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## Increase in the Importance of Ethiopian Pepper Mottle Virus in Hot Pepper Production in the Rift Valley Part of Ethiopia — Time to Create Awareness among Farmers and Researchers

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### Abstract

Hot pepper (*Capsicum annum*) is an economically and traditionally important crop in Ethiopia. In addition to its export value, the powder from the dried pod is the main component in the daily diet of Ethiopians. Districts such as Awassa, Alba, Ziway, Marko, Boditti, Humbo, Meki, and Koka in the rift valley parts are the major producing areas of the crop. In these areas, hot pepper serves additionally as income generating crops for off-farm activities of farmers particularly in the time of cereal deficit.

Observation showed that the production of the crop has been banned in some years due to unacceptably high proportion of viral infection. In order to determine and verify the identity of viruses involved, 400 samples collected from farmers field in 2001/2001 cropping season were subjected to different virus identification methods. The result revealed that 60% and 10% of the samples were infected by EPMV alone and in mixed infection with the other potyviruses respectively.

In order to further undertake applied investigations and reaffirm the results, biological and serological properties of EPMV were well established. Then, for routine analysis of more samples antiserum against a severe strain, designated as EPMV-bod3 was produced. Using this antiserum, 450 samples of hot pepper in the 2002/2003 cropping season were analysed with DAS-ELISA. The results revealed that 78% of the samples were infected with EPMV, confirming its importance in the region.

EPMV has been found to be endemic to Ethiopia. Although information on aspects of virus-vector relationship under field conditions are still lacking, the conducted studies revealed that EPMV has many natural reservoirs in the region. In addition, farmers grow very viruses susceptible varieties. Interviews with farmers also indicated a lack of knowledge concerning the cause of their crop losses. Trained extension workers in the field of plant virology who can help farmers in virus diagnosis are lacking. Combinations of these factors have contributed to the increasing importance of the virus in the region. It is high time, therefore to make farmers aware of their problem and to devise suitable management measures against the virus.

**Keywords:** Hot pepper, EPMV, farmers, rift valley parts of Ethiopia