

## Publications

### Research articles

1. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi Prayaga. 2026. Impact of drip irrigation and tailored fertigation scheduling on yield and water use efficiency of high-density summer sweetcorn. *Frontiers in Sustainable Food Systems*. 10:1812228. Impact factor – 3.1
2. Gopinath KA, Visha Kumari V, Singh VK, Shanker AK, Reddy KS, Kundu S, Chary GR, Bhargavi B, Rajkumar B, **Lavanya N**, Chandana P, Krupashankar MR and Singh T (2025) Combined application of nano-DAP and conventional fertilizers improved agronomic and economic performance of rainfed maize, nutrient and energy use efficiency. *Frontiers in Agronomy*. 7:1723814. Impact factor – 4.1
3. K.A. Gopinath, V.Visha Kumari, V.K. Singh, A.K. Shanker, K. Sammi Reddy, S. Kundu, B. Bhargavi, B. Rajkumar, **N. Lavanya**, P. Chandana, B. Sunitha, M.R. Krupashankar, Tarunendu Singh. 2025. Impact of conventional and nano fertilizers on rainfed maize yield, profitability and soil nitrogen. *Frontiers in Nanotechnology*. 7:1617500 Impact factor – 3.8
4. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi Prayaga. 2024. Impact of drip irrigation and tailored fertigation levels at various stages of crop growth on the yield and nutrient uptake of high-density sweetcorn (*Zea mays var. Saccharata* Sturt). *Journal of Applied and Natural Science*. 16(4): 1780 – 1791 Naas rating- 5.42
5. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi Prayaga. 2023. Response of summer sweet-corn to drip irrigation and crop growth-based fertigation levels under high-density planting. *Indian Journal of Ecology*. 50(1): 99-107 Naas rating- 5.76
6. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi Prayaga. 2023. Evaluation of drip irrigation and crop growth stage based fertigation levels for high- density cotton production. *Environment and Ecology*. 41 (1A): 217-224. Naas rating- 5.25
7. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi Prayaga. 2022. Assessment of productivity, profitability, and economics of high-density cotton- sweet-corn production system under drip irrigation and fertigation levels. *Journal of Crop and Weed*. 18(1): 196-209. Naas rating- 5.46
8. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi Prayaga. 2022. Nutrient uptake, fibre quality, and productivity of high-density cotton as influenced by drip irrigation and crop growth stage based fertigation levels. *AATCC reviews*. 11-17. Naas rating- 6.11
9. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi Prayaga. 2021. Influence of different drip irrigation and fertigation levels on yield and economics of high- density summer sweet corn. *Journal of Research PJTSAU*. 49(4) 33-40. Naas rating- 4.38
10. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi

- Prayaga.2021. Influence of different drip irrigation and fertigation levels on yield and economics of high- density cotton. *International Journal of Environment and Climate Change*. 11(12): 226-234. Naas rating- 5.13
11. N. Lavanya, M. Malla Reddy, P. Revathi and G. Padmaja. 2018. Influence of Different Establishment methods, Varieties and N levels on Growth and Yield of Late Sown Rice in Telangana State. *International Journal of Current Microbiology and Applied Sciences*. (6): 1982-1993. Naas rating- 5.38
  12. N. Lavanya, M. Malla Reddy, P. Revathi and G. Padmaja. 2018. Partial factor productivity of nitrogen, nitrogen uptake and Soil health as influenced by different establishment methods, varieties and nitrogen levels in rice under late sown conditions in Telangana state. *International Journal of Chemical Studies*. 6(5): 1122-1127 Naas rating- 5.31
  13. N. Lavanya, M. Malla Reddy, P. Revathi and G. Padmaja. 2018. Economics of rice as influenced by different establishment methods, varieties and N levels under late sown conditions in Telangana state. *Multilogic in science*. 9(29): 254-257 Naas rating- 5.20
  14. N. Lavanya, M. Malla Reddy, P. Revathi and G. Padmaja. 2019. Yield attributes and quality parameters of rice under different establishment methods and varieties with nitrogen levels under late sown conditions in Telangana state. *Journal of Pharmacognosy and Phytochemistry*. 8(3): 4185-4192 Naas rating- 5.21
  15. N. Lavanya, M. Malla Reddy, P.Revathi and G. Padmaja. 2019. Effect of Different establishment Methods, varieties with N levels on the energetics of Rice as influenced under late sown conditions in Northern Telangana zone. *Bulletin of Environment, Pharmacology and Life Sciences*. 8(9): 56-61 Naas rating- 4.95

