

**P-95 (184)****EFFECT OF FIG MOSAIC DISEASE ON SOME BIOCHEMICAL AND PHYSIOLOGICAL PROPERTIES OF FIG LEAF**

**Hamid Zare**, Fig Research Station, 74515-315 Estahban, Iran; [hamidzare777@gmail.com](mailto:hamidzare777@gmail.com)  
(Presenting author)

**Ms. Aazam Zamanifar**, Payame- Noor University, Estahban, Iran;  
[Elaheaseman1988@gmail.com](mailto:Elaheaseman1988@gmail.com)

**Dr. Mohsen Yassaie**, Fars Agricultural and Natural Resources Res, Shiraz, Iran;  
[myassaie@yahoo.com](mailto:myassaie@yahoo.com)

Fig mosaic disease (FMD) is known as the most important infectious disorder of fig (*Ficus carica* L.). FMD is the most common and widespread viral disease of fig that is globally distributed emerging highly variable symptoms. As the viral infections often impress metabolism, photosynthesis and carbon assimilation of their hosts, this study has been conducted to determine the effects of FMD on some physiological and biochemical properties such as carbohydrates, pigments, leaf temperature and relative water content in leaves in healthy and infected fig trees in Estahban (Fras province) fig. Polymerase chain reaction was employed to confirm the healthy and infected fig trees those were showing leaf mosaic symptoms regarding fig mosaic virus (FMV). Leaf samples were prepared using labeled trees those were determined as healthy, infected without and with mosaic symptoms. A significant reduction in carotenoids, a, b, and total chlorophyll were observed, as well as starch and relative water content in infected comparing to healthy leaves. Significant reduction in photosynthesis rate and metabolism of carbohydrates are assumed as the consequences of above changes. Although, total sugar concentration and leaf temperature were significantly increased in infected leaves showing mosaic symptom comparing to symptomless and healthy control. Leaf width and its tissue firmness were deducted in symptomatic fig leaves

**Keywords:** Carbohydrates, Pigments, Starch, Relative Water Content