



## Abutilon Mosaic Virus: Benefiter Disease of Plant

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### DESCRIPTION

As plants grow, viruses are transmitted from plant to plant through vegetative growth, although viruses are often transmitted worldwide through seeds. Understanding the difference of pathogenic viruses associated with horticultural plants remains a challenge for plant pathologists. Pathogenic plant viruses can damage plants by producing a variety of symptoms, including wilting and stem and fruit disease. With few options for control, viral diseases in garden plants can be a problem for gardeners.

Abutilon Mosaic Virus (AbMV) is a virus distributed worldwide (in ornamental plants). Taxonomy: bigeminivirus: Geminiviridae. Strains: mosaic abutilon A=West Indian virus. abutilon mosaic B=Brazil virus; abutilon mosaic virus Hawaii. As of 2007, AbMV was the only known Gemini virus in Hawaii. Some Abutilon species, especially *Abutilon striatum*, have a very impressive disease. This mosaic is an example of beneficial plant diseases due to the effect of different and beautiful mosaic patterns on the affected leaves. This disease has little effect on plant growth, establishment and flowering. The nature of the disease does not significantly affect plant growth (this disease is not considered a disease that weakens the growth of *Abutilon striatum* for energy and flowering).

In fact, this is a case of plant disease where infected plants are better than uninfected plants. In Hawaii, some farmers sell the "Abutilon varietal" or "gold dust" variant. Indian mallow is sometimes sold as an ornamental under the garden names 'Thompsonii' or 'Gold Dust'. The flowering maples first introduced into Europe had solid green leaves. *Abutilon striatum* is not a true maple, the genus *Acer* is a family of trees and shrubs; the leaves of *Abutilon striatum* are similar in appearance to maple leaves. In 1868, a seed arrived in a shipment of *Abutilon* in England. West Indian leaves are bright yellow. After that, the symptomatic plant is diffused. This virus was first reported in *Malva parviflora* in Germany.

### Symptoms of the disease

In *Abutilon striatum*, the leaves are pale with a white to light yellow mosaic similar to the variety. The yellow leaves are strongly marked by the veins of the leaves giving them an angular form. Symptoms may vary depending on seasonal light intensity. Transmission of the virus and the AbMV virus is transmitted by the mosquito, *Bemisia tabaci* (Aleyrodidae).

### Transmitted in persistent form

In the continuous transmission of plant viruses, the feeding time increases and the introduction or transmission of the virus by the vector increases. It usually takes 12 hours or more before the carrier sheds the virus. The vector remains infectious for a long time, possibly for a long time, but although the virus does not disappear as the vector matures, its transmission capacity decreases as the vector ages.

- Captured during vector replication.
- Do not replicate within the vector.
- Transmitted by mechanical injection and inoculation.
- Transmitted in a family not transmitted to the vector progeny of the vector.
- Infected without contact between plants, seeds or pollen.

A grower and seller of *Abutilon* varieties on the island of Hawaii shows mosaic symptoms that occur in other healthy *Abutilon* varieties. After grafting your own grafts on *Abutilon striatum* rootstocks infected with ABMV.

### Disease treatment

This disease is not usually treated or managed. However, the symptoms may vary depending on the intensity of the light and may be better in dark light. Some reports indicate that all green, disease-free leaves can be produced when diseased leaves are removed.

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