### Book chapters

1. N. Lavanya and G. Kishore Kumar. Climate-Smart Agriculture: Adopting to a Changing Environment. 2026. Agricultural Automation with IoT: A Pathway to Sustainable Development. Springer Nature. 11-30. ISBN 978-3-032-23210-6
2. Gudidha Gopi, Varsha Nakala and N.Lavanya. 2026. Artificial Intelligence and Machine Learning in Agriculture. Soil Conservation Technologies for the 21st Century. DvS Scientific Publications. 402-414. ISBN:- 978-93-6688-119-5
3. M. Malla Reddy, N. Lavanya, K. Sridhar, B. Padmaja, G. Rajitha and T. Prabhakar Reddy.2025. Recycling of crop residues: A sustainable tool for organic farming glimpses of Indian organic farming. Glimpses of Indian Organic Farming. Nipa publishers. pp: 81-102 ISBN: 978-93-58877-76-2
4. N. Lavanya. Concepts and Applications of FAO Aqua Crop Model-Water Productivity and Yield Response Model.2025.Innovative research and technology in agriculture science. Scripown publications. 45-68 ISBN: 978-81-19915-27-9
5. Varsha N, Lavanya, N. and Shiva, R.K. 2021. Biofortification. Agriculture and Forestry: Current Trends, Perspectives, Issue-IV. Immortal Publications, pp:

- 112-126. ISBN: 978-93-5437-486-9
6. Varsha, N. Lavanya, N, Gowri and Madhavi, M. 2019. Remote Sensing in Weed Management. *Advances in Agronomy*. Akinik Publications. Vol. 8: 1-23. ISBN: 978-93-5335-720-7
  7. Lavanya, N, Varsha N, Rajap shiva kumar. 2019. Role of artificial intelligence and internet of things in agriculture. *Research trends in agricultural extension*. *Advances in Agronomy*. Akinik Publications. Vol. 5: 71-88. ISBN: 978-93-5335-833-4
  8. Shiva, R.K., Varsha, N. and Lavanya, N. 2021. Weed Mapping Using PS and GIS. *Agriculture and Forestry: Current Trends, Perspectives, Issue-IV*. Immortal Publications, pp: 507-518. ISBN: 978-93-5437-486-9
  9. Rajap Shiva Kumar, Lavanya N, Adarsh, S, Giffy Thomas and Pandit Vaibhav Bhagwan. *Agricultural Practices to Improve Carbon Sequestration*. *Advances in Climate-Smart Agriculture*. Vital biotech publication. PP: 170-179. ISBN: 978-93-92953-19-4
  10. Rajap Shiva Kumar, **N. Lavanya** and N.Prathap Reddy. Status of crop yield forecasting in India (Agriculture and Forestry: Current Trends, Perspectives, Issues – IV). 2021. Immortal Publications. ISBN:978-93-5437-486-9.441-449
  11. Varsha. N, **Lavanya. N**, Vinay, G and Shiva Kumar, R. *Ecosystem Based Adaptation (Agriculture 2.0: Innovations in the Modern Farming)*. 2025. Just Agriculture Publications. ISBN: 978-93-344-1754-8. 228-234
  12. Varsha Nakala, **N. Lavanya** and Rajap Shiva Kumar. *Herbicide Resistance Crops*. 2021. Biotech Books. ISBN 978-81-7622-501-4. 77-90.

