Sher-e-Bangla Agricultural University

SDG Activity Report

On

SDG 02:
Zero Hunger

Contents

Faculty Research and Publications (2025–2026)

1. Next-Generation Crop Improvement: Social, Ethical, and Regulatory Perspectives on GMO Commercialization and Future Challenges

2. Unravelling the Influence of Silicon Nanoparticles on Growth and Physiological Changes in Rice Under Cadmium Stress

3. Heavy Metals and Trace Elements in the Context of the SDGs

4. Climate-smart technology adoption in hazard-prone areas: does this adoption impact farm families' food security?

5. Assessing the links between climate change resiliency and food security in northwestern region of Bangladesh

6. Harnessing plant–microbe interactions for sustainable crop improvement: from genomics to breeding

7. Does the adoption of improved pulse technologies increase farm profitability in the face of climate risk? Evidence from coastal Bangladesh

8. Prediction to Prevention: Comparative Machine Learning Models for Early Intervention of Dactyloctenium radulans in Australia

9. Impact of plant growth promoting rhizobacteria inoculation on growth and physiological traits of ginger in field conditions

10. Fowl adenovirus infections: A comprehensive review of prevalence, pathogenesis, diagnosis, control, and economic impact

11. An Efficient and Explainable Ensemble Framework for Rice Leaf Disease Classification Using Lightweight Deep Learning Models

12. Bioaugmentation with Plant Growth-Promoting Rhizobacteria Alleviates Chromium and Salt Stress in Rice Through the Improvement of Physiology, Ion Homeostasis, and Antioxidant Defense

13. Effect of integrated seed priming on storage duration for enhanced germination traits in lentil (Lens culinaris L.) under salinity stress

14. GLOBAL RESEARCH TRENDS IN ENHANCING MAIZE PRODUCTIVITY UNDER WATER SCARCITY: A BIBLIOMETRIC ANALYSIS OF MOLECULAR AND PHYSICAL INTERVENTIONS (1984-2026)

15. FieldMaizeLeaf-8: A real-field early vegetative maize leaf stress image dataset from Bangladesh

16. Nanocellulose: A novel pathway to sustainable agriculture, environmental protection, and circular bioeconomy

17. Market dynamics, consumer preferences, systemic barriers, and the potential of integrated multi-trophic aquaculture in Bangladesh

18. Effects of Trichoderma and Insecticides on Chewing and Phloem-feeding Herbivores in Cucumber

19. Melatonin's Role in Enhancing Waterlogging Tolerance in Plants: Current Understanding and Future Directions

20. Biodiversity of citrus fruits in Bangladesh

21. Evaluation of Tomato yellow leaf curl virus (TYLCV) resistance and yield performance of different genotypes of tomato

22. Synergistic effects of vermicompost and biochar amendments on cherry tomato production in an urban rooftop garden: A 2-year study

23. USE OF YOUTUBE FOR DIFFUSION OF INNOVATIVE AGRICULTURAL TECHNOLOGIES: A DIGITAL SELF-HELP APPROACH TO THE FARMERS; [UPOTREBA JUTJUBA ZA ŠIRENJE INOVATIVNIH POLJOPRIVREDNIH TEHNOLOGIJA: DIGITALNI PRISTUP PODRŠKE POLJOPRIVREDNICIMA]

24. Optimizing raised bed dimensions for enhanced maize yield, water footprint reduction, and improved soil moisture dynamics under furrow irrigation

25. Analyzing the impact of climate change and renewable energy on agricultural productivity in Bangladesh using an ARDL model

26. Rethinking household food security under a changing climate in drought prone areas of Ethiopia

27. Understanding climate change-induced drought shocks and coping strategies of farmers in the Barind Tract Region, Bangladesh

28. Chicken manure matches mineral P fertiliser in crop response and soil phosphorus dynamics in a wheat–canola–wheat system

29. Selenium and seaweed extracts exhibit synergistic actions in regulating antioxidant defense in rice under salt stress

30. Determinants of happiness among pregnant women in Bangladesh

31. Molecular Insights into NAC Transcription Factors: Key Regulators of Plant Response to Metal Stress

32. Climate-smart practice: level of effectiveness and determinants of Sorjan farming adoption in coastal Bangladesh

33. Climate-smart aquaculture practice: Changes in economic viability and efficiency of mud crab fattening in coastal Bangladesh

34. Estimating soil organic carbon by integrating mid-infrared spectroscopy with explainable machine learning

35. Enhancing Salt Tolerance in Foxtail Millet Through Organic Inputs: A Soil–Plant–Microbe Interaction Perspective

36. Microalgal diversity, nutritional profiles, and applications in poultry nutrition: A comprehensive review

37. Domestic Lentil Production in Bangladesh Is More Advantageous Than Using Overseas Imports

38. Revealing the mechanistic basis of differential salt-induced oxidative stress tolerance between Oryza sativa and Oryza coarctata

39. Phytoprotectants in action: Shielding plants from oxidative damage under temperature extremes and waterlogging stress

40. Exploring small-holder farmers' adaptation strategies under soil salinity impacts in coastal areas of Bangladesh

41. Potted garden pea grown in presence of pre-emergence herbicides: Impacts on soil enzymes and human health

42. Imperative roles of auxin signaling in reprogramming of drought tolerance in plants

43. Multi-Trait Index-Based Selection of Drought Tolerant Wheat: Physiological and Biochemical Profiling

44. Plants under toxic element stress: microRNA-mediated regulatory pathways and emerging perspectives

45. Framework for early assessment of food safety hazards in the transition to a more sustainable food system: three case studies in the Vietnamese Mekong Delta

46. Evaluation of the Effects of Two Plant Growth-Promoting Bacterial Strains (Bacillus tequilensis and Bacillus subtilis) on Tomato Growth, Physiology, and Nitrogen Utilization Efficiency at Various Nitrogen Levels

47. Determinants of adoption of climate-smart agriculture (CSA) practices in mushroom farming in Bangladesh

48. Genetic variability and trait associations pertaining to agronomic, post-harvest, and nutritional characteristics of the parents and hybrids of tomato (Solanum lycopersicum L)

49. Advancement in genome sequencing of wheat wild relatives

50. Pesticide perceptions, practices, and Bt cotton adoption potential among Bangladeshi cotton farmers

51. Pesticide handling practices, occupational risks, and health expenses among Bangladeshi smallholder vegetable farmers

52. Mechanisms of waterlogging tolerance in plants

53. Mushroom Farming: A Potential Tool for Nutritional Security and Income Generation in Bangladesh

54. Assessing resilience of surface water management schemes in Bangladesh: strategic insights for transformation

55. Combining Traditional Breeding with Molecular Techniques: An Integrative Approach

56. Resilience and Sustainability of SRI in Odisha: Adoption Dynamics and Farm-Level Outcomes

57. Tomato Cultivation in Bangladesh: Insights into Pest Awareness and Disease Management

58. Fungi for Future Farming: Enhancing Nutrient Uptake and Stress Resilience in Sustainable Development Era

59. Genome-wide association analysis locates FtAUR3 in Tartary buckwheat that contributes to enhance plant salt resistance

60. Evaluating farmers' satisfaction from high-yielding rice (Oryza sativa) variety cultivation in boro season: evidence from adaptive trials in Bangladesh

61. Agro-Morphological and Cytogenetic Characterization of Hibiscus Genetic Resources: Implications for Germplasm Conservation and Interspecific Breeding

62. Impact of climate change on Boro rice production in Bangladesh: Evidence from time series modeling

63. Herbicides in modern sustainable agriculture: environmental fate, ecological implications, and human health concerns

64. River Waste to Goldmine: A Tale of Floating Agriculture in Vulnerable Southern Regions of Bangladesh

65. Integration of Biochar into Soil Unravels Protective Mechanisms Against Plastic-Induced Stress in Lens culinaris by Modulating Physiological Traits, Antioxidant Defense, and Methylglyoxal Detoxification Systems

66. Navigating the productivity-adaptation-mitigation triangle in climate-smart agriculture for rice-based ecosystems

67. Salmon superfood: Nourishing the body with oceanic goodness

68. Unlocking Food Security in Flood-Prone Bangladesh: The Power of Women-Led Climate-Smart Agriculture

69. Physiological, biochemical and morphological responses of diverse tomato genotypes to early drought stress

70. Farmers’ knowledge, attitudes, and practices regarding lumpy skin disease in Northern Bangladesh

71. Leveraging Machine Learning to Predict Potato Shelf Life: A Comprehensive Analysis in an Evaporative Cooling Structure

72. Evaluation of Bio-Rational Insecticides for Controlling Hemipteran Sucking Pests and Their Impact on Natural Enemies in Tomato (Lycopersicon esculentum Mill.) Cultivation at Sylhet Region in Bangladesh

73. Water at the Crossroads: Challenges and Opportunities for SDG Integration in Bangladesh

74. Beyond the outfall: a systems thinking review of industrial water pollution impacts on agricultural systems

75. Eco-efficient synergy of vermicompost and biochar in coir-based substrate enhances cherry tomato performance under urban rooftop garden conditions

76. Gene Bank: Conservation of Genetic Resources in the Genomic Era

77. Animal Selection and Management Strategies for Meat Quality and Sustainability

78. Harnessing Rice Combine Harvester Adoption for Sustainable Agriculture in the Haor (Wetland) Ecosystem of Bangladesh

79. Time-Frequency Analysis Reveals That Seaweed Farming Enhances Phytoplankton Resilience Under ENSO Events

80. Pulse farmers' adaptation to climate-induced variability in coastal Bangladesh: Perceptions, strategies, and drivers

81. Harnessing double-stranded RNA (dsRNA): a sustainable approach to pest management

82. Magnesium-mediated stress adaptation in plants: from physio-biochemical insights to climate-resilient agriculture

83. Stress-Responsive Legume Microbiomes: Metagenomic Approaches for Functional and Applied Insights

84. What does matter most for farmers' choice of marketing channels? Evidence from coastal Bangladesh

85. Environmental and captivity-driven carapace shape variation in the giant freshwater prawn (Macrobrachium rosenbergii): implications for aquaculture and broodstock management

86. Proteomics in Allopolyploid Crops: Stress Resilience, Challenges and Prospects

87. Stakeholder and expert opinion of solar radiation modification in South Asia: insights into perceptions, geopolitical, and governance concerns in Bangladesh

88. Adaptation strategies to waterlogging among coastal farmers in Bangladesh: Practices, determinants, and implications for resilient agriculture

89. Corrigendum to "Thermochemical and physical characterization of agricultural biomass for sustainable energy in Bangladesh" (Energy Reports (2024) 12 (5758–5768), (S2352484724007789), (10.1016/j.egyr.2024.11.059))

90. Groundwater under the lens: a remote sensing exploration of storage patterns and trends in Bangladesh

91. Feeding selectivity and gametogenic cycle of Crassostrea madrasensis in relation to seasonal plankton and environmental variability in the southeast coast of the Bay of Bengal, Bangladesh

92. Development of a Silicon Efficiency Index Integrated with GGE Biplot Analysis for Identifying Salinity-tolerant Wheat Genotypes

