

## DISEASE NOTES OR NEW RECORDS

## First record of banana bunchy top disease in New Caledonia

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**Abstract.** Banana bunchy top disease was identified for the first time in New Caledonia in June 1999. The disease was found only on the south part of the main island, mainly in residential areas and infrequently in commercial banana plantations. Infected plants showed obvious, typical symptoms and an eradication campaign is being undertaken.

Banana bunchy top, the most serious virus disease of banana, was first described from Fiji in 1889 and is now present on many Pacific islands (Thomas and Iskra-Caruana 1999). In New Caledonia, no infected plants have been observed by CIRAD or ORSTOM research teams working on the inventory of horticultural plant diseases since 1978. Earlier reports of the presence of this disease in New Caledonia were not accompanied by any supporting evidence. However, the banana aphid (*Pentalonia nigronervosa* Coq.), vector of *Banana bunchy top virus* (BBTV), has been identified in New Caledonia (Pinson 1991).

Symptoms of banana bunchy top disease were first noticed in June 1999, in a banana planting in Robinson, Mont-Dore, in the south of the main island (Grande Terre) of New Caledonia. Banana cultivars Williams (AAA, Cavendish subgroup) and Poingo (AAB, Popo'ulu subgroup) showed typical symptoms, with a dwarfed and bunched habit and narrow, upright leaves which were progressively shorter. Upcurling and chlorosis of the lamina edges and discontinuous dark green streaks on the leaf sheath, midrib and secondary veins were also present. BBTV was detected in these plants by ELISA and polymerase chain reaction (Sharman *et al.* 2000). The disease is thought to have been introduced at least 18 months previously, probably in infected plant material introduced from another Pacific Island nation.

Surveys were conducted, using visual observation and ELISA, to establish the distribution of the disease. Infections were confined to four town districts (Mont-Dore, Nouméa,

Dumbea and Païta) in the south of Grande Terre. Infection levels were greatest around Mont-Dore and the north-east of Nouméa with up to 70% of plants in some residential areas infected. Only a few isolated infections were found around the town districts of Dumbea and Païta and nearby commercial banana plantations. Infected plants that were found were immediately destroyed. Surveys have not detected the disease in the remainder of Grande Terre, Loyalty Islands and the other small surrounding islands of the territory. Obvious, typical symptoms of the disease were displayed by all banana cultivars, including Cavendish subgroup cultivars Williams and Grande Naine, cv. Poingo, cv. unknown (ABB, Bluggoe subgroup) and cv. Pisang Ceylan (AAB, Mysore subgroup).

The government of New Caledonia is undertaking an eradication campaign and to date, nearly 70 000 banana plants have been destroyed.

## References

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