

## OCCURENCE OF GEMINIVIRUS IN TOMATO PLANTS IN BAHIA.

\*Ribeiro, S.G.<sup>1</sup>, Bezerra, I.C.<sup>2</sup>, Lima, M.F.<sup>3</sup>, de Ávila, A.C.<sup>2</sup>, Giordano, L.B.<sup>2</sup>.

<sup>1</sup>CENARGEN/EMBRAPA. SAIN Parque Rural s/n - CEP 70770-900. Brasília-DF.

<sup>2</sup>CNPB/EMBRAPA. BR 060 km 09- C.P. 0218. CEP 70359-700 Brasília-DF.

<sup>3</sup>CPATSA/EMBRAPA - C.P. 23 - CEP 56300-000 Petrolina-PE.

Tomato (*Lycopersicon esculentum* L.) is one of the most important plants cultivated in Northeastern Brazil.

This year, a new virus-like disease in tomato plants in Seabra, Bahia State was recorded. The incidence of the disease in the 6 ha cultivated was estimated in nearly 100%. The symptoms consisted of yellow mosaic, very strong in some leaf areas. Deformation of fruits was also observed but not of leaves. There was neither reduction in the foliar area nor in the size of the plants. The presence of whitefly (*Bemisia sp*) was also observed in this field.

In order to determine the etiological agent of this disease samples were collected from this area and tested for the presence of Tospovirus species (TSWV, TCSV, GRSV, INSV, CSNV and ZLCV) by ELISA.

Since the results did not show the presence of any of these tospoviruses, and the symptoms were very similar to that induced by geminiviruses in tomato, the samples were tested for geminivirus presence. Dot blot analysis of leaf sap from infected plants was carried out. A positive signal was observed when a heterologous probe consisting of full-length DNA-A components of BGMV-Bz (bean golden mosaic virus from Brazil) and BGMV-GA (bean golden mosaic virus from Guatemala) was utilized in the hybridization at 50°C.

PCR of DNA extracted from infected plants was also carried out using degenerated primers for whitefly-transmitted geminiviruses (Rojas *et al.*, 1992). A band of 1.2 kb was obtained when primers which amplify a fragment of DNA-A were used. At present, this fragment is being cloned for further characterization.

This first report of geminivirus infection in tomato plants in Bahia reveals a wide dispersal of geminivirus throughout Brazil since tomato infection with this group of viruses has been previously described in the Federal District and the states of São Paulo and Minas Gerais.

Abc  
Abr  
Agu  
Ale  
Aln  
Aln  
Anc  
Âng  
Ara  
Arn  
Ass:  
Aug  
  
Bac  
Barl  
Barl  
Barl  
Barr  
Berg  
Bers  
Bon:  
Bont  
Bont  
Bran  
Brag  
Britc  
Bron  
Buzi  
  
Cabr  
Cam:  
Cana  
Când  
Card  
Card  
Castr  
Castr  
Castr  
Carva  
Carva  
Carva  
Caval  
Cecili  
Coelh  
Costa  
Crowt  
Cubel