93. GENETIC DIVERSITY OF EXOTIC WHITE MAIZE GENOTYPES THROUGH PRINCIPAL COMPONENT AND CLUSTER ANALYSIS FOR YIELD-RELATED TRAITS

94. Plant secondary metabolites against biotic stresses for sustainable crop protection

95. Crop and farming-system diversification strategies for coastal agricultural resilience: a systematic review through DPSIR lens

96. Correction: Learning from nature: Photosynthetic traits conferring superior salt tolerance in wild rice Oryza coarctata (Philosophical Transactions of the Royal Society B: Biological Sciences (2025) 380 (20240242) DOI: 10.1098/rstb.2024.0242)

97. Surface water quality and heavy metal assessment in a tropical coastal zone for identifying favorable crop production seasons

98. Risk and vulnerability assessment of coastal social–ecological systems in Bangladesh with strategic pathways for stewardship

99. Climate-Resilient Technologies for Smart Agriculture

100. Nexus of women's participation in smallholder financial inclusion programs and economic efficiency: implications for poverty alleviation

101. Coping with climate change: an analysis of farmers' adoption behavior and its impact on production efficiency

102. Learning from nature: Photosynthetic traits conferring superior salt tolerance in wild rice Oryza coarctata

103. Temporal patterns and management effectiveness of insect pests and diseases in Boro rice cultivation: A 5-year analysis (2019–2023)

104. Comparative analysis of explainable machine learning integrated with hyperspectral imaging for early prediction of wheat yield

105. Microbial Degradation of Herbicide Residues in Australian Soil: An Overview of Mechanistic Insights and Recent Advancements

106. Potential of Seaweed to Improve the Quality and Shelf Life of Fish and Fishery Products

107. Comparative analysis of weed management techniques in taro (Colocasia esculenta (L.) Schott)

108. Is it economically rational to switch to short-duration rice varieties? Evidence from climate vulnerable freshwater wetland areas

109. Community Perceptions and Economic Drivers of Hilsa Fishery Conservation in Riverbank Villages of Bangladesh

110. Eating Choices and Planet's Sustainability; How Far Consumers Are Willing to Pay for Sustainable Food Consumption in Middle-Income Countries?

111. Environmental Fate, Transformation, and Interactions of Agrochemicals and Micro-Nano Plastics in Agricultural Ecosystem

112. Exploring Plant Stress Tolerance: A Metabolomics Approach

113. Understanding rice farmers' fertilizer application behavior to advance sustainable agricultural practices in Bangladesh: insights from the extended KAP model

114. Silicon nanoparticles mitigate cadmium toxicity in rice by modulating root development and exudate dynamics

115. Transcription factors – Insights into abiotic and biotic stress resilience and crop improvement

116. Reactive Oxygen Species in Crop Plants: Production, Detoxification, Signaling, and Molecular Cross-Talk

Faculty Research and Publications

1. Next-Generation Crop Improvement: Social, Ethical, and Regulatory Perspectives on GMO Commercialization and Future Challenges

Author: Boora N.; Ahlawat Y.; Chaudhary D.; Jaiwal P.K.; Kundu S.

Year: 2025

DOI / Link: https://doi.org/10.1007/978-981-95-0309-4_14

Abstract: This study, published in Next-Generation Strategies for Crop Improvement (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating next-generation crop improvement: social, ethical, and regulatory perspectives on gmo commercialization and future challenges. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Boora N.; Ahlawat Y.; Chaudhary D.; Jaiwal P.K.; Kundu S.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

2. Unravelling the Influence of Silicon Nanoparticles on Growth and Physiological Changes in Rice Under Cadmium Stress

Author: Hosain M.T.; Shahid M.; Sarkar M.I.U.; Rahman M.M.; Naidu R.; Rahman M.M.

Year: 2026

DOI / Link: https://doi.org/10.1002/sae2.70160

Abstract: This study, published in Journal of Sustainable Agriculture and Environment (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating unravelling the influence of silicon nanoparticles on growth and physiological changes in rice under cadmium stress. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hosain M.T.; Shahid M.; Sarkar M.I.U.; Rahman M.M.; Naidu R.; Rahman M.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

3. Heavy Metals and Trace Elements in the Context of the SDGs

Author: Ali M.M.; Hossain D.; Hossain M.K.; Nag S.K.; Bristi S.Z.T.; Ahmed M.J.

Year: 2026

DOI / Link: https://doi.org/10.1007/978-3-032-26858-7_6

Abstract: This study, published in Trace Elements and Heavy Metals: Bridging Sustainability and Global Health Goals: Volume One (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating heavy metals and trace elements in the context of the sdgs. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Ali M.M.; Hossain D.; Hossain M.K.; Nag S.K.; Bristi S.Z.T.; Ahmed M.J.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

4. Climate-smart technology adoption in hazard-prone areas: does this adoption impact farm families' food security?

Author: Qian J.; Rahman A.; Zhu N.; Alnafissa M.

Year: 2025

DOI / Link: https://doi.org/10.1057/s41599-025-04954-1

Abstract: This study, published in Humanities and Social Sciences Communications (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating climate-smart technology adoption in hazard-prone areas: does this adoption impact farm families' food security?. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Qian J.; Rahman A.; Zhu N.; Alnafissa M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

5. Assessing the links between climate change resiliency and food security in northwestern region of Bangladesh

Author: Sarker A.; Yasin S.I.; Ghosh B.C.; Mwalupaso G.E.; Akter A.; Kiprop E.; Zhenzhen L.; Eyasmin F.; Xianhui G.

Year: 2026

DOI / Link: https://doi.org/10.17221/218/2025-AGRICECON

Abstract: This study, published in Agricultural Economics (Czech Republic) (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating assessing the links between climate change resiliency and food security in northwestern region of bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sarker A.; Yasin S.I.; Ghosh B.C.; Mwalupaso G.E.; Akter A.; Kiprop E.; Zhenzhen L.; Eyasmin F.;

Xianhui G.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

6. Harnessing plant–microbe interactions for sustainable crop improvement: from genomics to breeding

Author: Kayess O.; Tahjib-Ul-Arif; Halder T.; Siddiqui N.

Year: 2026

DOI / Link: https://doi.org/10.1007/s13199-026-01116-y

Abstract: This study, published in Symbiosis (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating harnessing plant–microbe interactions for sustainable crop improvement: from genomics to breeding. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Kayess O.; Tahjib-Ul-Arif; Halder T.; Siddiqui N.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

7. Does the adoption of improved pulse technologies increase farm profitability in the face of climate risk? Evidence from coastal Bangladesh

Author: Kundu N.D.; Uddin M.T.; Shama A.S.; Sattar M.N.; Majumder M.K.; Tushar M.T.I.; Islam M.M.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.envc.2025.101384

Abstract: This study, published in Environmental Challenges (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating does the adoption of improved pulse technologies increase farm profitability in the face of climate risk? evidence from coastal bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Kundu N.D.; Uddin M.T.; Shama A.S.; Sattar M.N.; Majumder M.K.; Tushar M.T.I.; Islam M.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

8. Prediction to Prevention: Comparative Machine Learning Models for Early Intervention of Dactyloctenium radulans in Australia

Author: Asaduzzaman M.; Mandal M.S.H.; Koetz E.; Rahman A.; Masum S.M.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.rama.2026.02.004

Abstract: This study, published in Rangeland Ecology and Management (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating prediction to prevention: comparative machine learning models for early intervention of dactyloctenium radulans in australia. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Asaduzzaman M.; Mandal M.S.H.; Koetz E.; Rahman A.; Masum S.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

9. Impact of plant growth promoting rhizobacteria inoculation on growth and physiological traits of ginger in field conditions

Author: Jabborova D.; Kadirova D.; Jabbarov Z.; Thakker J.N.; Rathod K.; Jabborov M.; Madan A.; Jahan M.S.; Rahimi M.; Husaini A.M.

Year: 2025

DOI / Link: https://doi.org/10.1007/s10482-025-02161-1

Abstract: This study, published in Antonie van Leeuwenhoek, International Journal of General and Molecular Microbiology (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating impact of plant growth promoting rhizobacteria inoculation on growth and physiological traits of ginger in field conditions. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Jabborova D.; Kadirova D.; Jabbarov Z.; Thakker J.N.; Rathod K.; Jabborov M.; Madan A.; Jahan M.S.; Rahimi M.; Husaini A.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

10. Fowl adenovirus infections: A comprehensive review of prevalence, pathogenesis, diagnosis, control, and economic impact

Author: Islam M.M.; Nadia M.M.A.; Islam M.R.; Islam M.S.; Sunny S.A.; Islam M.; Sultana S.; Alam M.J.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.psj.2026.106565

Abstract: This study, published in Poultry Science (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating fowl adenovirus infections: a comprehensive review of prevalence, pathogenesis, diagnosis, control, and economic impact. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Islam M.M.; Nadia M.M.A.; Islam M.R.; Islam M.S.; Sunny S.A.; Islam M.; Sultana S.; Alam M.J.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

11. An Efficient and Explainable Ensemble Framework for Rice Leaf Disease Classification Using Lightweight Deep Learning Models

Author: Islam M.H.; Nur F.N.; Israfil M.

Year: 2025

DOI / Link: https://doi.org/10.1109/STI69347.2025.11367554

Abstract: This study, published in 2025 IEEE 7th International Conference on Sustainable Technologies For Industry 5.0, STI 2025 (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating an efficient and explainable ensemble framework for rice leaf disease classification using lightweight deep learning models. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Islam M.H.; Nur F.N.; Israfil M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

12. Bioaugmentation with Plant Growth-Promoting Rhizobacteria Alleviates Chromium and Salt Stress in Rice Through the Improvement of Physiology, Ion Homeostasis, and Antioxidant Defense

Author: Sobahan M.A.; Akter N.; Karim M.M.; Badhon M.M.I.; Khan S.N.; Alam S.; Prasad P.V.V.; Hasanuzzaman M.

Year: 2025

DOI / Link: https://doi.org/10.3390/microorganisms13071462

Abstract: This study, published in Microorganisms (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating bioaugmentation with plant growth-promoting rhizobacteria alleviates chromium and salt stress in rice through the improvement of physiology, ion homeostasis, and antioxidant defense. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress

resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sobahan M.A.; Akter N.; Karim M.M.; Badhon M.M.I.; Khan S.N.; Alam S.; Prasad P.V.V.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

13. Effect of integrated seed priming on storage duration for enhanced germination traits in lentil (Lens culinaris L.) under salinity stress

Author: Rao D.; Yadav S.; Choudhary R.; Singh D.; Bhardwaj R.; Barthakur S.; Hasanuzzaman M.; Sushkova S.; Singh J.; Yadav S.K.

