

Virus Diseases of Edible Seed Squash (*Cucurbita pepo* L.) in Aksaray Province

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Abstract : Cucurbits (the Cucurbitaceae family) include 119 genera and 825 species distributed primarily in tropical and subtropical regions of the world. The major cultivated cucurbit species such as melon (*Cucumis melo* L.), cucumber (*Cucumis sativus* L.), squash (*Cucurbita pepo* L.), and watermelon (*Citrullus lanatus* (Thunb) Matsum.&Nakai) are important vegetable crops worldwide. Squash is grown for fresh consuming, as well as its seeds are used as a snack in Turkey like some Mediterranean countries and Germany, Hungary, Austria and China. Virus diseases are one of the most destructive diseases on squash which is grown for seeds in Aksaray province. In this study, it was aimed to determine the virus infections in major squash growing areas in Aksaray province. Totally 153 plant samples with common virus symptoms like mosaic, curling, blistering, mottling, distortion, shoestring, stunting and vine decline were collected from squash plants during 2014. In this study, DAS-ELISA method is used for identifying the virus infections on the plant samples. According to the results of the DAS-ELISA 84.96 % of plant samples were infected with Zucchini yellow mosaic Potyvirus (ZYMV), Watermelon mosaic Potyvirus-2 (WMV-2), Cucumber mosaic Cucumovirus (CMV), Papaya ringspot Potyvirus-watermelon strain (PRSV-W) and Squash mosaic Comovirus (SqMV). ZYMV was predominant in the research area with the ratio of 66.01 %. WMV-2 was the second important virus disease in the survey area, it was detected on the samples at the ratio of 57.51 %. Also, mixed infections of those virus infections were detected commonly in squash. Especially, ZYMV+WMV-2 mixed infections were common. Cucumber green mottle mosaic Tobamovirus (CGMMV) was not present in the research area.

Keywords : Aksaray, DAS-ELISA, edible seed squash, WMV-2, ZYMV

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