

Cucumber mosaic virus on celery

Cucumber mosaic virus (CMV)



Petioles showing brown sunken spots (William M. Brown Jr., Bugwood.org)

Prevention	Monitoring	Direct Control
<ul style="list-style-type: none"> • The CMV is transmitted by aphids so prevent the entry of this vector into the crop: <ul style="list-style-type: none"> • Plant natural barriers around the field with non-susceptible crops like poaceae (e.g. maize) • Use floating row covers to protect the seedlings from the winged aphids in the first weeks. Remove for pollination • The seeds of infected plants can serve as inoculum so only use certified seeds • Avoid transplanting plants from affected areas or fields near to these areas or from susceptible crops • Remove weeds that can serve as reservoir plants (weeds and ornamentals are often asymptomatic) in and around the crop before transplanting, and continue to remove weeds throughout the crop cycle 	<ul style="list-style-type: none"> • The symptoms can vary widely depending on when infection occurs: <ul style="list-style-type: none"> • Leaves: at the beginning, vein clearing and mosaic patterns are seen and later leaves become yellow with vein necrosis • Petioles: look for brown spots to translucent sunken lesions (distinctive symptom of the Celery mosaic virus (CeMV)) • Whole plant: if the infection is early in the development, plants are stunted with yellow leaves, show vein necrosis and show distinctive brown elongated lesions or translucent sunken lesions on the petioles • If the conditions are fresh or the infection happens late in the growing season, the symptoms may be hidden • Monitor for aphids and virus symptoms once a week, especially early in the season when the crop is more vulnerable to the virus. Apply control measures when aphids are seen in the field 	<ul style="list-style-type: none"> • Remove and burn the infected plants immediately • To reduce the propagation of the aphids: <ul style="list-style-type: none"> • Use yellow sticky traps to attract and kill the winged aphids • In the early morning or late afternoon, apply a solution of neem oil and soap (160-220 cc neem: 100 g of soap in 20 L of water) to both sides of the leaves • There is no chemical control for virus, and chemical insecticides are not efficient to reduce the aphid population that transmits the virus

Note: Pesticides may be available to control this pest. Please check with the Ministry of Agriculture in your country to find out which pesticides are registered in your country and the local restrictions for their use.