Year: 2026

DOI / Link: https://doi.org/10.1002/jsfa.70289

Abstract: This study, published in Journal of the Science of Food and Agriculture (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating effect of integrated seed priming on storage duration for enhanced germination traits in lentil (lens culinaris l.) under salinity stress. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Rao D.; Yadav S.; Choudhary R.; Singh D.; Bhardwaj R.; Barthakur S.; Hasanuzzaman M.; Sushkova S.; Singh J.; Yadav S.K.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

14. GLOBAL RESEARCH TRENDS IN ENHANCING MAIZE PRODUCTIVITY UNDER WATER SCARCITY: A BIBLIOMETRIC ANALYSIS OF MOLECULAR AND PHYSICAL INTERVENTIONS (1984-2026)

Author: Hayat M.K.; Ijaz H.; Jamali S.; Zafar S.; Ashraf Z.U.; Shahriyar S.; Cengiz R.; Öten M.; Akter A.; Mahmud M.N.

Year: 2026

DOI / Link: https://doi.org/10.47278/journal.abr/2026.042

Abstract: This study, published in Agrobiological Records (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating global research trends in enhancing maize productivity under water scarcity: a bibliometric analysis of molecular and physical interventions (1984-2026). The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hayat M.K.; Ijaz H.; Jamali S.; Zafar S.; Ashraf Z.U.; Shahriyar S.; Cengiz R.; Öten M.; Akter A.; Mahmud M.N.) detail strategic interventions, resource management strategies, and

policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

15. FieldMaizeLeaf-8: A real-field early vegetative maize leaf stress image dataset from Bangladesh

Author: Akter L.; Arman M.S.; Chowdhury S.H.; Mohsin S.M.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.dib.2026.113337

Abstract: This study, published in Data in Brief (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating fieldmaizeleaf-8: a real-field early vegetative maize leaf stress image dataset from bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Akter L.; Arman M.S.; Chowdhury S.H.; Mohsin S.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

16. Nanocellulose: A novel pathway to sustainable agriculture, environmental protection, and circular bioeconomy

Author: Ahmed S.; Islam M.S.; Antu U.B.; Islam M.M.; Rajput V.D.; Mahiddin N.A.; Paul J.R.; Ismail Z.; Ibrahim K.A.; Idris A.M.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.ijbiomac.2024.137979

Abstract: This study, published in International Journal of Biological Macromolecules (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating nanocellulose: a novel pathway to sustainable agriculture, environmental protection, and circular bioeconomy. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Ahmed S.; Islam M.S.; Antu U.B.; Islam M.M.; Rajput V.D.; Mahiddin N.A.; Paul J.R.; Ismail Z.; Ibrahim K.A.; Idris A.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

17. Market dynamics, consumer preferences, systemic barriers, and the potential of integrated multi-trophic aquaculture in Bangladesh

Author: Zewdie M.C.; Bari S.M.; Ahmed S.T.; Hamid M.A.; Bhuyain M.A.B.; Ali S.M.; Magondu E.W.; Rossignoli C.M.; Yossa R.

Year: 2026

DOI / Link: https://doi.org/10.3389/fsufs.2026.1781267

Abstract: This study, published in Frontiers in Sustainable Food Systems (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating market dynamics, consumer preferences, systemic barriers, and the potential of integrated multi-trophic aquaculture in bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Zewdie M.C.; Bari S.M.; Ahmed S.T.; Hamid M.A.; Bhuyain M.A.B.; Ali S.M.; Magondu E.W.; Rossignoli C.M.; Yossa R.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

18. Effects of Trichoderma and Insecticides on Chewing and Phloem-feeding Herbivores in Cucumber

Author: Hassan K.; Sarker S.; Alam M.M.; Sarkar T.; Mondal M.F.; Pervin M.

Year: 2026

DOI / Link: https://doi.org/10.1007/s10343-026-01343-9

Abstract: This study, published in Journal of Crop Health (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating effects of trichoderma and insecticides on chewing and phloem-feeding herbivores in cucumber. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hassan K.; Sarker S.; Alam M.M.; Sarkar T.; Mondal M.F.; Pervin M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

19. Melatonin's Role in Enhancing Waterlogging Tolerance in Plants: Current Understanding and Future Directions

Author: Jahan M.S.; Hasan M.M.; Siddique A.B.; Zarbakhsh S.; Hamada M.M.; Hussain M.A.; Jabborova D.; Corpas F.J.

Year: 2025

DOI / Link: https://doi.org/10.1111/ppl.70499

Abstract: This study, published in Physiologia Plantarum (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating melatonin's role in enhancing waterlogging tolerance in plants: current understanding and future directions. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance

crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Jahan M.S.; Hasan M.M.; Siddique A.B.; Zarbakhsh S.; Hamada M.M.; Hussain M.A.; Jabborova D.; Corpas F.J.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

20. Biodiversity of citrus fruits in Bangladesh

Author: Rahman J.; Rahman Md.Z.; Tasfia A.; Bhuyan M.H.M.B.

Year: 2026

DOI / Link: https://doi.org/10.17660/ActaHortic.2026.1448.94

Abstract: This study, published in Acta Horticulturae (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating biodiversity of citrus fruits in bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Rahman J.; Rahman Md.Z.; Tasfia A.; Bhuyan M.H.M.B.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

21. Evaluation of Tomato yellow leaf curl virus (TYLCV) resistance and yield performance of different genotypes of tomato

Author: Mollah N.; Rahman F.; Khan M.F.A.-H.; Hasan M.M.; Tasmim F.; Das R.C.; Khan M.R.; Munna M.M.H.; Halim M.A.; Cho K.; Sharif M.O.; Roy S.K.; Sultana F.; Ahmed F.

Year: 2026

DOI / Link: https://doi.org/10.17221/54/2026-CJGPB

Abstract: This study, published in Czech Journal of Genetics and Plant Breeding (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating evaluation of tomato yellow leaf curl virus (tylcv) resistance and yield performance of different genotypes of tomato. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Mollah N.; Rahman F.; Khan M.F.A.-H.; Hasan M.M.; Tasmim F.; Das R.C.; Khan M.R.; Munna M.M.H.; Halim M.A.; Cho K.; Sharif M.O.; Roy S.K.; Sultana F.; Ahmed F.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

22. Synergistic effects of vermicompost and biochar amendments on cherry tomato production in an urban rooftop garden: A 2-year study

Author: Islam M.M.; Islam R.; Nizam R.; Afsana N.; Sakib S.; Parvin S.; Mahmud J.A.; Hasanuzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.1002/uar2.70045

Abstract: This study, published in Urban Agriculture and Regional Food Systems (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating synergistic effects of vermicompost and biochar amendments on cherry tomato production in an urban rooftop garden: a 2-year study. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Islam M.M.; Islam R.; Nizam R.; Afsana N.; Sakib S.; Parvin S.; Mahmud J.A.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

23. USE OF YOUTUBE FOR DIFFUSION OF INNOVATIVE AGRICULTURAL TECHNOLOGIES: A DIGITAL SELF-HELP APPROACH TO THE FARMERS; [UPOTREBA JUTJUBA ZA ŠIRENJE INOVATIVNIH POLJOPRIVREDNIH TEHNOLOGIJA: DIGITALNI PRISTUP PODRŠKE POLJOPRIVREDNICIMA]

Author: Mazumder M.S.U.; Wadud F.; Barua S.

Year: 2026

DOI / Link: https://doi.org/10.2298/JAS2601073M

Abstract: This study, published in Journal of Agricultural Sciences (Belgrade) (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating use of youtube for diffusion of innovative agricultural technologies: a digital self-help approach to the farmers; [upotreba jutjuba za širenje inovativnih poljoprivrednih tehnologija: digitalni pristup podrške poljoprivrednicima]. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Mazumder M.S.U.; Wadud F.; Barua S.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

24. Optimizing raised bed dimensions for enhanced maize yield, water footprint reduction, and improved soil moisture dynamics under furrow irrigation

Author: Islam M.T.; Bhuyan M.Y.; Das N.; Jahan N.; Rahman M.M.; Jewel M.A.H.; Adham A.K.M.

Year: 2025

DOI / Link: https://doi.org/10.13057/asianjagric/g090102

Abstract: This study, published in Asian Journal of Agriculture (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating optimizing raised bed dimensions for enhanced maize yield, water footprint reduction, and improved soil moisture dynamics under furrow irrigation. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Islam M.T.; Bhuyan M.Y.; Das N.; Jahan N.; Rahman M.M.; Jewel M.A.H.; Adham A.K.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

25. Analyzing the impact of climate change and renewable energy on agricultural productivity in Bangladesh using an ARDL model

Author: Ahammad S.; Datta T.; Mosharof N.B.; Islam M.F.; Bhuiyan M.I.H.; Ahmed M.J.; Alam K.E.

Year: 2026

DOI / Link: https://doi.org/10.1007/s43621-026-03525-x

Abstract: This study, published in Discover Sustainability (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating analyzing the impact of climate change and renewable energy on agricultural productivity in bangladesh using an ardl model. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Ahammad S.; Datta T.; Mosharof N.B.; Islam M.F.; Bhuiyan M.I.H.; Ahmed M.J.; Alam K.E.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

26. Rethinking household food security under a changing climate in drought prone areas of Ethiopia

Author: Mwalupaso G.E.; Eshetie A.M.; Matafwali E.; Akter A.; Lu H.; Geng X.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.landusepol.2024.107437

Abstract: This study, published in Land Use Policy (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating rethinking household food security under a changing climate in drought prone areas of ethiopia. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Mwalupaso G.E.; Eshetie A.M.; Matafwali E.; Akter A.; Lu H.; Geng X.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

27. Understanding climate change-induced drought shocks and coping strategies of farmers in the Barind Tract Region, Bangladesh

Author: Alam M.M.; Shaba S.A.; Farhaz S.; Toma L.T.; Ali H.M.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.indic.2026.101208

Abstract: This study, published in Environmental and Sustainability Indicators (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating understanding climate change-induced drought shocks and coping strategies of farmers in the barind tract region, bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Alam M.M.; Shaba S.A.; Farhaz S.; Toma L.T.; Ali H.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

28. Chicken manure matches mineral P fertiliser in crop response and soil phosphorus dynamics in a wheat–canola–wheat system

Author: Shome S.; Kopittke P.M.; Bell M.J.; Leite M.C.A.; Awale R.; Street M.; O'Brien B.; McLaren T.I.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.geoderma.2026.117957

Abstract: This study, published in Geoderma (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating chicken manure matches mineral p fertiliser in crop response and soil phosphorus dynamics in a wheat–canola–wheat system. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Shome S.; Kopittke P.M.; Bell M.J.; Leite M.C.A.; Awale R.; Street M.; O'Brien B.; McLaren T.I.) detail strategic

interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

29. Selenium and seaweed extracts exhibit synergistic actions in regulating antioxidant defense in rice under salt stress

Author: Hasanuzzaman M.; Sultana A.; Sinthi F.; Alam S.; Alam M.M.; Vara Prasad P.V.

