

**World Food Prize Laureate , Padma Shri Prof. Rattan Lal delivered the World Food Day Lecture**

Prof. Rattan Lal, the distinguished 2020 World Food Prize Laureate and recipient of the Padma Shri Award, delivered the World Food Day Lecture in 2023 at ICAR-Indian Agricultural Research Institute through an online platform on October 17th, 2023, at 3:00 PM. Dr. Anupama Singh, Joint Director (Education) and Dean of The Graduate School at ICAR-IARI, New Delhi, warmly welcomed the attendees and provided a concise overview of the significance of World Food Day.

Dr. A. K. Singh, the Director of ICAR-IARI, extended his invitation to Prof. Rattan Lal, commending him for pioneering a soil-centric approach that not only enhances food production but also preserves vital natural resources while mitigating climate change effects. Dr. Singh accentuated Prof. Rattan's research, emphasizing how practices such as no-till farming, cover crops, crop residues, mulching, and agroforestry contribute to soil restoration and the sequestration of atmospheric carbon, thereby countering rising carbon dioxide levels in the atmosphere.

In his address, Prof. Rattan Lal emphasized the pivotal role of regenerative agriculture in addressing global challenges like climate change, food security, and water quality. His unique approach to assimilating science through linking it with spirituality is the foundation of a new kind of philosophy that strongly connects with ancient Indian wisdom to respect the abiotic and biotic components of the biosphere nurturing our lives. Dr Lal strongly recommended the judicious use of inputs to balance the need for optimum food production and maintaining the health of the environment. He strongly advocated the farmer-centric approach of any new initiative to counterbalance the damage to the environment or any innovative approach of profitable venture in agriculture, as, according to him, farmers should get the maximum benefit out of them, not the middlemen or non-farming profiteers.

Following the lecture, an interactive question and answer session enriched the discussion. Over 300 participants gained valuable insights from this enlightening event. The program was a collaborative effort between the IARI Alumni Association and IQAC at ICAR-IARI, New Delhi. Dr. Anil Dahuja, the Coordinator of IQAC at ICAR-IARI, New Delhi, coordinated the program and expressed gratitude on behalf of the organizing team.



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**World Food Day: Pride and Celebrations**  
*Rattan Lal*

CFAES Rattan Lal Center for Carbon Management & Sequestration, OSU,  
 Columbus, OH, USA

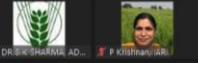
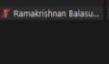
IARI, 2023 WFD Celebrations, New Delhi, India



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**Do's of India's Agriculture**

- 1. Adopting conservation agriculture
- 2. Recycling of crop residues and animal waste on land
- 3. Providing clean cooking fuel for rural community
- 4. Protecting prime agricultural land against urbanization
- 5. Planting trees on hilly land >7% slope
- 6. Revising curricula at school and college level to include soil and environmental education
- 7. Paying farmers for carbon farming at Rs5000 per credit
- 8. Encouraging religious organizations to preach land ethics and protection of soil and nature
- 9. Increasing dialogue with policymakers
- 10. Involving communities and panchayats in soil restoration

			Anupama Singh	A.K. Singh
			Dr S P Singh, PC...	
			A K Goswami	Shashi Singh
			DR B K SHARMA, AD...	
			G K Chait (IARI/Hem...)	Sadvatha, R. H.

### A SCENARIO OF FUTURE LAND AREA AND INPUTS FOR AGRICULTURE USING SOIL-CENTRIC TECHNOLOGY IN INDIA (continued)

Parameter	2017	2030	2050	2100
Irrigated land area (Mha, km <sup>2</sup> )	70 (200)	75 (150)	82 (100)	100 (75)
Fertilizer use (10 <sup>6</sup> Mg)	30	25	20	15
In-field residue burning (10 <sup>6</sup> Mg)	100	0	0	0
Pesticide use (10 <sup>6</sup> Mg)	56	30	20	10
Cereal Yield (Mg/ha)	2.1	2.7	2.8	4.0
Post-harvest losses (%)	34	10	5	5
Organic manure (10 <sup>6</sup> Mg/yr)	200	300	400	500

Reduce use of chemicals and food waste over time ➔

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