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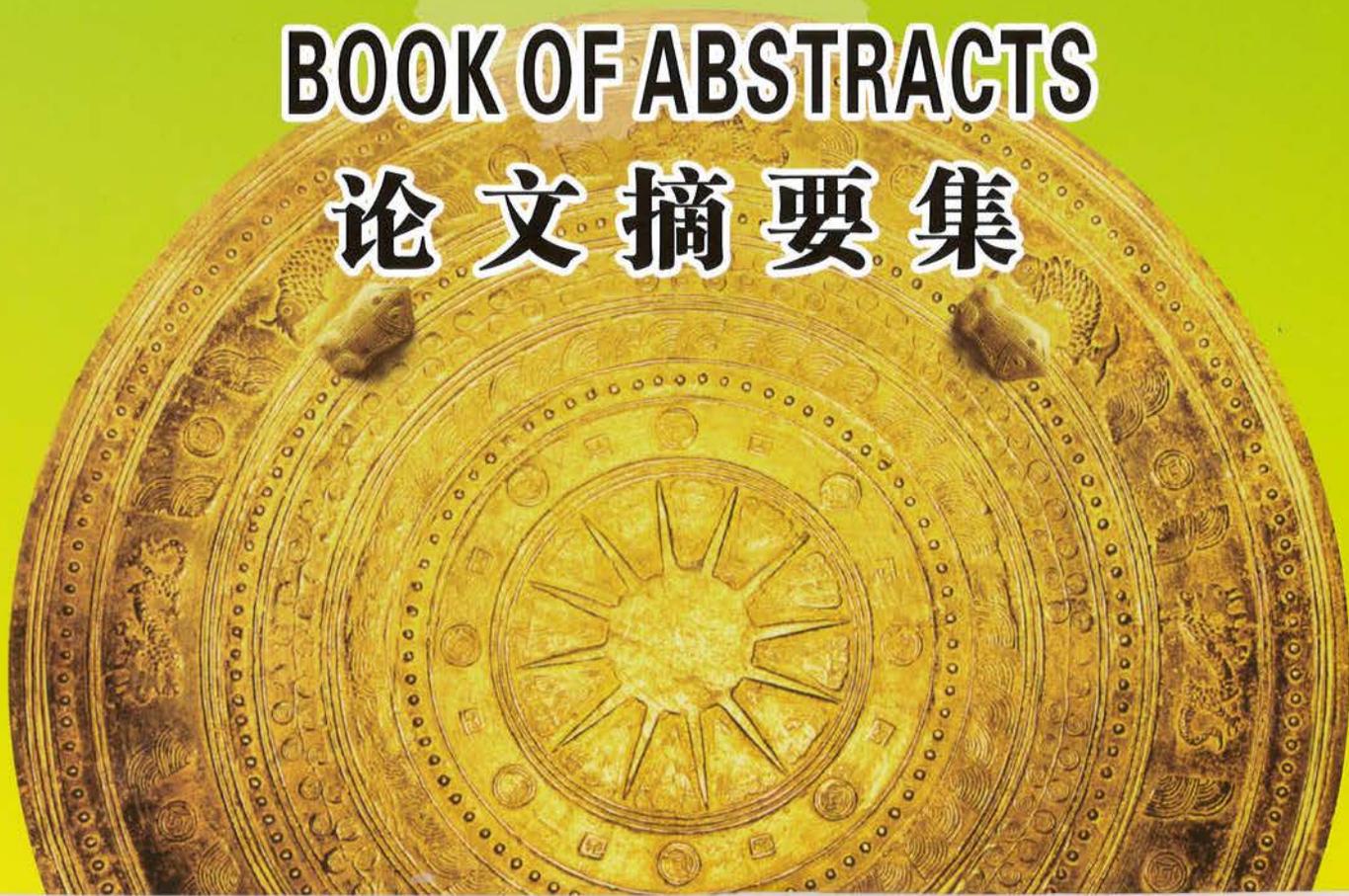
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BOOK OF ABSTRACTS

论文摘要集



XII INTERNATIONAL MANGO SYMPOSIUM

Book of Abstracts

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More leaves, more fruits, is it so simple? Insights into a scale-dependent relationship

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Abstract: Mango flowering is borne by vegetative growth which develops mainly after the previous harvest. This temporal and topological continuity in the mango development suggests that vegetative growth may affect flowering, fruiting and consequently yield. Relationships have been evidenced between the characteristics of a terminal growth unit and its probability of flowering and fruiting, but studies are lacking on the effects of vegetative growth as a whole. The objective of this study was to investigate the relationships between vegetative growth developed during a growing cycle and the subsequent fruit production at three spatial scales: the terminal growth unit of the previous cycle, the scaffold branch and the tree. Data were collected during two growing cycles on three young trees of four cultivars, namely Cogshall, José, Kensington Pride and Irwin. For each growing cycle, vegetative growth was characterized by leaf area and number of terminal growth units of each new shoot developed during the season of vegetative growth. Fruit production was characterized by the number of fruits borne by these shoots. For both cycles and all cultivars, the number of fruits borne by a shoot was positively and linearly related to the leaf area and the number of terminal growth units of this shoot. At the scaffold branch and at the tree scales, the number of fruits was not always positively related to vegetative growth when fruit production and vegetative growth were normalized by scaffold branch or tree size. These results suggested partial branch autonomy with respect to flowering and fruiting mechanisms. Post-harvest vegetative growth is important to ensure fruit production, and consequences for tree management are discussed.

Keywords: branch autonomy, fruit production, growth unit, leaf area, *Mangifera indica* L.