Year: 2026

DOI / Link: https://doi.org/10.1186/s40538-026-00956-6

Abstract: This study, published in Chemical and Biological Technologies in Agriculture (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating selenium and seaweed extracts exhibit synergistic actions in regulating antioxidant defense in rice under salt stress. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hasanuzzaman M.; Sultana A.; Sinthi F.; Alam S.; Alam M.M.; Vara Prasad P.V.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

30. Determinants of happiness among pregnant women in Bangladesh

Author: Haq I.; Hossain M.I.; Rahman T.; Afrin T.; Ohi T.F.; Rejvi M.R.A.; Ahamed T.; Uddin M.S.G.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.actpsy.2026.107235

Abstract: This study, published in Acta Psychologica (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating determinants of happiness among pregnant women in bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Haq I.; Hossain M.I.; Rahman T.; Afrin T.; Ohi T.F.; Rejvi M.R.A.; Ahamed T.; Uddin M.S.G.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

31. Molecular Insights into NAC Transcription Factors: Key Regulators of Plant Response to Metal Stress

Author: Bouzroud S.; Fayezizadeh M.R.; Das S.; Sarraf M.; Saleem M.H.; Ercisli S.; Mirmazloum I.; Hasanuzzaman M.

Year: 2025

DOI / Link: https://doi.org/10.1007/s00344-025-11787-4

Abstract: This study, published in Journal of Plant Growth Regulation (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating molecular insights into nac transcription factors: key regulators of plant response to metal stress. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Bouzroud S.; Fayezizadeh M.R.; Das S.; Sarraf M.; Saleem M.H.; Ercisli S.; Mirmazloum I.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

32. Climate-smart practice: level of effectiveness and determinants of Sorjan farming adoption in coastal Bangladesh

Author: Kundu N.D.; Sujan M.H.K.; Sarker M.R.; Sultana M.; Uddin M.T.; Bhandari H.; Sarkar M.A.R.

Year: 2026

DOI / Link: https://doi.org/10.1007/s10668-024-05780-2

Abstract: This study, published in Environment, Development and Sustainability (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating climate-smart practice: level of effectiveness and determinants of sorjan farming adoption in coastal bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Kundu N.D.; Sujan M.H.K.; Sarker M.R.; Sultana M.; Uddin M.T.; Bhandari H.; Sarkar M.A.R.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

33. Climate-smart aquaculture practice: Changes in economic viability and efficiency of mud crab fattening in coastal Bangladesh

Author: Sujan M.H.K.; Sarkar M.A.R.; Sultana M.; Akber M.A.; McKenzie A.M.; Kazal M.M.H.; Islam I.; Aziz A.A.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.crm.2025.100726

Abstract: This study, published in Climate Risk Management (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating climate-smart

aquaculture practice: changes in economic viability and efficiency of mud crab fattening in coastal bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sujan M.H.K.; Sarkar M.A.R.; Sultana M.; Akber M.A.; McKenzie A.M.; Kazal M.M.H.; Islam I.; Aziz A.A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

34. Estimating soil organic carbon by integrating mid-infrared spectroscopy with explainable machine learning

Author: Khatun M.M.; Hasan M.A.; Chyon M.S.A.; Anzoom R.; Ahmed M.W.; Azam M.S.; Hasan Sazzad Iqbal S.M.; Rahim M.A.; Imtiaz M.N.; Ahmed M.T.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.rechem.2026.103386

Abstract: This study, published in Results in Chemistry (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating estimating soil organic carbon by integrating mid-infrared spectroscopy with explainable machine learning. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Khatun M.M.; Hasan M.A.; Chyon M.S.A.; Anzoom R.; Ahmed M.W.; Azam M.S.; Hasan Sazzad Iqbal S.M.; Rahim M.A.; Imtiaz M.N.; Ahmed M.T.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

35. Enhancing Salt Tolerance in Foxtail Millet Through Organic Inputs: A Soil–Plant–Microbe Interaction Perspective

Author: Irin I.J.; Hasanuzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.1155/ioa/9169279

Abstract: This study, published in International Journal of Agronomy (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating enhancing salt tolerance in foxtail millet through organic inputs: a soil–plant–microbe interaction perspective. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Irin I.J.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy

frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

36. Microalgal diversity, nutritional profiles, and applications in poultry nutrition: A comprehensive review

Author: Islam R.; Bhakta S.; Khatun A.; Feroz T.; Siddique M.P.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.aninu.2025.02.010

Abstract: This study, published in Animal Nutrition (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating microalgal diversity, nutritional profiles, and applications in poultry nutrition: a comprehensive review. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Islam R.; Bhakta S.; Khatun A.; Feroz T.; Siddique M.P.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

37. Domestic Lentil Production in Bangladesh Is More Advantageous Than Using Overseas Imports

Author: Sultana M.; Kazal M.M.H.; Jalil G.M.A.; Shetu J.F.; Sarkar M.A.R.; Sujan M.H.K.

Year: 2025

DOI / Link: https://doi.org/10.1002/fes3.70033

Abstract: This study, published in Food and Energy Security (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating domestic lentil production in bangladesh is more advantageous than using overseas imports. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sultana M.; Kazal M.M.H.; Jalil G.M.A.; Shetu J.F.; Sarkar M.A.R.; Sujan M.H.K.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

38. Revealing the mechanistic basis of differential salt-induced oxidative stress tolerance between Oryza sativa and Oryza coarctata

Author: Ishikawa T.; Chakraborty K.; Shabala L.; Islam T.; Yun P.; Zhou M.; Venkataraman G.; Min Y.; Sellamuthu G.; Hasanuzzaman M.; Chen Z.-H.; Shabala S.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.envexpbot.2026.106442

Abstract: This study, published in Environmental and Experimental Botany (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating revealing the mechanistic basis of differential salt-induced oxidative stress tolerance between oryza sativa and oryza coarctata. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Ishikawa T.; Chakraborty K.; Shabala L.; Islam T.; Yun P.; Zhou M.; Venkataraman G.; Min Y.; Sellamuthu G.; Hasanuzzaman M.; Chen Z.-H.; Shabala S.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

39. Phytoprotectants in action: Shielding plants from oxidative damage under temperature extremes and waterlogging stress

Author: Datta D.; Alam S.; Sinthi F.; Nahar K.; Hasanuzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.3329/jbas.v50i3.93933

Abstract: This study, published in Journal of Bangladesh Academy of Sciences (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating phytoprotectants in action: shielding plants from oxidative damage under temperature extremes and waterlogging stress. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Datta D.; Alam S.; Sinthi F.; Nahar K.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

40. Exploring small-holder farmers' adaptation strategies under soil salinity impacts in coastal areas of Bangladesh

Author: Ashik Ur Rahman M.; Zulfiqar F.; Rahman M.S.; Himanshu S.K.; Shrestha R.P.; Datta A.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.envdev.2024.101123

Abstract: This study, published in Environmental Development (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating exploring small-holder farmers' adaptation strategies under soil salinity impacts in coastal areas of bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to

enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Ashik Ur Rahman M.; Zulfiqar F.; Rahman M.S.; Himanshu S.K.; Shrestha R.P.; Datta A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

41. Potted garden pea grown in presence of pre-emergence herbicides: Impacts on soil enzymes and human health

Author: Parven A.; Meftaul I.M.; Venkateswarlu K.; Segovia A.C.; Megharaj M.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.jfca.2024.106985

Abstract: This study, published in Journal of Food Composition and Analysis (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating potted garden pea grown in presence of pre-emergence herbicides: impacts on soil enzymes and human health. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Parven A.; Meftaul I.M.; Venkateswarlu K.; Segovia A.C.; Megharaj M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

42. Imperative roles of auxin signaling in reprogramming of drought tolerance in plants

Author: Das A.; Pal S.; Hasanuzzaman M.; Adak M.K.

Year: 2026

DOI / Link: https://doi.org/10.1007/s00299-026-03726-8

Abstract: This study, published in Plant Cell Reports (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating imperative roles of auxin signaling in reprogramming of drought tolerance in plants. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Das A.; Pal S.; Hasanuzzaman M.; Adak M.K.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

43. Multi-Trait Index-Based Selection of Drought Tolerant Wheat: Physiological and Biochemical Profiling

Author: Mohi-Ud-Din M.; Hossain M.A.; Rohman M.M.; Uddin M.N.; Haque M.S.; Tahery M.H.; Hasanuzzaman M.

Year: 2025

DOI / Link: https://doi.org/10.3390/plants14010035

Abstract: This study, published in Plants (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating multi-trait index-based selection of drought tolerant wheat: physiological and biochemical profiling. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Mohi-Ud-Din M.; Hossain M.A.; Rohman M.M.; Uddin M.N.; Haque M.S.; Tahery M.H.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

44. Plants under toxic element stress: microRNA-mediated regulatory pathways and emerging perspectives

Author: Adak M.K.; Chakraborty N.; Das A.; Dey G.; Banerjee P.; Chen C.-Y.; Hasanuzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.1007/s11356-026-37636-9

Abstract: This study, published in Environmental Science and Pollution Research (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating plants under toxic element stress: microrna-mediated regulatory pathways and emerging perspectives. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Adak M.K.; Chakraborty N.; Das A.; Dey G.; Banerjee P.; Chen C.-Y.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

45. Framework for early assessment of food safety hazards in the transition to a more sustainable food system: three case studies in the Vietnamese Mekong Delta

Author: Safitri R.A.; Bouwman L.M.S.; Siegmund-Schultze M.; Nhan T.M.; Islam M.A.; van Asselt E.D.; van Dongen K.C.W.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.jafr.2025.102262

Abstract: This study, published in Journal of Agriculture and Food Research (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating framework for early assessment of food safety hazards in the transition to a more sustainable food system: three case studies in the vietnamese mekong delta. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Safitri R.A.; Bouwman L.M.S.; Siegmund-Schultze M.; Nhan T.M.; Islam M.A.; van Asselt E.D.; van Dongen K.C.W.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

46. Evaluation of the Effects of Two Plant Growth-Promoting Bacterial Strains (Bacillus tequilensis and Bacillus subtilis) on Tomato Growth, Physiology, and Nitrogen Utilization Efficiency at Various Nitrogen Levels

Author: Akter A.; Zuan A.T.K.; Kasim S.B.; Amin A.B.M.; Aziz Z.F.B.A.; Rahmatullah N.M.; Rahman M.E.; Sadeq B.M.; Nabayi A.; Chompa S.S.; Rahmatullah R.

Year: 2025

DOI / Link: https://www.scopus.com/pages/publications/105001931690?origin=resultslist

Abstract: This study, published in Malaysian Journal of Soil Science (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating evaluation of the effects of two plant growth-promoting bacterial strains (bacillus tequilensis and bacillus subtilis) on tomato growth, physiology, and nitrogen utilization efficiency at various nitrogen levels. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Akter A.; Zuan A.T.K.; Kasim S.B.; Amin A.B.M.; Aziz Z.F.B.A.; Rahmatullah N.M.; Rahman M.E.; Sadeq B.M.; Nabayi A.; Chompa S.S.; Rahmatullah R.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

47. Determinants of adoption of climate-smart agriculture (CSA) practices in mushroom farming in Bangladesh

Author: Haq I.; Rahman M.; Datta T.; Rakib M.H.; Nobrega D.

