

## **CANOPY MANAGEMENT PANEL SUMMARY**

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There was consensus by the panel members that a large percentage of older avocado orchards all over the world have serious overcrowding problems. This situation influences tree efficiency and restricts the bearing area of the trees. Insufficient light interception by the individual trees and the orchard as a whole as well as the lack of light penetration into the trees is responsible for this. Various strategies for correcting the situation have been proposed in the past. The removal of trees or alternate rows of trees are at best a temporary solution as the remaining trees will, within a period of two years, again fill the space that was created. Severe cutting back (staghorning) causes strong vegetative reaction and trees are thereafter not able to bear fruit for two or more years.

Several strategies have been developed for pruning trees, depending on the degree of crowding, to enable better light penetration into areas where die-back has started or even taken on severe dimensions. It must, however, be emphasized that initial pruning (heart transplant) is an emergency measure and must be followed up by less drastic summer pruning to control re-growth and get an even development of bearing wood. Excessive growth or conditions that promote growth must be managed at certain stages, as this will affect the success of the operation. The initial correction of the light problem must continuously be maintained by lightly pruning the trees and controlling vigorous growth especially through correct irrigation and nitrogen management. However, it has been established that avocado trees can be successfully managed if the whole picture is kept in mind and the correct management program is followed.

In order to prevent orchards from reaching the heart transplant stage, it is suggested that timely orchard maintenance (orchard layout and training systems) be carried out. Avocado trees in higher density orchards can be shaped, trained and maintained with simple practical manipulation techniques to end up with an effective and labor friendly orchard. In South Africa considerable success has been achieved with the training and management of young higher density orchards. This idea is still very revolutionary for some producers, however, with the new concept, the annual replacement of older orchards may be more preferable than the rehabilitation thereof. Results have, for example, shown that within 31 to 43 months after planting high yields could be obtained with the right cultivars. All newly planted orchards should implement this new concept.

Everything about canopy management of avocado trees has obviously not yet been sorted out. Sufficient information is already available, however, to apply the principles of tree training commercially. Research is continuing to refine our current knowledge base.

We wish you success in this new era of smaller and more effective trees. It does, however, require that a management program be followed. Exciting results, that will, in the future, please you and your bank manager, can be attained.