#### **Abstracts and extended summary**

1. K.A. Gopinath, V. Visha Kumari, J. Sowjanya, B. Bhargavi, B. Rajkumar, B. Sunitha, **N. Lavanya** and V.K. Singh. Organic farming in rainfed areas of India: A review.2025.Indian Journal of Agronomy (1st International Farming Systems Conference 2025, Special Issue) 70: S11-S19, CRIDA, Hyderabad. 29-31 January, 2025
2. **Lavanya. N** . Climate-Smart Agriculture as a Pathway for Climate change Adaptation and Mitigation, ICAR-2025, International conference on agricultural resurgence, 13-15 December, 2025, Hansraj College, University of Delhi, New Delhi & Hindustan Krishi Anusandhan Bhawan, NH-24, Delhi Road, Moradabad
3. **N. Lavanya** and N. Varsha. Organic farming as a strategy for Climate change adaptation and mitigation potential. 12th International Conference “Agriculture & Veterinary: Transformative Approach, Research & Innovations FORUM” (ICAVRI-2025) held on 16th –18th November, 2025 at Goa
4. **N. Lavanya**, T.prabhakar reddy, K.Gnaneshwar, B.Rajashekar, Aadhi Shankar, O.Shaila, K. Rama krishna and Afifa jahan. Impact assessment of Agromet advisory services in southern Telangana zone. National conference AGMET 2022 on advances in agrometeorological interventions for climate resilient agriculture. February 15-17, 2023, TNAU, Coimbatore
5. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi Prayaga.Effect of drip irrigation and fertigation levels on physiological parameters and

productivity of high density summer sweetcorn. XXII Biennial National Symposium on climate smart agronomy for resilient production systems and livelihood security. 22-24 November, 2023 at ICAR-CCARI, Ela, Goa.

6. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi Prayaga. Performance of *kharif* cotton as affected by drip irrigation and fertigation scheduling on high density cotton. Soil conservation society of India . Climate-Smart Agriculture as a Pathway for Climate change Adaptation and Mitigation<sup>0th</sup> web conference on “soil and water management technologies for climate resilience, agricultural and environmental sustainability”. 14-16 December, 2021. Bhubaneshwar, Odisha, India
7. **N. Lavanya**, P. Laxminarayana, K. B. Suneetha Devi, G. Jayasree, Lakshmi Prayaga. Impact of drip irrigation and fertigation levels on growth and yield of high density summer sweetcorn. International web conference on global research initiatives for sustainable agriculture and allied sciences (GRISAAS). 13-15 December, 2021, Astha foundation, Meerut, U.P, India.
8. **N. Lavanya**, M. Malla Reddy, P. Revathi and G. Padmaja Influence of different establishment methods, varieties and N levels on growth and yield of late sown rice in Telangana state. NCPGS “Novel approaches for Doubling farmers income through sustainable agricultural production systems” 7-8 march, 2019 at S.V.Agricultural college, Tirupathi, A.P.
9. **N.Lavanya** and Rajap shiva kumar. Internet of things and artificial intelligence for sustainable agriculture. “3<sup>rd</sup> AgriNANO- challenges and opportunities in agri nanotechnology (COAN-2019)”, 13-14 June, 2019, Tirupathi, A.P.
10. **N.Lavanya**. Economics and energetic of rice as influenced under different establishment methods, varieties and N levels under late sown conditions in Telangana state. 1<sup>st</sup> National conference on identification, convergence, implementation and extension of science-tech research for sustainable development (ICIESSD-2019) during 20-21 April-2019. Meerut, India
11. **N.Lavanya** and Rajap shiva kumar. Artificial intelligence in agriculture. 1<sup>st</sup> National conference on identification, convergence, implementation and extension of science-tech research for sustainable development (ICIESSD-2019) during 20-21 April-2019. Meerut, India
12. **N. Lavanya** and N. Varsha. Growth stage based irrigation and fertigation strategies for higher productivity. International Conference on Advances and Innovations in Agriculture & Allied Sciences (AIAAS-2020), 31 January - 01 February, 2020. Society for Agriculture & Allied Research (SAAR), (UP), India
13. **N. Lavanya**. New trends in fertigation management. International conference on Global Research initiatives for sustainable agriculture and allied sciences (GRISAAS-2019) during 20-22 October 2019 at ICAR-NAARM, Hyderabad, Telangana.