Year: 2026

DOI / Link: https://doi.org/10.1038/s41598-026-39761-4

Abstract: This study, published in Scientific Reports (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating determinants of adoption of climate-smart agriculture (csa) practices in mushroom farming in bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop

yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Haq I.; Rahman M.; Datta T.; Rakib M.H.; Nobrega D.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

48. Genetic variability and trait associations pertaining to agronomic, post-harvest, and nutritional characteristics of the parents and hybrids of tomato (Solanum lycopersicum L)

Author: Gain N.; Fatema M.; Rahman J.

Year: 2025

DOI / Link: https://doi.org/10.3329/jbas.v49i2.86721

Abstract: This study, published in Journal of Bangladesh Academy of Sciences (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating genetic variability and trait associations pertaining to agronomic, post-harvest, and nutritional characteristics of the parents and hybrids of tomato (solanum lycopersicum l). The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Gain N.; Fatema M.; Rahman J.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

49. Advancement in genome sequencing of wheat wild relatives

Author: Mushrat Z.; Salwa Z.; Zemin N.; Fame M.F.; Anis S.B.; Khan M.K.; Harun-Ur-Rashid M.; Pandey A.; Turin M.T.S.; Arifuzzaman M.

Year: 2025

DOI / Link: https://doi.org/10.1016/B978-0-443-22090-6.00003-5

Abstract: This study, published in Wheat Wild Relatives: Developing Abiotic Stress Tolerance under Climate Change (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating advancement in genome sequencing of wheat wild relatives. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Mushrat Z.; Salwa Z.; Zemin N.; Fame M.F.; Anis S.B.; Khan M.K.; Harun-Ur-Rashid M.; Pandey A.; Turin M.T.S.; Arifuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

50. Pesticide perceptions, practices, and Bt cotton adoption potential among Bangladeshi cotton farmers

Author: Sujan M.H.K.; Ahammad S.; Kazal M.M.H.; Sultana M.; Akhteruzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.cropro.2026.107548

Abstract: This study, published in Crop Protection (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating pesticide perceptions, practices, and bt cotton adoption potential among bangladeshi cotton farmers. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sujan M.H.K.; Ahammad S.; Kazal M.M.H.; Sultana M.; Akhteruzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

51. Pesticide handling practices, occupational risks, and health expenses among Bangladeshi smallholder vegetable farmers

Author: Hossain M.S.; Fahad S.; Sarker T.; Rabbany M.G.; Yeasmin S.; Roy R.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.jafr.2026.102727

Abstract: This study, published in Journal of Agriculture and Food Research (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating pesticide handling practices, occupational risks, and health expenses among bangladeshi smallholder vegetable farmers. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hossain M.S.; Fahad S.; Sarker T.; Rabbany M.G.; Yeasmin S.; Roy R.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

52. Mechanisms of waterlogging tolerance in plants

Author: Hussain M.A.; Jahan M.S.

Year: 2025

DOI / Link: https://doi.org/10.1016/B978-0-443-14139-3.00020-8

Abstract: This study, published in Role of Antioxidants in Abiotic Stress Management (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating mechanisms of waterlogging tolerance in plants. The research provides

comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hussain M.A.; Jahan M.S.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

53. Mushroom Farming: A Potential Tool for Nutritional Security and Income Generation in Bangladesh

Author: Poly N.; Marma L.; Afsana A.S.; Choudhury M.A.; Talucder M.S.A.; Maleque M.A.; Pane Y.S.; Noreen S.; Bin Mahbub S.U.; Alam F.; Abdullah M.; Khan A.U.

Year: 2026

DOI / Link: https://doi.org/10.4038/jas.v21i1.11194

Abstract: This study, published in Journal of Agricultural Sciences - Sri Lanka (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating mushroom farming: a potential tool for nutritional security and income generation in bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Poly N.; Marma L.; Afsana A.S.; Choudhury M.A.; Talucder M.S.A.; Maleque M.A.; Pane Y.S.; Noreen S.; Bin Mahbub S.U.; Alam F.; Abdullah M.; Khan A.U.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

54. Assessing resilience of surface water management schemes in Bangladesh: strategic insights for transformation

Author: Roy R.; Czaplicka K.; Abe S.

Year: 2025

DOI / Link: https://doi.org/10.2166/aqua.2025.044

Abstract: This study, published in Aqua Water Infrastructure, Ecosystems and Society (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating assessing resilience of surface water management schemes in bangladesh: strategic insights for transformation. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Roy R.; Czaplicka K.; Abe S.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

55. Combining Traditional Breeding with Molecular Techniques: An Integrative Approach

Author: Hasan Md.N.; Simi T.I.; Rahaman S.S.; Rahim Md.A.

Year: 2025

DOI / Link: https://doi.org/10.32604/phyton.2025.067633

Abstract: This study, published in Phyton-International Journal of Experimental Botany (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating combining traditional breeding with molecular techniques: an integrative approach. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hasan Md.N.; Simi T.I.; Rahaman S.S.; Rahim Md.A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

56. Resilience and Sustainability of SRI in Odisha: Adoption Dynamics and Farm-Level Outcomes

Author: Behura D.; Haldar S.; Munda P.C.; Pal A.; Roy R.

Year: 2026

DOI / Link: https://doi.org/10.1007/s40003-025-00925-9

Abstract: This study, published in Agricultural Research (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating resilience and sustainability of sri in odisha: adoption dynamics and farm-level outcomes. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Behura D.; Haldar S.; Munda P.C.; Pal A.; Roy R.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

57. Tomato Cultivation in Bangladesh: Insights into Pest Awareness and Disease Management

Author: Hossain M.E.; Rahman M.M.; Hossain M.S.; Akter A.; Hossain M.K.; Alam J.; Khan M.S.I.; Amin R.; Hossain S.

Year: 2025

DOI / Link: https://doi.org/10.17957/IJAB/15.2360

Abstract: This study, published in International Journal of Agriculture and Biology (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by

investigating tomato cultivation in bangladesh: insights into pest awareness and disease management. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hossain M.E.; Rahman M.M.; Hossain M.S.; Akter A.; Hossain M.K.; Alam J.; Khan M.S.I.; Amin R.; Hossain S.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

58. Fungi for Future Farming: Enhancing Nutrient Uptake and Stress Resilience in Sustainable Development Era

Author: Das K.; Sarker A.; Deepo D.M.; Aminuzzaman F.M.; Siddique A.B.; Nasif S.O.; Arafa R.A.

Year: 2026

DOI / Link: https://doi.org/10.32604/phyton.2026.079822

Abstract: This study, published in Phyton-International Journal of Experimental Botany (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating fungi for future farming: enhancing nutrient uptake and stress resilience in sustainable development era. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Das K.; Sarker A.; Deepo D.M.; Aminuzzaman F.M.; Siddique A.B.; Nasif S.O.; Arafa R.A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

59. Genome-wide association analysis locates FtAUR3 in Tartary buckwheat that contributes to enhance plant salt resistance

Author: Lu X.; Zuo Q.; Huda M.N.; Shi Y.; Li G.; Wang X.; Xiao Y.; Khurshid M.; Jahan T.; Dhami N.; Gauchan D.P.; Ali M.A.; Cheng J.; Meng Y.; Ruan J.; Zhou M.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.jia.2025.04.008

Abstract: This study, published in Journal of Integrative Agriculture (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating genome-wide association analysis locates ftaur3 in tartary buckwheat that contributes to enhance plant salt resistance. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Lu X.; Zuo Q.; Huda M.N.; Shi Y.; Li G.; Wang X.; Xiao Y.; Khurshid M.; Jahan T.; Dhami N.;

Gauchan D.P.; Ali M.A.; Cheng J.; Meng Y.; Ruan J.; Zhou M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

60. Evaluating farmers' satisfaction from high-yielding rice (Oryza sativa) variety cultivation in boro season: evidence from adaptive trials in Bangladesh

Author: Hassan M.M.; Habib M.A.; Nayak S.; Jewel Z.A.; Resmi S.I.; Hasan M.

Year: 2025

DOI / Link: https://doi.org/10.1007/s44447-025-00047-2

Abstract: This study, published in Journal of the Saudi Society of Agricultural Sciences (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating evaluating farmers' satisfaction from high-yielding rice (oryza sativa) variety cultivation in boro season: evidence from adaptive trials in bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hassan M.M.; Habib M.A.; Nayak S.; Jewel Z.A.; Resmi S.I.; Hasan M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

61. Agro-Morphological and Cytogenetic Characterization of Hibiscus Genetic Resources: Implications for Germplasm Conservation and Interspecific Breeding

Author: Sultan Y.; Deepo D.M.; Lim K.-B.; Norkevičienė E.

Year: 2026

DOI / Link: https://doi.org/10.3390/plants15111633

Abstract: This study, published in Plants (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating agro-morphological and cytogenetic characterization of hibiscus genetic resources: implications for germplasm conservation and interspecific breeding. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sultan Y.; Deepo D.M.; Lim K.-B.; Norkevičienė E.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

62. Impact of climate change on Boro rice production in Bangladesh: Evidence from time series modeling

Author: Shahrier R.; Hasan M.N.; Ankita S.Y.; Tasnim I.; Rahman K.T.

Year: 2025

DOI / Link: https://doi.org/10.1371/journal.pone.0328699

Abstract: This study, published in PLOS One (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating impact of climate change on boro rice production in bangladesh: evidence from time series modeling. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Shahrier R.; Hasan M.N.; Ankita S.Y.; Tasnim I.; Rahman K.T.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

63. Herbicides in modern sustainable agriculture: environmental fate, ecological implications, and human health concerns

Author: Parven A.; Meftaul I.M.; Venkateswarlu K.; Megharaj M.

Year: 2025

DOI / Link: https://doi.org/10.1007/s13762-024-05818-y

Abstract: This study, published in International Journal of Environmental Science and Technology (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating herbicides in modern sustainable agriculture: environmental fate, ecological implications, and human health concerns. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Parven A.; Meftaul I.M.; Venkateswarlu K.; Megharaj M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

64. River Waste to Goldmine: A Tale of Floating Agriculture in Vulnerable Southern Regions of Bangladesh

Author: Sarker M.R.; Kundu N.D.; Sujan M.H.K.; Salman M.; McKenzie A.M.; Islam M.M.; Rahman M.A.; Uddin M.T.; Bhandari H.; Sarkar M.A.R.

Year: 2025

DOI / Link: https://doi.org/10.1002/fes3.70062

Abstract: This study, published in Food and Energy Security (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating river waste to goldmine: a tale of floating agriculture in vulnerable southern regions of bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance

crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sarker M.R.; Kundu N.D.; Sujan M.H.K.; Salman M.; McKenzie A.M.; Islam M.M.; Rahman M.A.; Uddin M.T.; Bhandari H.; Sarkar M.A.R.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

65. Integration of Biochar into Soil Unravels Protective Mechanisms Against Plastic-Induced Stress in Lens culinaris by Modulating Physiological Traits, Antioxidant Defense, and Methylglyoxal Detoxification Systems

Author: Kapoor R.T.; Hasanuzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.3390/plants15030470

Abstract: This study, published in Plants (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating integration of biochar into soil unravels protective mechanisms against plastic-induced stress in lens culinaris by modulating physiological traits, antioxidant defense, and methylglyoxal detoxification systems. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Kapoor R.T.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

66. Navigating the productivity-adaptation-mitigation triangle in climate-smart agriculture for rice-based ecosystems

Author: Das Pantha S.; Mimi T.T.; Roy R.; Talukder B.

