralized, diverse horticultural production to combat local nutritional deficiencies	01
15	Bio-inputs and Regenerative Agriculture: Scaling microbial inoculants, biochar, and bio-fertilizers to improve soil health and reduce chemical dependency.	01
16	Renewable Energy Applications in Farming: Deploying solar-powered micro-irrigation systems and smart mechanized tools to reduce the agricultural carbon footprint.	01
17	Organic and Natural Farming Practices	01
18	Floriculture, Cultivation and Economics.	01
19	Medicinal, and Aromatic Plants: Cultivation and Economics.	01
20	Production, Processing, Quality Testing, certification & Legislation of Grain Seeds.	01
21	Production, Processing, Quality Testing, certification & Legislation of Vegetable Seeds.	01
22	Production, Quality Testing, certification & Legislation of Saplings.	01
23	Methodologies and digital platforms, modern techniques for technology trnsfer from lab to land.	01
24	Nutrient Cycling, soil structure, nitrogen fixation and bio control in soil.	01

25	Market-Led Extension & Farmer Producer Organizations (FPOs): Empowering rural communities through collective action, e-NAM linkages, and shortened supply chains.	01
26	Women's Empowerment in Agriculture: Designing women-friendly farm tools and improving access to credit, land, and extension services.	01
27	Doubling Farmers' Income: Strategies and Policy Implementation	01
28	Agricultural Extension Services: Transitioning from Top-Down to Farmer-Centric.	01
29	Agro-tourism and Rural Development Frameworks.	01
30	Enhancing Farm Livelihoods through Animal Husbandry and Fisheries.	01
31	Exotic plants their introduction and acclimatization	01
32	Market-led research designs and methodologies	01
33	Agri-business Management and Rural Entrepreneurship Development.	01
34	Methodologies and practices of secondary agriculture	01
35	Methodologies and practices for climate change resilience	01
36	Methods & techniques to enhance the outreach of an agricultural innovation	01
37	Challenges and opportunities of Hill Agriculture	01
38	Challenges and opportunities of exotic fruits and vegetable production.	01
39	Policies and national export frameworks of agricultural produce.	01
40	Intellectual Property Rights in Agriculture and allied	01
41	Protection of Plant Varieties and Farmers' Rights Act (PPV&FRA)	01
42	Registration of new germplasm in agriculture	01
43	Self Assessment and feedback	-
	Total	42

Deadlines:

Receipt of registration fee - 08.06.2026

Acceptance - 10.06.2026

Incomplete Application or not as per due date are likely not to be considered

Registration

Account Name: SamagraVikas Welfare Society, A/c no.: 680710110002572, Bank: Bank of India, Branch: Kaisherbagh, Lucknow, Uttar Pradesh, India, IFSC: BKID0006807

Interested candidates are requested to send the Complete filled registration form along with the prescribed Payment of Registration fee

Registration Fee

Category	Fee
Industrial/Exporters	*INR 6000.00*
Delegates/ Academia	*INR 5000.00*
RA/SRF/PDF/Non Permanent Staff	*INR 4000.00*
Old Members of SVWS	*INR 3000.00*
Students	
PhD	*INR 2000*
PG	*INR 1500*
UG	*INR 500*

**send the cash deposit/transaction receipt by email.*

Participants

- Vice Chancellors, Directors Research and Director Extension of State Agricultural Universities, State universities, Central universities (SAU's), Central Agricultural universities and scientific institutions.
- Directors, Scientists and students working at ICAR/CSIR Institutes.
- NGO/Corporate Sector, representative involved with Agriculture.
- International/National institutions working in the field of Agriculture.

Participation

Interested Candidates may send their Participation form in the word file along with updatedshort bio-data on email to secretarysvws@gmail.comin due date. After successful completion of 21 days training the certificate will be provided by the institute.

Brief About SVWS: SamagraVikas Welfare Society registered under the societies act 1860 (Registration No. 276-2009-10). This Society Working for inclusive growth of rural & farming population in the country. In the past, this society had organized successful events like seminars/workshops/farmers' fairs/trainings/Refresher courses at different places of the country with huge participation of stakeholders groups.

Brief About GNSU: The Gopal Narayan Singh University was established in 2018 under Bihar Private University Act. 2013. Further, it rose to the national arena when the University Grants Commission (UGC) approved the University in March 2019. It aims to provide the best education across various disciplines. With a sprawling campus spread over 70+ acres, the university offers a diverse range of programs and has become a hub of academic excellence in the region.

Organizing Committee:

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Registration Form

1	**Name (In capital letters)**	
3	**Nationality**	
5	**Present position/designation and place of work**	
6	**Official address with telephone, fax, e-mail**	
10	**Transaction Ref. No.:**	**Date:**

Participation:Account Name: SamagraVikas Welfare Society, A/c no.: 680710110002572, Bank: Bank of India, Branch: Kaisherbagh, Lucknow, Uttar Pradesh, India, IFSC: BKID0006807

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PhD	*INR 2000*
PG	*INR 1500*
UG	*INR 500*

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Declaration: I declare that no vigilance/disciplinary proceedings are pending against me and the information given above is true and correct to the best of my knowledge and belief.

Date: Signature of Applicant

Place: Name & Designation