

show that growth rate, net assimilation rate, and forage yield can be increased through selection and introgression. Mutation-based studies in *Canavalia* also indicate that plant height, leaf area, and dry seed weight can be altered experimentally, although ideal trait combinations remain unresolved. At the same time, sustainable breeding must address anti-nutritional factors, local adaptation, and compatibility with diversified cropping systems rather than pursuing yield alone. Overall, future sustainable cultivation systems for sword bean should integrate adaptive genetics, moderate-input agronomy, and diversified legume-based farming to improve growth performance, productivity, and long-term soil health.

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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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