Virus symptom types associated with fluted pumpkin (*Telfairia occidentalis* hook f.) in Benue state

*Time I. and Chikezie C. K.
Department of Crop and Environmental Protection, University of Agriculture, Makurdi, Nigeria
*Corresponding author e-mail: markimbor@yahoo.com

ABSTRACT

Objective: To identify common types of symptoms associated with virus infections, their patterns and distribution on pumpkin leaves in Benue State, Nigeria.

Methodology and results: Pumpkin fields and private gardens in nine pumpkin producing local government areas (LGAs) of Benue State were sampled between June to July 2015 for virus symptom expressions, types, their frequencies and distribution. Using visual observation of virus symptoms in pumpkin farms, 486 plants from 81 fields were examined and symptomatic plants counted according to symptom types. Young leaf samples from plants showing symptoms and those without symptoms were collected. These were preserved on cotton wool in 25 cm bottles containing $CaCl_2$ for other investigations. Data on types of symptoms were converted to percentages and analysed using ANOVA ($p \leq 0.05$). Symptom types differed significantly ($P \leq 0.05$) among pumpkin fields from 2% in necrosis to 25% in mosaic. Six symptom types and a mixture of symptoms were observed on pumpkins in the field. Significant differences ($P \leq 0.05$) were recorded on symptom types also across LGAs. Most of the mosaic and vein banding symptoms (31%) and (19%), respectively were observed on pumpkins in Buruku LGA followed by Gwer (27%). Leaf size reduction were more (20%) in Vandeikya while necrosis was found only in Makurdi (7%) and Ukum (9%) LGAs. Mixed symptoms were found in all the LGAs surveyed except Makurdi, being highest (33%) in Vandeikya and Oju LGAs. Patterns of symptom spread were mostly scattered (67%)

Conclusion and application of findings: Data provided by this study will serve as a guide for field detection of the virus diseases of the crop by farmers and researchers in the field for further identification and management measures of the diseases.

Key words: Symptom types, *Telfairia*, Virus, Survey