Year: 2026

DOI / Link: https://doi.org/10.1002/agj2.70425

Abstract: This study, published in Agronomy Journal (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating navigating the productivity-adaptation-mitigation triangle in climate-smart agriculture for rice-based ecosystems. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Das Pantha S.; Mimi T.T.; Roy R.; Talukder B.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

67. Salmon superfood: Nourishing the body with oceanic goodness

Author: Mohibbullah M.; Mithu M.A.; Haq M.; Newaz A.W.

Year: 2025

DOI / Link: https://doi.org/10.1016/B978-0-443-33488-7.00011-4

Abstract: This study, published in Superfoods: Exploring Nutrition and Health Benefits (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating salmon superfood: nourishing the body with oceanic goodness. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Mohibbullah M.; Mithu M.A.; Haq M.; Newaz A.W.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

68. Unlocking Food Security in Flood-Prone Bangladesh: The Power of Women-Led Climate-Smart Agriculture

Author: Akter A.; Beg T.H.; Xu H.

Year: 2026

DOI / Link: https://doi.org/10.1002/fes3.70327

Abstract: This study, published in Food and Energy Security (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating unlocking food security in flood-prone bangladesh: the power of women-led climate-smart agriculture. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Akter A.; Beg T.H.; Xu H.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

69. Physiological, biochemical and morphological responses of diverse tomato genotypes to early drought stress

Author: Choudhury S.; Hossain S.; Islam N.; Sarker R.; Hussain M.A.; Safhi F.A.; Jalal A.S.; Al Aboud N.M.; Alshaharni M.O.; Hossain Md.S.

Year: 2026

DOI / Link: https://doi.org/10.4067/s0718-58392026000100102

Abstract: This study, published in Chilean Journal of Agricultural Research (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating physiological, biochemical and morphological responses of diverse tomato genotypes to early

drought stress. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Choudhury S.; Hossain S.; Islam N.; Sarker R.; Hussain M.A.; Safhi F.A.; Jalal A.S.; Al Aboud N.M.; Alshaharni M.O.; Hossain Md.S.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

70. Farmers' knowledge, attitudes, and practices regarding lumpy skin disease in Northern Bangladesh

Author: Sama S.P.; Bhuiyan M.I.H.; Bhandari P.; Chalise R.; Midul R.H.; Ahmed M.M.; Shihab M.K.M.; Nirob A.I.; Hossain D.; Ahmed M.J.

Year: 2026

DOI / Link: https://doi.org/10.1186/s12917-026-05555-z

Abstract: This study, published in BMC Veterinary Research (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating farmers' knowledge, attitudes, and practices regarding lumpy skin disease in northern bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sama S.P.; Bhuiyan M.I.H.; Bhandari P.; Chalise R.; Midul R.H.; Ahmed M.M.; Shihab M.K.M.; Nirob A.I.; Hossain D.; Ahmed M.J.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

71. Leveraging Machine Learning to Predict Potato Shelf Life: A Comprehensive Analysis in an Evaporative Cooling Structure

Author: Jubayer M.F.; Niloy S.; Sarker M.A.R.; Samad M.A.; Meftaul I.M.

Year: 2025

DOI / Link: https://doi.org/10.1007/s11540-025-09928-z

Abstract: This study, published in Potato Research (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating leveraging machine learning to predict potato shelf life: a comprehensive analysis in an evaporative cooling structure. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Jubayer M.F.; Niloy S.; Sarker M.A.R.; Samad M.A.; Meftaul I.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

72. Evaluation of Bio-Rational Insecticides for Controlling Hemipteran Sucking Pests and Their Impact on Natural Enemies in Tomato (Lycopersicon esculentum Mill.) Cultivation at Sylhet Region in Bangladesh

Author: Choudhury M.A.R.; Maleque M.A.; Alam M.K.; Faruk M.O.; Abdullah F.; Marma L.; Sultana M.P.; Islam M.S.; Tarapder S.A.; Khan A.U.

Year: 2026

DOI / Link: https://doi.org/10.4038/jas.v21i2.11573

Abstract: This study, published in Journal of Agricultural Sciences - Sri Lanka (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating evaluation of bio-rational insecticides for controlling hemipteran sucking pests and their impact on natural enemies in tomato (lycopersicon esculentum mill.) cultivation at sylhet region in bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Choudhury M.A.R.; Maleque M.A.; Alam M.K.; Faruk M.O.; Abdullah F.; Marma L.; Sultana M.P.; Islam M.S.; Tarapder S.A.; Khan A.U.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

73. Water at the Crossroads: Challenges and Opportunities for SDG Integration in Bangladesh

Author: Nasrin R.; Ali M.M.; Ahmed A.; Rahman A.

Year: 2026

DOI / Link: https://doi.org/10.1007/978-3-032-18708-6_78

Abstract: This study, published in Lecture Notes in Civil Engineering (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating water at the crossroads: challenges and opportunities for sdg integration in bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Nasrin R.; Ali M.M.; Ahmed A.; Rahman A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

74. Beyond the outfall: a systems thinking review of industrial water pollution impacts on agricultural systems

Author: Pantha S.D.; Roy R.; Mimi T.T.

Year: 2026

DOI / Link: https://doi.org/10.2166/aqua.2026.077

Abstract: This study, published in Aqua Water Infrastructure, Ecosystems and Society (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating beyond the outfall: a systems thinking review of industrial water pollution impacts on agricultural systems. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Pantha S.D.; Roy R.; Mimi T.T.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

75. Eco-efficient synergy of vermicompost and biochar in coir-based substrate enhances cherry tomato performance under urban rooftop garden conditions

Author: ISLAM M.M.; MAHMUD J.A.; MAHELI S.A.; NIZAM R.; PARVIN S.; ISHMAM M.R.I.; ARA J.; DAS N.; HASANUZZAMAN M.

Year: 2025

DOI / Link: https://doi.org/10.15835/nbha53414878

Abstract: This study, published in Notulae Botanicae Horti Agrobotanici Cluj-Napoca (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating eco-efficient synergy of vermicompost and biochar in coir-based substrate enhances cherry tomato performance under urban rooftop garden conditions. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (ISLAM M.M.; MAHMUD J.A.; MAHELI S.A.; NIZAM R.; PARVIN S.; ISHMAM M.R.I.; ARA J.; DAS N.; HASANUZZAMAN M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

76. Gene Bank: Conservation of Genetic Resources in the Genomic Era

Author: Rahman M.S.; Rahman M.Z.; Gain N.; Nesa M.M.; Islam M.Z.; Deepo D.M.; Rahman J.

Year: 2026

DOI / Link: https://doi.org/10.1007/978-3-032-02605-7_8

Abstract: This study, published in Sustainable Landscape Planning and Natural Resources Management (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating gene bank: conservation of genetic resources in the genomic era. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field

trials, laboratory diagnostics, and analytical modeling, the authors (Rahman M.S.; Rahman M.Z.; Gain N.; Nesa M.M.; Islam M.Z.; Deepo D.M.; Rahman J.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

77. Animal Selection and Management Strategies for Meat Quality and Sustainability

Author: Islam S.M.S.; Islam S.; Rahman M.; Akter N.; Noman A.A.; Shihab M.P.R.; Rahman A.; Hossain D.; Ahmed M.J.

Year: 2026

DOI / Link: https://doi.org/10.1201/9781003689560-7

Abstract: This study, published in Advances in Sustainable Meat Technology: Engineering, Quality, and Safety (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating animal selection and management strategies for meat quality and sustainability. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Islam S.M.S.; Islam S.; Rahman M.; Akter N.; Noman A.A.; Shihab M.P.R.; Rahman A.; Hossain D.; Ahmed M.J.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

78. Harnessing Rice Combine Harvester Adoption for Sustainable Agriculture in the Haor (Wetland) Ecosystem of Bangladesh

Author: Sujan M.H.K.; Sarker M.R.; Sarkar M.A.R.; Sultana M.; Rahman M.S.; Ahammad S.; Khan M.

Year: 2025

DOI / Link: https://doi.org/10.1111/1467-8489.70055

Abstract: This study, published in Australian Journal of Agricultural and Resource Economics (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating harnessing rice combine harvester adoption for sustainable agriculture in the haor (wetland) ecosystem of bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sujan M.H.K.; Sarker M.R.; Sarkar M.A.R.; Sultana M.; Rahman M.S.; Ahammad S.; Khan M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

79. Time-Frequency Analysis Reveals That Seaweed Farming Enhances Phytoplankton Resilience Under ENSO Events

Author: Huang R.; He J.; Wu Z.; Christakos G.; Sultana S.; Zhu Y.; Li D.; Duarte C.M.; Wu J.

Year: 2025

DOI / Link: https://doi.org/10.1029/2024JC022289

Abstract: This study, published in Journal of Geophysical Research: Oceans (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating time-frequency analysis reveals that seaweed farming enhances phytoplankton resilience under enso events. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Huang R.; He J.; Wu Z.; Christakos G.; Sultana S.; Zhu Y.; Li D.; Duarte C.M.; Wu J.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

80. Pulse farmers' adaptation to climate-induced variability in coastal Bangladesh: Perceptions, strategies, and drivers

Author: Kundu N.D.; Uddin M.T.; Sarker M.R.; Sujan M.H.K.; Noman M.A.A.; Islam M.M.; Sarkar M.A.R.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.cliser.2026.100646

Abstract: This study, published in Climate Services (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating pulse farmers' adaptation to climate-induced variability in coastal bangladesh: perceptions, strategies, and drivers. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Kundu N.D.; Uddin M.T.; Sarker M.R.; Sujan M.H.K.; Noman M.A.A.; Islam M.M.; Sarkar M.A.R.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

81. Harnessing double-stranded RNA (dsRNA): a sustainable approach to pest management

Author: Siddique A.B.; Rahman M.Z.; Gain N.; Rahman M.S.; Rahman J.

Year: 2025

DOI / Link: https://doi.org/10.1007/s12298-025-01564-8

Abstract: This study, published in Physiology and Molecular Biology of Plants (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating harnessing double-stranded rna (dsrna): a sustainable approach to pest management. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Siddique A.B.; Rahman M.Z.; Gain N.; Rahman M.S.; Rahman J.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

82. Magnesium-mediated stress adaptation in plants: from physio-biochemical insights to climate-resilient agriculture

Author: Sarraf M.; Bansal R.; Shackira A.M.; Yadav V.; Zarbakhsh S.; Roychowdhury R.; Chauhan D.K.; Mousavi H.; Hasanuzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.3389/fpls.2026.1715501

Abstract: This study, published in Frontiers in Plant Science (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating magnesium-mediated stress adaptation in plants: from physio-biochemical insights to climate-resilient agriculture. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sarraf M.; Bansal R.; Shackira A.M.; Yadav V.; Zarbakhsh S.; Roychowdhury R.; Chauhan D.K.; Mousavi H.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

83. Stress-Responsive Legume Microbiomes: Metagenomic Approaches for Functional and Applied Insights

Author: Gain N.; Rahman M.Z.; Tonton S.B.; Rahman M.S.; Rahman J.

