Zebra Chip of Potato: A New Threat to US Potato Production
Zebra Chip of Potato

• Zebra Chip was first identified in Texas but has now been reported in California, Colorado, Kansas, Nebraska, New Mexico and Wyoming

• The disease affects all market classes

• It reduces both yield and quality
Zebra Chip of Potato

• ZC may be caused by a bacteria called *Candidatus Liberibacter* - *but this has not been scientifically verified!*

• The potato psyllid has been demonstrated to be the vector – *control has been difficult!*

• Most ZC-affected seed do not sprout but some do – *Epidemiological impact unknown!*
ZC Specialty Crop Research Initiative

Management Of Zebra Chip To Enhance Profitability And Sustainability Of US Potato Production

• New project with a team of 20 multidisciplinary researchers and extension specialists, and an Advisory Board of Stakeholders.

• Team members come from six State Universities and USDA-ARS

• Scientists represent six states: California, Idaho, Nebraska, North Dakota, Texas and Washington.

Project Goal: Reduce losses from ZC to economically sustainable levels by development of a comprehensive, environmentally responsible disease management program
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Seven Priority Focus Areas:

1) Detection, Vector/Pathogen Diversity and Disease Etiology
2) Epidemiology
3) Pest Management
4) Breeding
5) Economics
6) Risk Assessment/Disease Forecasting
7) Technology Transfer

Each Priority Focus area will be supported by a series of specific objectives
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At least six anticipated *Deliverables* from the Project:

1) Best management practices (BMP)
2) A ZC risk assessment/disease forecasting model
3) Germplasm with demonstrated tolerance to ZC
4) Economic models with cost/benefit analyses and best-case/worst-case scenarios
5) Extension publications, demonstration trials, educational and training programs dealing with all aspects of ZC
6) Scientific data that will be useful to regulatory agencies in development of Pest Risk Assessments for ZC.
**ZC Specialty Crop Research Initiative**

- The ZC SCRI project is planned for five years.
- We are requesting approximately $6M from CSREES.
- A 1:1 match of cash or in-kind support is required.

*If unsuccessful in securing this grant, continuation of existing research on ZC is jeopardized!*