

sustainable agriculture. Strengthening the breeding and extension of stable-yielding, climate-adapted varieties tailored to the province's diverse ecological subregions is a strategic priority. Precision cultivation technologies-including drip irrigation, sensor-based nutrient management, and mechanized planting and harvesting-can further reduce yield variability and improve resource-use efficiency, particularly in the face of labor shortages and rising input costs. Looking ahead, the integration of legume production into broader sustainable cropping systems offers a pathway to enhance soil health, reduce nitrogen fertilizer dependency, and improve the resilience of the entire agricultural landscape. Policy incentives that encourage legume inclusion in rice-based rotations, coupled with the development of regional legume brands and value-added processing chains, could simultaneously raise farmer incomes and strengthen domestic protein supply. Collaborative networks among research institutions, extension services, and producer cooperatives will be essential to translate stability research into practical, scalable improvements across the province's legume sector.

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Conflict of Interest Disclosure

The author affirms that this research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

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