

RECOMMENDATIONS

1. **Enhance research on NUS:** Increase funding and support for comprehensive research on the agronomy, genetics, and climate resilience of NUS crops to improve yield and adaptability.
2. **Promote smart-crop management practices:** Encourage the adoption of sustainable soil and water management practices tailored to NUS crops to enhance productivity and environmental sustainability.
3. **Capacity building and knowledge sharing:** Organize training programs and workshops for farmers, researchers, and policymakers on best practices for NUS crop production, processing, marketing, value addition, branding, consumers preference, business model.
4. **Promote diversification including NUS:** Encourage farmers to diversify their crop production systems with NUS to reduce risks associated with monoculture and improve farm sustainability.
5. **Innovate water-efficient irrigation methods:** Research and promote the adoption of micro-irrigation, drip irrigation, and other water-saving technologies tailored to the unique needs of NUS crops to optimize water use efficiency.
6. **Integrate NUS into crop rotation systems and promote soil health:** Encourage the integration of NUS crops into existing crop rotation systems to improve soil health, reduce pest and disease pressure, and enhance overall farm biodiversity.
7. **Promote nutrient management planning for NUS:** Develop nutrient management plans tailored to NUS crops, ensuring optimal fertilizer application rates and timings to maximize nutrient use efficiency and crop yields.
8. **Implement precision agriculture for NUS:** Adopt precision agriculture technologies to optimize NUS crop management, including soil and water management, fertilization, and pest and disease control.
9. **Create NUS crop database:** Build comprehensive databases that catalog the genetic diversity, agronomic traits, nutritional profiles, and available recommendation practices of NUS crops, supporting breeding, agronomy, soil, water program for different agro-ecological zones.
10. **Expand biophysical and socioeconomic models for NUS adaptation:** Incorporate NUS crops into crop, soil, water, climate, and socioeconomic modeling studies to better understand their performance under future climate scenarios, identify adaptation strategies, policy formulation, and impact at scale.
11. **Standardize protocols for NUS crop trials:** Establish standardized protocols for conducting field trials with NUS crops, ensuring reliable data collection on performance, resilience, and agronomic traits.
12. **Develop value-added products for NUS crops:** Invest in research to create value-added products from NUS crops, such as fortified foods, diversified, and bio-based materials, to increase their market value and consumers' preference.
13. **Utilize NUS in climate change adaptation strategies:** Recognize and utilize NUS as key elements in climate change adaptation strategies for agriculture, given their inherent resilience and adaptability.

14. Develop climate-smart varieties: Prioritize the development climate change resilient varieties of NUS crops with special focus on drought tolerance and nutritional quality.

15. Establishment of sustainable seed supply systems: Seeds of many NUSs are often unavailable in right time and amount. Development of improved seed systems to ensure access to quality seeds for farmers is required.

16. Support women and youth in NUS value chains: Empower women and youth by providing training, resources, and opportunities to engage in NUS cultivation, processing, and entrepreneurship.

17. Strengthen market access and value chains: Research and development towards establishing robust market linkages and value chains for NUS crops, ensuring fair compensation for smallholder farmers and promoting these crops as viable commercial products.

18. Promote interdisciplinary research on NUS: Encourage interdisciplinary research that combines agronomy, climate science, nutrition, economics, and social sciences to generate holistic insights into NUS crop systems.

19. Promote mechanization in NUS crops: Crop establishment, in-season crop management (weeding and pest control), harvesting and threshing of many NUS crops are tedious and lacks mechanization. Promote smart mechanization technologies in NUS crops.

20. Utilize remote sensing and GIS for NUS crop monitoring: Apply remote sensing technologies and GIS tools to monitor NUS crop growth, predict yields, and facilitating precision agriculture practices.

21. Enhance nutritional awareness: Launch educational campaigns to raise awareness about the nutritional benefits of NUS crops among consumers, aiming to boost demand and incorporate these crops into mainstream diets. It also diversifies diets and addresses micronutrient deficiencies, especially in vulnerable communities.

22. Foster policy supports: Advocate for policy frameworks that support the cultivation, research, and marketing of NUS crops, including subsidies, research grants, and technical assistance for farmers.

23. Integrate into national and international food security strategies: Incorporate NUS crops into national and regional strategies for food security and nutrition, recognizing their potential to combat malnutrition and food insecurity.

24. Foster public-private partnerships: Encourage public-private partnerships to support research, development, and commercialization of NUS crops, leveraging private sector innovation and investment.

25. Adopt sustainable packaging and labelling: Develop sustainable packaging and labeling solutions for NUS products that reflect their environmental and nutritional benefits.

26. Standardize quality and safety standards: Establish quality and safety standards for NUS crops and products to build consumer trust and support market access.

27. Develop financial instruments and incentives: Introduce financial instruments and incentives for farmers and entrepreneurs investing in the cultivation and processing of NUS crops, including subsidies, grants, and low interest loans.