

Cucumber Green Mottle Mosaic Virus (CGMMV)

Impacts on California Cucurbit Producers

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Director of Technical Services
California Seed Association

California Seed Association

Nonprofit Agricultural Trade
Association

Serving the California Seed Industry
since 1940.

CSA Membership consists of those
engaged in the distribution of seeds for
planting

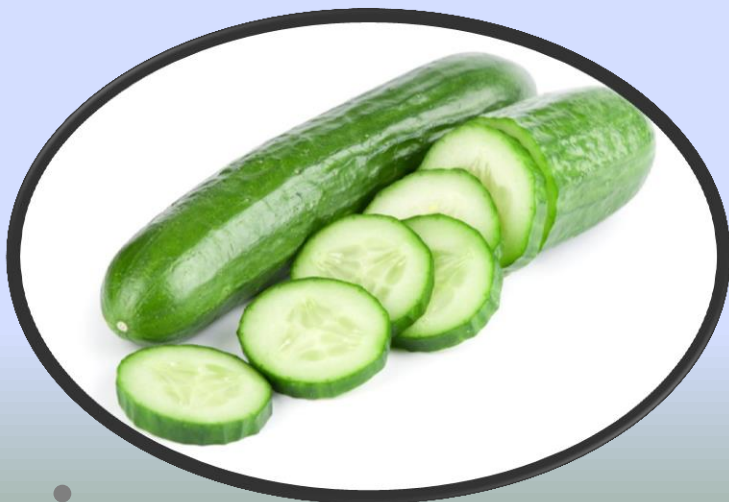
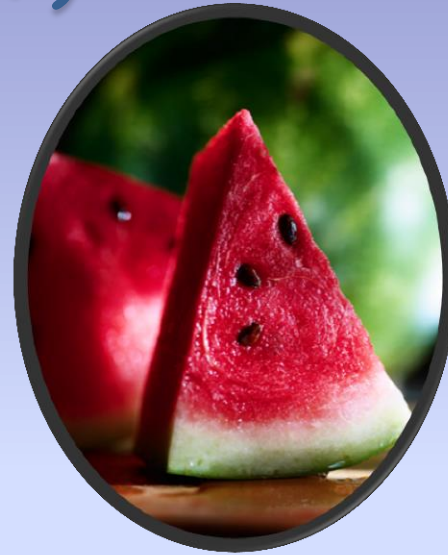
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Cucumber Green Mottle Mosaic Virus (CGMMV)

Status of Detections

Impacts of Detections

Call to Action



Initial Detection

July 2013 - First Detection of Cucumber Green Mottle Mosaic Virus, (CGMMV) and Bacterial Fruit Blotch, (BFB) in a melon seed production field in Yolo County during a PQ walk by County Inspectors.



2014 Detection

August 2014 - CGMMV detected in 3 seedless watermelon production fields in California .



Significance of Detection

- ✓ First known detection of CGMMV in the US (2013)
- ✓ Trade Implications
 - ✓ Seed
 - ✓ Fruit



Should be Noted

- ✓ Not a food safety concern
- ✓ A seed quality and food production issue.
- ✓ Not vectored by aphids
- ✓ Virus can be managed, with cooperation and collaboration among stakeholders being the key to success

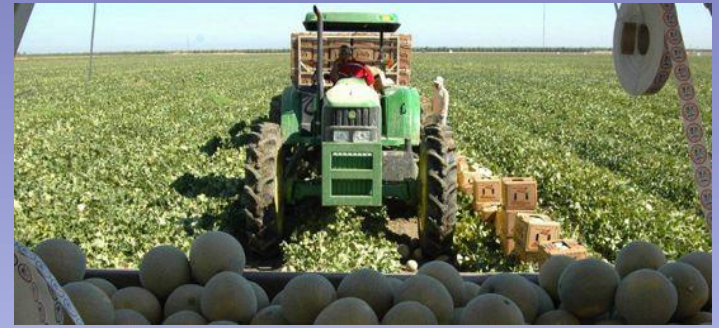


Why the Concern?