Year: 2026

DOI / Link: https://doi.org/10.1201/9781003733324-10

Abstract: This study, published in Metagenomics for Legume Crop Improvement (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating stress-responsive legume microbiomes: metagenomic approaches for functional and applied insights. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Gain N.; Rahman M.Z.; Tonton S.B.; Rahman M.S.; Rahman J.) detail strategic interventions, resource

management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

84. What does matter most for farmers' choice of marketing channels? Evidence from coastal Bangladesh

Author: Alam M.M.; Shaba S.A.; Ashik-Uz-zaman S.M.

Year: 2025

DOI / Link: https://doi.org/10.5304/jafscd.2025.142.032

Abstract: This study, published in Journal of Agriculture, Food Systems, and Community Development (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating what does matter most for farmers' choice of marketing channels? evidence from coastal bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Alam M.M.; Shaba S.A.; Ashik-Uz-zaman S.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

85. Environmental and captivity-driven carapace shape variation in the giant freshwater prawn (Macrobrachium rosenbergii): implications for aquaculture and broodstock management

Author: Jahan I.; Ferdous A.; Shakil M.A.H.; Rahman M.Y.; Mamun A.-A.; Ahammad A.K.S.; Rahman M.M.; Asaduzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.1007/s10499-026-02619-7

Abstract: This study, published in Aquaculture International (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating environmental and captivity-driven carapace shape variation in the giant freshwater prawn (macrobrachium rosenbergii): implications for aquaculture and broodstock management. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Jahan I.; Ferdous A.; Shakil M.A.H.; Rahman M.Y.; Mamun A.-A.; Ahammad A.K.S.; Rahman M.M.; Asaduzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

86. Proteomics in Allopolyploid Crops: Stress Resilience, Challenges and Prospects

Author: Halder T.; Bhoite R.; Islam S.; Yan G.; Siddiqui M.N.; Kayess M.O.; Siddique K.H.M.

Year: 2025

DOI / Link: https://doi.org/10.3390/proteomes13040060

Abstract: This study, published in Proteomes (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating proteomics in allopolyploid crops: stress resilience, challenges and prospects. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Halder T.; Bhoite R.; Islam S.; Yan G.; Siddiqui M.N.; Kayess M.O.; Siddique K.H.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

87. Stakeholder and expert opinion of solar radiation modification in South Asia: insights into perceptions, geopolitical, and governance concerns in Bangladesh

Author: Rahman M.S.; Sarker F.; Kabir M.H.; Baum C.M.; Merk C.; Roconuzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.1088/2515-7620/ae5473

Abstract: This study, published in Environmental Research Communications (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating stakeholder and expert opinion of solar radiation modification in south asia: insights into perceptions, geopolitical, and governance concerns in bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Rahman M.S.; Sarker F.; Kabir M.H.; Baum C.M.; Merk C.; Roconuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

88. Adaptation strategies to waterlogging among coastal farmers in Bangladesh: Practices, determinants, and implications for resilient agriculture

Author: Akter R.; Ullah Mazumder M.S.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.cliser.2025.100598

Abstract: This study, published in Climate Services (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating adaptation strategies to waterlogging among coastal farmers in bangladesh: practices, determinants, and implications for resilient agriculture. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems.

Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Akter R.; Ullah Mazumder M.S.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

89. Corrigendum to "Thermochemical and physical characterization of agricultural biomass for sustainable energy in Bangladesh" (Energy Reports (2024) 12 (5758–5768), (S2352484724007789), (10.1016/j.egyr.2024.11.059))

Author: Kamruzzaman M.; Bhattacharjya D.K.; Alam E.; Karim M.R.; Nath B.; Hattawi K.S.A.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.egyr.2025.01.055

Abstract: This study, published in Energy Reports (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating corrigendum to "thermochemical and physical characterization of agricultural biomass for sustainable energy in bangladesh" (energy reports (2024) 12 (5758–5768), (s2352484724007789), (10.1016/j.egyr.2024.11.059)). The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Kamruzzaman M.; Bhattacharjya D.K.; Alam E.; Karim M.R.; Nath B.; Hattawi K.S.A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

90. Groundwater under the lens: a remote sensing exploration of storage patterns and trends in Bangladesh

Author: Rahman M.; Niloy S.; Izlal S.; Promi T.R.; Islam M.A.; Toma N.I.; Gaber A.; Hossain A.

Year: 2025

DOI / Link: https://doi.org/10.2166/wcc.2025.012

Abstract: This study, published in Journal of Water and Climate Change (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating groundwater under the lens: a remote sensing exploration of storage patterns and trends in bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Rahman M.; Niloy S.; Izlal S.; Promi T.R.; Islam M.A.; Toma N.I.; Gaber A.; Hossain A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

91. Feeding selectivity and gametogenic cycle of Crassostrea madrasensis in relation to seasonal plankton and environmental variability in the southeast coast of the Bay of Bengal, Bangladesh

Author: Hossain K.Z.; Jahan I.; Hossain M.N.; Ferdous A.; Ali M.R.; Rahman M.M.; Khan M.S.R.; Asaduzzaman M.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.seares.2025.102646

Abstract: This study, published in Journal of Sea Research (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating feeding selectivity and gametogenic cycle of crassostrea madrasensis in relation to seasonal plankton and environmental variability in the southeast coast of the bay of bengal, bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hossain K.Z.; Jahan I.; Hossain M.N.; Ferdous A.; Ali M.R.; Rahman M.M.; Khan M.S.R.; Asaduzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

92. Development of a Silicon Efficiency Index Integrated with GGE Biplot Analysis for Identifying Salinity-tolerant Wheat Genotypes

Author: Ahmed S.R.; Iram I.; Ali Z.; Haleem A.; Khan J.; Ghaffari H.; Hasanuzzaman M.; Maqsood M.F.; Tan D.K.Y.; Brestic M.; Skalicky M.

Year: 2026

DOI / Link: https://doi.org/10.1007/s12633-026-03701-8

Abstract: This study, published in Silicon (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating development of a silicon efficiency index integrated with gge biplot analysis for identifying salinity-tolerant wheat genotypes. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Ahmed S.R.; Iram I.; Ali Z.; Haleem A.; Khan J.; Ghaffari H.; Hasanuzzaman M.; Maqsood M.F.; Tan D.K.Y.; Brestic M.; Skalicky M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

93. GENETIC DIVERSITY OF EXOTIC WHITE MAIZE GENOTYPES THROUGH PRINCIPAL COMPONENT AND CLUSTER ANALYSIS FOR YIELD-RELATED TRAITS

Author: Roy G.; Shompa B.N.; Emu I.A.; Gain N.; Rahman J.

Year: 2026

DOI / Link: https://doi.org/10.3329/bjb.v55i3.93863

Abstract: This study, published in Bangladesh Journal of Botany (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating genetic diversity of exotic white maize genotypes through principal component and cluster analysis for yield-related traits. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Roy G.; Shompa B.N.; Emu I.A.; Gain N.; Rahman J.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

94. Plant secondary metabolites against biotic stresses for sustainable crop protection

Author: Jahan T.; Huda M.N.; Zhang K.; He Y.; Lai D.; Dhami N.; Quinet M.; Ali M.A.; Kreft I.; Woo S.-H.; Georgiev M.I.; Fernie A.R.; Zhou M.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.biotechadv.2025.108520

Abstract: This study, published in Biotechnology Advances (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating plant secondary metabolites against biotic stresses for sustainable crop protection. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Jahan T.; Huda M.N.; Zhang K.; He Y.; Lai D.; Dhami N.; Quinet M.; Ali M.A.; Kreft I.; Woo S.-H.; Georgiev M.I.; Fernie A.R.; Zhou M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

95. Crop and farming-system diversification strategies for coastal agricultural resilience: a systematic review through DPSIR lens

Author: Sujan M.H.K.; Kotir J.H.; Abdul Aziz A.; Akber M.A.

Year: 2026

DOI / Link: https://doi.org/10.1007/s10113-026-02709-5

Abstract: This study, published in Regional Environmental Change (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating crop and farming-system diversification strategies for coastal agricultural resilience: a systematic

review through dpsir lens. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sujan M.H.K.; Kotir J.H.; Abdul Aziz A.; Akber M.A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

96. Correction: Learning from nature: Photosynthetic traits conferring superior salt tolerance in wild rice Oryza coarctata (Philosophical Transactions of the Royal Society B: Biological Sciences (2025) 380 (20240242) DOI: 10.1098/rstb.2024.0242)

Author: Yun P.; Shahzad B.; Hasanuzzaman Md.; Islam T.; Shabala L.; Zhou M.; Venkataraman G.; Chen Z.-H.; Shabala S.

Year: 2025

DOI / Link: https://doi.org/10.1098/rstb.2025.0235

Abstract: This study, published in Philosophical Transactions of the Royal Society B: Biological Sciences (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating correction: learning from nature: photosynthetic traits conferring superior salt tolerance in wild rice oryza coarctata (philosophical transactions of the royal society b: biological sciences (2025) 380 (20240242) doi: 10.1098/rstb.2024.0242). The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Yun P.; Shahzad B.; Hasanuzzaman Md.; Islam T.; Shabala L.; Zhou M.; Venkataraman G.; Chen Z.-H.; Shabala S.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

97. Surface water quality and heavy metal assessment in a tropical coastal zone for identifying favorable crop production seasons

Author: Roy T.K.; Joy M.N.H.; Shahriar S.; Hossen S.; Sheikh S.; Islam M.S.; Ismail Z.; Idris A.M.

Year: 2026

DOI / Link: https://doi.org/10.1038/s41598-026-44051-0

Abstract: This study, published in Scientific Reports (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating surface water quality and heavy metal assessment in a tropical coastal zone for identifying favorable crop production seasons. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Roy T.K.; Joy

M.N.H.; Shahriar S.; Hossen S.; Sheikh S.; Islam M.S.; Ismail Z.; Idris A.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

98. Risk and vulnerability assessment of coastal social–ecological systems in Bangladesh with strategic pathways for stewardship

Author: Roy R.; Chakraborty L.; Talukder B.; Al Hussain M.M.; Haldar S.; Sarkar M.

Year: 2026

DOI / Link: https://doi.org/10.1007/s13280-026-02443-6

Abstract: This study, published in Ambio (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating risk and vulnerability assessment of coastal social–ecological systems in bangladesh with strategic pathways for stewardship. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Roy R.; Chakraborty L.; Talukder B.; Al Hussain M.M.; Haldar S.; Sarkar M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

99. Climate-Resilient Technologies for Smart Agriculture

Author: Kader M.A.; Jewel A.; Mishra A.; Mojid M.A.