### **Popular articles**

1. T.Prabhakar reddy, **N.Lavanya**, K.Gnaneshwar, B.Rajashekar, O.Shaila, K. Rama krishna, Aadhi Shankar, and E. jyothsna. Pathi panta tharvatha vesavilo vesuko thagga pantalu. *Vyavasaayam*. January 2024

2. T.Prabhakar reddy, **N.Lavanya**, K.Gnaneshwar, B.Rajashekar, O.Shaila, K. Rama krishna, Aadhi Shankar, and E. jyothsna. Vividha vaathavarana paristhithulalo varini aashinche cheedapeedalu- nivarana maargaalu. *Vyavasaayam*. December 2023.
3. **N.Lavanya**,T.Prabhakar reddy, K. Rama krishna, M.Rajashekar B.Rajashekar, Aadhi Shankar, and Afifa jahan. Rain pipe vidhanam tho neeti samardhatha viniyogam. *Vyavasaayam*. October 2023
4. T.Prabhakar reddy, **N.Lavanya**, K.Rama Krishna, K. Rama krishna, M.Rajashekar, B.Rajashekar, Aadhi Shankar, and Afifa jahan. Pathi pantalo boron lopa lakshanalu mariyu savarana.*Vyavasaayam*.October 2023
5. T.Prabhakar reddy, K.Gnaneshwar, **N.Lavanya**, K. Rama krishna, B.Rajashekar, Aadhi Shankar, O.Shaila, K. Rama krishna and Afifa jahan. Aadhunika vyavasaayam lo sarikotha oravadi- nano eruvulavaadakam. *Vyavasaayam*. August 2023
6. **N.Lavanya**, T.Prabhakar reddy, K.Gnaneshwar, O.Shaila, B.Rajashekar, Aadhi Shankar, E. jyothsna and M.Parimal kumar. Pathilo vividha vaathavarana paristhithilo uthpannamayye cheedapeedalu-nivaranamaargalu. *Vyavasaayam*. July 2023.
7. **N.Lavanya**, T.Prabhakar reddy, K.Gnaneshwar, O.Shaila, B.Rajashekar, Aadhi Shankar, E. jyothsnaand M.Parimal kumar. Chinna sandhesam pedha prayojanam. *Vyavasaayam*. May 2023.
8. **N.Lavanya**,T.Prabhakar reddy, K.Gnaneshwar, K. Rama krishna, B.Rajashekar, Aadhi Shankar, O.Shaila, and Afifa jahan. Raithu sevalo meghadhooth mariyu rain alarm apps. *Vyavasaayam*. April 2023.
9. Varsha, N and **Lavanya N.** Jeevana eruvulu. *Vyavasaya padipantalu*, June 2019
10. Varsha, N, Madavi, M. and **Lavanya N.** Pogakumalle- paranajeevi kalupu mokka. *Vyavasaya padipantalu*, June 2019
11. Varsha N. **Lavanya, N** and Shiva kumar, R. Vyavasayamlo jeevana eruvula paathra. *Vyavasaya padipantalu*, July, 2019.
12. **Lavanya N.**Management strategies for late sown paddy. *Agrobios*. June 2019.
13. Varsha, N and **Lavanya N.** 2019. Influence of tillage on weed dynamics. *Agrobios*. 18(8).
14. **Lavanya,N.** and Varsha, N. Internet of Things and Artificial Intelligence – A Step For Advanced Farming. *Agrobios*. July 2019. 18(2):26.
15. **Lavanya,N.** and Varsha, N. 2019. Improved Trends in Fertigation Management. *Agrobios*. 18(6):09.