Introduction

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Lactuca sativa L., local name "khass" was found to be naturally infected by a virus disease in a field near Benha, Kalubia, Egypt.There are at least 12 viruses affect lettuce production, the most distructive virus is lettuce mosaic virus . Like most potyviuses, lettuce mosaic virus has a wide artificial host range, transmitted through seed and aphid, thermal inactivation point ranged from 50-66°C, dilution end point is 10^{-2}-10^{-3}, longevity in vitro is 1-4 days and the virus particles are flexuous rods ranging from 740-760 X 13-22 nm.Cytoplasmic inclusions of all potyviruses are pinwheels and bundles. The virus induced severe mosaic mottling, sharp distortion and abnormalities on the leaves. Since *Lactuca sativa* is a very important commercial vegetable plant for people in Egypt and lettuce mosaic virus causes loss of weight of lettuce reached 40% and some plants failed to form heads, it was thought useful to study the virus on *Lactuca sativa* in the hope of making clear identification of it. Also, it considered important to study the virus and evaluate the possible significance of this plant as a source of infection for economically important cultivated plants.

The followinng studies of the virus have been made:

Part 1- Isolation and Identification of the virus according to:

Host range, transmission, virus morphology and physical properties.

Part 2- Histopathology of virus infected leaves showing necrotic local lesions.