

# Concern about increase in virus diseases

Dr Dave Keetch, Chairman of the Independent Certification Council for Seed Potatoes in his report to the Seed Growers' Forum said that the occurrence of virus diseases and bacterial wilt due to the planting of certified seed potatoes, dealt the Certification Scheme's credibility a mighty blow, this notwithstanding the fact that the majority of seed potato certifications take place without any problems.

According to him this illustrates the importance of certification and the responsibility borne by the seed potato grower, Potato Certification Service, Potato Laboratory Service, the table potato grower and the seed potato trader. "It is acknowledged that there are sometimes problems with Potato Certification Service and Potato Laboratory Service, but in the majority of cases it can be ascribed to the negligence or mismanagement on the part of the relevant seed potato grower. We must accept that the success of the Scheme, which is regarded as one of the best in the world, relies on the integrity of the grower and the efficiency and accuracy of the certification bodies. If we cannot put our trust in these relevant parties, we can forget about this or any other scheme," he said.

He explained that the high virus pressure is the result of aphids not being properly controlled. "The reasons for the increased aphid population can be speculated about, but the fact remains that the distribution of infected planting material and the control of aphid populations will have to receive the serious

attention of all seed potato growers and table potato producers."

The following are extracts from his report to the Forum:

## Leaf roll

The appearance of leaf roll, especially in the Sandveld, Ceres and Mpumalanga has increased over the past few years, but the data for 2003/2004 has shown that it has now also spread to the Eastern Free State and KwaZulu-Natal. Reports of leaf symptoms that, according to claims, do not look like ordinary leaf roll symptoms have been received from the Sandveld. An investigation of the occurrences undertaken by a virologist confirmed that the symptoms were indeed caused by leaf roll. The virologist in his report indicated that the host range for leaf roll is extremely small and limited to potatoes. He added that infected seed potatoes, infected neighbouring potato fields and infected volunteers are the main sources of infection and that the effective control of aphid populations is extremely important to prevent the spreading of this virus disease.

## Certified Seed Potatoes

The period under review was typified by results with high virus content. At the end of 2003 complaints were received from Limpopo in particular that virus infections generally occur on plantings with certified seed potatoes coming from the Sandveld. Potato Certification Service visited all the plantings in Limpopo and visually (infected plants were also confirmed by laboratory tests) confirmed that the occurrence of mosaic virus (PVY) and leaf roll virus on the plantings averaged between 30% and 80%. "The findings in Limpopo correspond with the results of the post control tests in general, but in some cases the occurrence of the viruses was percentage-wise much higher than was the case with the post control results. The investigation also showed that the use of uncertified material primarily contributed to the outbreak, dr Keetch said.

Towards the end of last year the Independent Certification Council for Seed Potatoes considered and accepted the following short term and long term recommendations tabled by Potato Certification Service and Potato Laboratory Service in an effort to resolve the problem: In the short term the following actions were instituted regarding the test procedure:

- An urgent investigation into the influence of artificially stimulated sprouting on test results in compari-

son with results in the case of natural sprouting.

- An urgent investigation into the validity of the current procedure to test the apical sprout only.
- An urgent investigation into the validity of adjusted cut-off values where background readings represent possible virus infection.

As far as the long term recommendations were concerned it was accepted:

- to urgently investigate the proclamation of identified seed potato production areas, substantiated by comprehensive motivations and factual evidence for presentation to the Independent Certification Council for Seed Potatoes;
- that the current continuous planting cycle in the Sandveld, with due allowance for the aphid flight patterns, be interrupted by a minimum period of eight weeks;
- that the monitoring of aphid populations to bring about the implementation of halm killing dates, be considered as a matter of urgency;
- that where the requirements applicable to halm killing are not adhered to, the certification of the seed potatoes of the relevant unit should be based on a 400 tuber store sample only;
- that where voluntary growth is detected after halm killing the certification of the seed potatoes of the relevant unit be based on a 400 tuber

continued on p 34

## Concern *continued*

store sample only;

- that where volunteers appear on a relevant unit or neighbouring units the certification of the seed potatoes of the relevant unit should be based on a 400 tuber store sample only; and
- that where plant aphid numbers on potato plantings are detected during the growth stage, the certification of the seed potatoes of the relevant unit be based on a 400 tuber store sample only.

In addition Potato Certification Service and Potato Laboratory Service have implemented the recommendations made by a task team appointed by the Independent Certification Council for Seed Potatoes to investigate the legality of the protocols, possible shortages and the effectivity of the lines of communication between Potato Certification Service and Potato Laboratory Service.

### Bacterial Wilt

The Bacterial Wilt Committee visited six seed potato growers in KwaZulu-Natal and the Sandveld who experienced bacterial wilt infestations with certified seed potatoes coming from sources in the Sandveld. In five cases it was the first time bacterial wilt was confirmed on these farms. In all five cases the committee could recommend sanitary and preventative measures in order to allow the growers to continue with seed potato production, subject to cer-

tain conditions.

During the sequential investigation into the sources of bacterial wilt in the Sandveld, the Bacterial Wilt Committee identified certain farms that were regarded as risks for the production of seed potatoes. No further registrations shall be accepted on these farms.

He said in conclusion that the industry as a whole will have to take joint action to resolve the problems in the seed potato industry to ensure the future of a viable potato industry.