Chemical control of stem-end rot on mango fruits in the San Francisco river valley

Wellington A. Moreira[1], Edineide E. Magalhães[1], Daniela B. Lopes[1], Flávia R. Barbosa[1], Alba V. S. Pereira[1], Adriana Andrade Azevedo[2]

[1]Embrapa Semi-Árido C.P. 23, CEP 56300-970 Petrolina-PE, Brasil; wmoreira@cpatsa.embrapa.br

[2]ESAM, Mossoró-RN, Brazil

Lasiodiplodia theobromae is specifically important for mango (*Mangifera indica*) grown in semi-arid regions of Brazil, attacking branches and panicles and also causing major problems after harvesting as a stem-end rot pathogen. The objective of this study was to assess the efficacy of some fungicides in reducing the incidence of stem-end rot when applied after flowering onset. The following products and its respective dosages per hectare were tested: difenoconazole (7.5 g, 10 g, 12.5 g), azoxystrobin (8.0 g + nonil phenol ethoxilate, 0.05%), chlorothalonil (123 g) and propiconazole (100 g). The experiment was conducted in an eight-year-old commercial orchard, cv. Tommy Atkins, in Petrolina-PE. The chemical treatments and an untreated control were randomly assigned to a complete block design, with four replicates. The experimental unit was comprised of three plants. The treatments were sprayed six times, beginning at the onset of flowering, at 15-days intervals. At harvest, 96 fruits per treatment were brought to the laboratory and stored at room temperature for 15 days. The fruits were then visually assessed for symptoms of stem-end rot, and the presence of *L. theobromae* was confirmed through isolation in PDA. All chemical treatments significantly reduced the incidence of stem-end rot (Tukey, $P< 0.05$), when compared to the control. The incidence reduction varied from 56.7% (chlorothalonil) to 67.57% (propiconazole). There was no statistical difference among the chemical treatments.