# Biochemical changes during off-season flowering in guava (*Psidium guajava* L.) induced by bending and pruning

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## Abstract

A field experiment was conducted during 2003-2004 to study the biochemical changes in the leaf and bark of guava under different bending and pruning treatments during off-season flowering. Lipid, carbohydrate, enzymes, phenolics, free amino acids, proline, and tryptophan concentrations were monitored after new shoot initiation and before flower initiation. Bending and pruning treatments consistently increased the lipid, tryptophan, proline, polyphenol oxidase, catalase, and peroxidase levels in leaves, bark, and fruits, but decreased phenolics compared to that of the control. Such biomolecular changes within the guava shoots may have resulted in greater flowering and fruiting, giving rise to higher yield per plant. Total fruit yield increased from 18.55 to 48.64 kg per plant following this treatment.

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