Southern African Citrus Improvement Scheme gets peer reviewed

PAUL FOURIE
CRI Programme Manager: Disease Management

Background
In 2009, the Southern African Citrus Improvement Scheme (SA-CIS) Advisory Committee recommended that a peer review of the SA-CIS facilities and operations should be conducted in compliance with the need for periodic international benchmarking, given the importance and technical complexity of the CIS tasks. Additionally, the review was requested by the representative of the cultivar management companies following the detection of viroids in certain cultivars. Citrus Research International (CRI), as operator of the scheme, adopted the committee’s recommendation and commissioned such a review.

During July – August 2010, the infrastructure, technical capacity and operations of the SA-CIS were reviewed by Patricia Barkley (Technical Advisor, Citrus Australia, Australia) from 12-15 July 2010, and by Profs Moshe Bar-Joseph [The S. Tolkowsky Laboratory (retired) ARO, Volcani Center, Bet Dagan, Israel] and John da Graça (Director - Citrus Center, Texas A&M University-Kingsville, Weslaco, Texas, USA) from 23-26 August. These three citrus pathologists/virologists are world-renowned and collectively have more than a century’s experience in management of citrus diseases and improvement schemes. The review programme started with a meeting in which an overview of the SA citrus industry, Citrus Research International and the SA Citrus Improvement Scheme was presented. The background and context to the review was explained and it was accepted by the local CIS operators that criticism and recommendations will be used constructively to improve the current CIS operations and facilities. CIS facilities and operations were inspected at CRI-Nelspruit, ARC-ITSC in Nelspruit and at the Citrus Foundation Block (CFB) in Uitenhage. One commercial nursery in Kirkwood was also visited.

Findings
Various aspects regarding infrastructure, technical capacity, guidelines and implementation were highlighted for critical periods. Growers are reminded that mancozeb may not be sprayed later than December on fruit destined for the Canadian market and not later than the end of January for Japan. Carbendazim and any other breakdown products of the benzimidazole fungicide group that results in carbendazim residue (Benlate, Spotless, Bavistin, Bendazid, Knowin) may again be sprayed on fruit intended for the EU and countries that abide by the CODEX MRL system (refer to Recommended Usage restrictions document). Copper fungicides or strobilurins in tank mixtures with copper or mancozeb are also options for January. If a spray mixture containing copper will be used, then a copper spray less than 60 days prior to this is not permitted as it will cause stippling.

Remember that the addition of mancozeb or copper fungicides is essential and has been proven to be necessary for effective control of CBS in independent studies.

Never allow gaps to occur in and during the susceptible period from October to January especially where contact fungicides are chosen for control.

Problem periods are usually over Christmas and New Year. Follow-up treatments are necessary where rainfall occurred within 6 hours after applications. Pennfluid (420 g/L SC; mancozeb) and Spoton B (500 g/kg WP; benomyl) were recently registered for the control of CBS.
review. In general, these aspects were rated “adequate” to “exceeding world standards” and the personnel involved should be commended for their collective efforts. However, some aspects were highlighted that were rated “Inadequate with some (to major) attention or improvement needed” and recommendations for improvement were made.

These and other general recommendations were summarised in a 15-page report that was submitted to the SA-CIS Advisory Committee for comments. The CIS roleplayers (all represented on the CIS Advisory Committee) will respond to comments, concerns and recommendations raised in the review and the CIS Advisory Committee will provide recommendations in terms of an Action Plan for implementation by the various affected role players.

Conclusion

Patricia Barkley summarised her findings by stating that

“The South African Citrus Improvement Scheme (CIS) meets, and may even exceed, world standards. It meets the objective of the CIS, which is to increase the profitability of the Southern African Citrus Industry, by ensuring that growers are supplied with nursery trees of the highest possible quality made from the best genetic citrus material and being free from any harmful pathogens. It does this by supplying nurseries with the budwood and seed they require, without the need for mother trees and rapid nursery multiplication on nursery properties, as occurs with schemes in Spain and USA (Florida and California).”

This statement also summarises the general views of Profs. Bar-Joseph and da Graça.

Several concerns were however, highlighted; most notably poor infrastructure maintenance and resource support at ARC-ITSC, succession planning for Barry Manicom, Fanie van Vuuren and Thys du Toit, and space shortages at CRI-Nelspruit and at the CFB. These aspects should be addressed as a matter of urgency. Recommendations were made to improve the current operations, which will be communicated with the CIS operators to ensure continuous improvement of the SA-CIS.

Additionally, the need for a strong educational programme involving breeders, nurserymen and cultivar agents was highlighted. Aspects to be addressed should include the economical implications, symptoms and phases of graft transmissible diseases (especially those of quarantine importance), diagnostic techniques and the difficulties and limitations thereof.

CRI thanks the reviewers for kindly sharing their experience and providing valuable criticism and recommendations.