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EFFECTS OF SAWDUST-FORTIFIED TOPSOIL ON THE GROWTH AND DEVELOPMENT OF MINI-STEM PROPAGATED PLANTAIN SUCKERS

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INTRODUCTION

Existing researches have demonstrated that sawdust can help improve the structure and aeration of soil (topsoil) (Liu *et al.*, 2018). However, information on the optimum ratio for mini-stem propagated plantain sucker remains limited.

This study evaluate the effect of sawdust-fortified topsoil and identified the best fortification level for improved growth and sustainable plantain propagation.

METHODOLOGY

Research Design: Completely Randomized Design.

Treatment: Four levels of sawdust-fortified topsoil (100%TS, 50:50, 60:40, 70:30).

Method of Generating Mini-stem: Detached corm (split) technique.

Data Collection: Measurement and recording.

Growth Parameters: Stem height, leaf number, stem girth, and leaf area.

Data Analysis: ANOVA (Analysis of Variance)

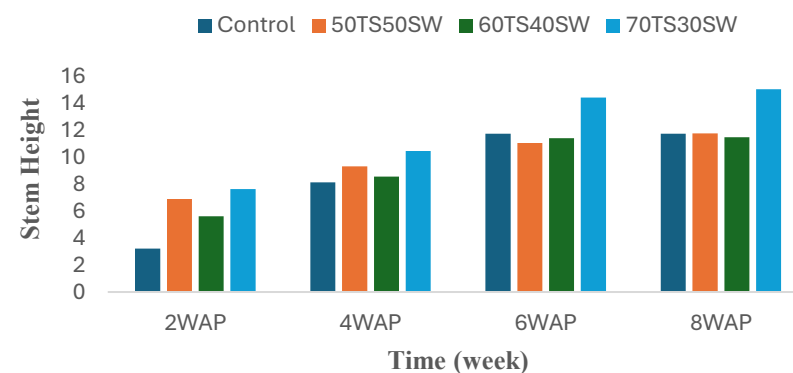
CONCLUSION

Sawdust-fortified topsoil enhance plantain growth and development, confirming its potential as a sustainable propagation medium. The 70TS:30SD ratio yield the best performance, providing an ideal balance of aeration, nutrients, and moisture for mini-stem plantain propagation.

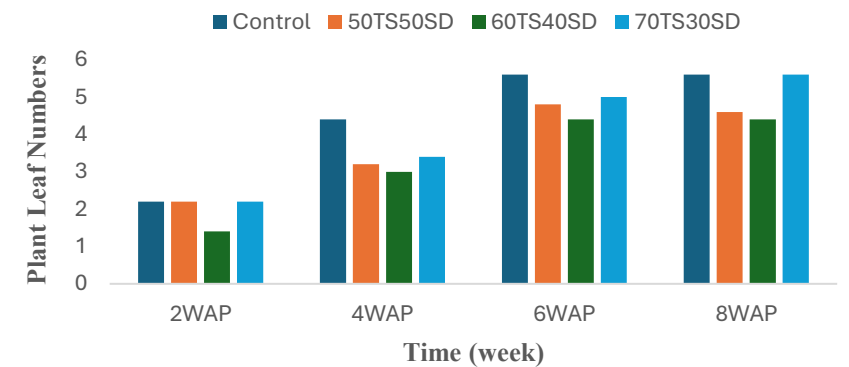
REFERENCE

Liu *et al.*, (2018). *Effect of Sawdust on Soil Physical and Chemical Properties. Journal of Soil Science and Plant Nutrition*, 18(2), 257-265.

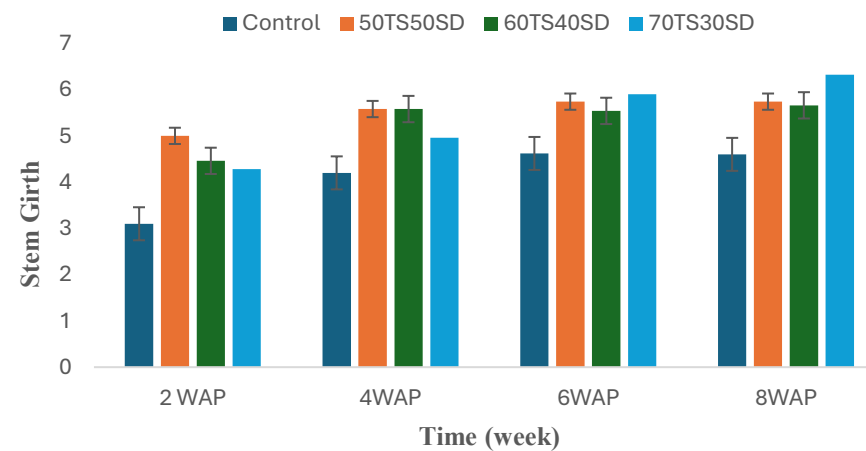
RESULTS



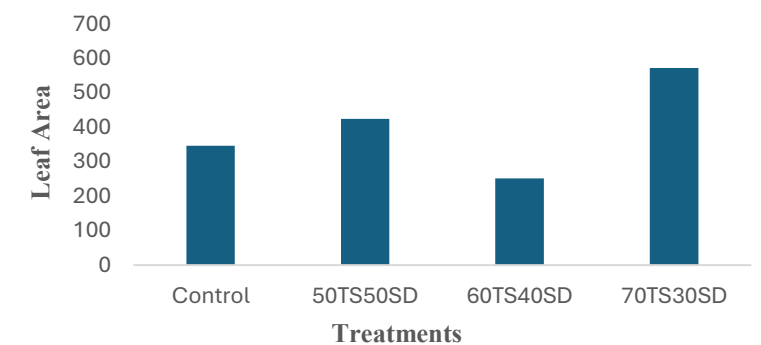
Effect of Sawdust-Fortified Topsoil on Plant Height



Effect of Sawdust-Fortified Topsoil on Leaf Number of plant



Effect of Sawdust-Fortified Topsoil on the Stem Girth of Plant



Effect of Sawdust-Fortified Topsoil on Pant Leaf Area

ACKNOWLEDGMENT

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