- ✓ Effects the quality and yield of seed and subsequent crops
- ✓ Potential effects on fruit



Additional Concerns



- ✓ Mechanically and seed transmitted
- ✓ Virus is persistent in soil
- ✓ Heat stable
- ✓ Symptoms difficult to see in high light/heat



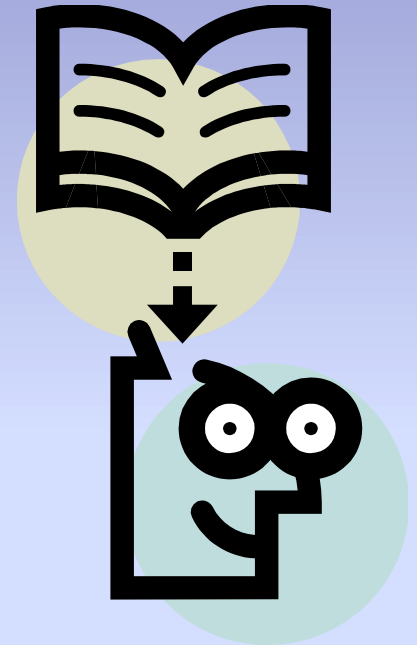
Impacts



- ✓ Fields Abated (actionable pest)
- ✓ Non Host only crop rotation for a minimum of 2 years

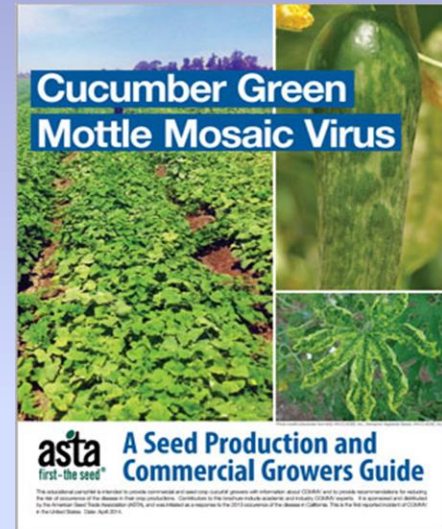
Seed Industry Working Group Formed (Fall 2013)

- ✓ Identify Issues
- ✓ Develop Fact Sheet
- ✓ Develop Outreach & Educational Materials



A Seed Production and Commercial Growers Guide

- ✓ About CGMMV
- ✓ Causes and Sources
- ✓ How to Diagnose CGMMV
- ✓ Factors Influencing Symptom Expression
- ✓ Recommendations for Control



Outreach and Training 2014

- ✓ Overview of Detection - Nick Condos
- ✓ Impact on Seed Industry - Betsy Peterson
- ✓ Biological Perspective - Chet Kurowski
- ✓ Field Detection Protocols & Biosecurity - CDFA
- ✓ Seed Sampling - John Heaton
- ✓ Federal Perspectives - Robert Baily



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APHIS Seed Summit (July 15-17, 2014)



Summit Topics

- Framing the problems associated with STDs
- Address challenges for selected crops/pathogens
- National Seed Health System (NSHS)



Summit Outcome

- Formed Cross-functional working groups
- Voluntary industry actions to reduce the need for additional regulations
- ASTA partnered with APHIS to develop a proposal for Farm Bill funding for a pilot program



Summit Action Items



- ✓ Accredited Seed Testing Program
- ✓ Baseline Monitoring
- ✓ Follow-up Meetings
- ✓ Workshop - ASTA Veg/Flower convention in Tampa, Jan 2015

Accreditation Program

Initial focus - imported seed.

A non-regulatory or minimally regulatory approach.

Ability for participation by all





Pilot

- ✓ 10 Participants
- ✓ Funding from USDA Farm Bill ???
- ✓ Seed Health Testing Network

Accreditation - Next Steps

- Draft/Approve Compliance Agreements
- Identify Pilot Participants
- Develop Guidance for Developing QM Manuals



Current Status

- 2013 and 2014 Detections considered to be transient and under control



Ongoing Activities



- Continued Communication with Stakeholders and Regulatory Agencies
- Outreach to Growers/Transplant Houses
- Cross Functional Work Groups



CGMMV INTERACTIVE WORKSHOP

To identify risks associated with daily activities that could potentially spread pathogens and then to identify potential mitigations that could be implemented.



Conclusions

This will require a joint effort of all involved in cucurbit production

Seed Suppliers
Transplant Nurseries
Growers

Working together to identify appropriate management for handling seed transmitted pathogens

Contributors

- ASTA
- CSA
- USDA APHIS
- CDFA
- HM Clause
- Monsanto
- Syngenta
- Bayer Crop Science
- ASTA Veg Tech Sub Committee
- Kai Shu Ling, USDA
- Bryce Falk, UC Davis
- Darrell Maddox, Endless Skies

Thank you!

www.calseed.org