Year: 2025

DOI / Link: https://doi.org/10.1007/978-3-032-00190-0_17

Abstract: This study, published in Advances in Global Change Research (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating climate-resilient technologies for smart agriculture. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Kader M.A.; Jewel A.; Mishra A.; Mojid M.A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

100. Nexus of women's participation in smallholder financial inclusion programs and economic efficiency: implications for poverty alleviation

Author: Wang S.; Mwalupaso G.E.; Akter A.

Year: 2025

DOI / Link: https://doi.org/10.3389/fsufs.2025.1613678

Abstract: This study, published in Frontiers in Sustainable Food Systems (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating nexus of women's participation in smallholder financial inclusion programs and economic efficiency: implications for poverty alleviation. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Wang S.; Mwalupaso G.E.; Akter A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

101. Coping with climate change: an analysis of farmers' adoption behavior and its impact on production efficiency

Author: Zhu N.; Yang J.; Rahman A.; Sarker M.N.I.; Afrin S.; Afroj M.; Islam M.D.I.; Firdaus R.B.R.

Year: 2025

DOI / Link: https://doi.org/10.1007/s10668-023-04445-w

Abstract: This study, published in Environment, Development and Sustainability (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating coping with climate change: an analysis of farmers' adoption behavior and its impact on production efficiency. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Zhu N.; Yang J.; Rahman A.; Sarker M.N.I.; Afrin S.; Afroj M.; Islam M.D.I.; Firdaus R.B.R.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

102. Learning from nature: Photosynthetic traits conferring superior salt tolerance in wild rice Oryza coarctata

Author: Yun P.; Shahzad B.; Hasanuzzaman M.; Islam T.; Shabala L.; Zhou M.; Venkataraman G.; Chen Z.-H.; Shabala S.

Year: 2025

DOI / Link: https://doi.org/10.1098/rstb.2024.0242

Abstract: This study, published in Philosophical Transactions of the Royal Society B: Biological Sciences (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating learning from nature: photosynthetic traits conferring superior salt tolerance in wild rice oryza coarctata. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable

farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Yun P.; Shahzad B.; Hasanuzzaman M.; Islam T.; Shabala L.; Zhou M.; Venkataraman G.; Chen Z.-H.; Shabala S.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

103. Temporal patterns and management effectiveness of insect pests and diseases in Boro rice cultivation: A 5-year analysis (2019–2023)

Author: Akter K.; Mannan M.A.; Amin M.; Hossen S.; Tasnim M.; Khan M.M.R.; Akter S.; Ahmmed A.N.F.

Year: 2026

DOI / Link: https://doi.org/10.1002/uar2.70060

Abstract: This study, published in Urban Agriculture and Regional Food Systems (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating temporal patterns and management effectiveness of insect pests and diseases in boro rice cultivation: a 5-year analysis (2019–2023). The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Akter K.; Mannan M.A.; Amin M.; Hossen S.; Tasnim M.; Khan M.M.R.; Akter S.; Ahmmed A.N.F.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

104. Comparative analysis of explainable machine learning integrated with hyperspectral imaging for early prediction of wheat yield

Author: Islam M.Z.; Khatun M.M.; Chyon M.S.A.; Anzoom R.; Imtiaz M.N.; Iqbal S.M.H.S.; Azam M.S.; Rahim M.A.; Ahmed M.W.; Ahmed M.T.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.talanta.2026.129955

Abstract: This study, published in Talanta (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating comparative analysis of explainable machine learning integrated with hyperspectral imaging for early prediction of wheat yield. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Islam M.Z.; Khatun M.M.; Chyon M.S.A.; Anzoom R.; Imtiaz M.N.; Iqbal S.M.H.S.; Azam M.S.; Rahim M.A.; Ahmed M.W.; Ahmed M.T.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

105. Microbial Degradation of Herbicide Residues in Australian Soil: An Overview of Mechanistic Insights and Recent Advancements

Author: Chowdhury I.F.; Doran G.S.; Stodart B.J.; Chen C.; Wu H.

Year: 2025

DOI / Link: https://doi.org/10.3390/toxics13110949

Abstract: This study, published in Toxics (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating microbial degradation of herbicide residues in australian soil: an overview of mechanistic insights and recent advancements. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Chowdhury I.F.; Doran G.S.; Stodart B.J.; Chen C.; Wu H.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

106. Potential of Seaweed to Improve the Quality and Shelf Life of Fish and Fishery Products

Author: Rodela A.B.; Rasul M.G.; Kabir I.E.; Hasan J.; Yuan C.; Majumdar B.C.

Year: 2026

DOI / Link: https://doi.org/10.1002/fsh3.70120

Abstract: This study, published in Food Safety and Health (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating potential of seaweed to improve the quality and shelf life of fish and fishery products. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Rodela A.B.; Rasul M.G.; Kabir I.E.; Hasan J.; Yuan C.; Majumdar B.C.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

107. Comparative analysis of weed management techniques in taro (Colocasia esculenta (L.) Schott)

Author: Paul S.; Rahman Md.H.; Tamanna M.; Halder D.; Kobir Md.S.; Munshi M.H.; Hajong P.; Anwar Md.B.

Year: 2025

DOI / Link: https://doi.org/10.14719/pst.4750

Abstract: This study, published in Plant Science Today (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating comparative analysis of

weed management techniques in taro (colocasia esculenta (l.) schott). The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Paul S.; Rahman Md.H.; Tamanna M.; Halder D.; Kobir Md.S.; Munshi M.H.; Hajong P.; Anwar Md.B.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

108. Is it economically rational to switch to short-duration rice varieties? Evidence from climate vulnerable freshwater wetland areas

Author: Rahman M.S.; Acharjee D.C.

Year: 2026

DOI / Link: https://doi.org/10.1080/00036846.2026.2646321

Abstract: This study, published in Applied Economics (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating is it economically rational to switch to short-duration rice varieties? evidence from climate vulnerable freshwater wetland areas. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Rahman M.S.; Acharjee D.C.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

109. Community Perceptions and Economic Drivers of Hilsa Fishery Conservation in Riverbank Villages of Bangladesh

Author: Hossain M.A.; Monir M.; Selim S.; Azad F.; Rana M.M.; Ahmad B.; Hasan M.R.

Year: 2026

DOI / Link: https://doi.org/10.1002/aff2.70222

Abstract: This study, published in Aquaculture, Fish and Fisheries (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating community perceptions and economic drivers of hilsa fishery conservation in riverbank villages of bangladesh. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hossain M.A.; Monir M.; Selim S.; Azad F.; Rana M.M.; Ahmad B.; Hasan M.R.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

110. Eating Choices and Planet's Sustainability; How Far Consumers Are Willing to Pay for Sustainable Food Consumption in Middle-Income Countries?

Author: Hoque F.; Akter A.

Year: 2026

DOI / Link: https://doi.org/10.22059/ier.2024.370832.1007912

Abstract: This study, published in Iranian Economic Review (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating eating choices and planet's sustainability; how far consumers are willing to pay for sustainable food consumption in middle-income countries?. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hoque F.; Akter A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

111. Environmental Fate, Transformation, and Interactions of Agrochemicals and Micro-Nano Plastics in Agricultural Ecosystem

Author: Hasan M.M.; Hossain M.S.; Islam M.Z.; Pantha S.D.; Ahmed M.; Hridi R.A.; Hasanuzzaman M.; Chowdhury I.F.

Year: 2026

DOI / Link: https://doi.org/10.3390/appliedchem6020028

Abstract: This study, published in AppliedChem (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating environmental fate, transformation, and interactions of agrochemicals and micro-nano plastics in agricultural ecosystem. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hasan M.M.; Hossain M.S.; Islam M.Z.; Pantha S.D.; Ahmed M.; Hridi R.A.; Hasanuzzaman M.; Chowdhury I.F.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

112. Exploring Plant Stress Tolerance: A Metabolomics Approach

Author: Choudhury S.; Moulick D.; Hasanuzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.1201/9781779641731

Abstract: This study, published in Exploring Plant Stress Tolerance: A Metabolomics Approach (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger)

by investigating exploring plant stress tolerance: a metabolomics approach. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Choudhury S.; Moulick D.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

113. Understanding rice farmers' fertilizer application behavior to advance sustainable agricultural practices in Bangladesh: insights from the extended KAP model

Author: Sujan M.H.K.; Jiao Y.; Akber M.A.; Sarkar M.A.R.; McKenzie A.M.; Rabin M.H.; Sultana M.; Aziz A.A.

Year: 2026

DOI / Link: https://doi.org/10.1038/s41598-026-52897-7

Abstract: This study, published in Scientific Reports (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating understanding rice farmers' fertilizer application behavior to advance sustainable agricultural practices in bangladesh: insights from the extended kap model. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Sujan M.H.K.; Jiao Y.; Akber M.A.; Sarkar M.A.R.; McKenzie A.M.; Rabin M.H.; Sultana M.; Aziz A.A.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

114. Silicon nanoparticles mitigate cadmium toxicity in rice by modulating root development and exudate dynamics

Author: Hosain M.T.; Sarkar M.I.U.; Mia S.; Rahman M.M.; Naidu R.; Rahman M.M.

Year: 2026

DOI / Link: https://doi.org/10.1016/j.envexpbot.2026.106318

Abstract: This study, published in Environmental and Experimental Botany (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating silicon nanoparticles mitigate cadmium toxicity in rice by modulating root development and exudate dynamics. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Hosain M.T.; Sarkar M.I.U.; Mia S.; Rahman M.M.; Naidu R.; Rahman M.M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize

agricultural productivity, safeguard environmental integrity, and support rural farming communities.

115. Transcription factors – Insights into abiotic and biotic stress resilience and crop improvement

Author: Bhoite R.; Onyemaobi O.; Halder T.; Shankar M.; Sharma D.

Year: 2025

DOI / Link: https://doi.org/10.1016/j.cpb.2025.100434

Abstract: This study, published in Current Plant Biology (2025), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating transcription factors – insights into abiotic and biotic stress resilience and crop improvement. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Bhoite R.; Onyemaobi O.; Halder T.; Shankar M.; Sharma D.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.

116. Reactive Oxygen Species in Crop Plants: Production, Detoxification, Signaling, and Molecular Cross-Talk

Author: Janeeshma E.; Das S.; Bouzroud S.; Sarraf M.; Akhtar N.; Mousavi H.; Ibrahimova U.; Fujita M.; Hasanuzzaman M.

Year: 2026

DOI / Link: https://doi.org/10.3390/plants15142212

Abstract: This study, published in Plants (2026), addresses key priorities aligned with Sustainable Development Goal 02 (Zero Hunger) by investigating reactive oxygen species in crop plants: production, detoxification, signaling, and molecular cross-talk. The research provides comprehensive empirical, physiological, and agricultural analyses to enhance crop yield, stress resilience, and sustainable farming systems. Through rigorous field trials, laboratory diagnostics, and analytical modeling, the authors (Janeeshma E.; Das S.; Bouzroud S.; Sarraf M.; Akhtar N.; Mousavi H.; Ibrahimova U.; Fujita M.; Hasanuzzaman M.) detail strategic interventions, resource management strategies, and policy frameworks designed to optimize agricultural productivity, safeguard environmental integrity, and support rural farming communities.