

# ***Salmonella* Braenderup and *Salmonella* Worthington in Mangoes: Traceback and Product Actions**

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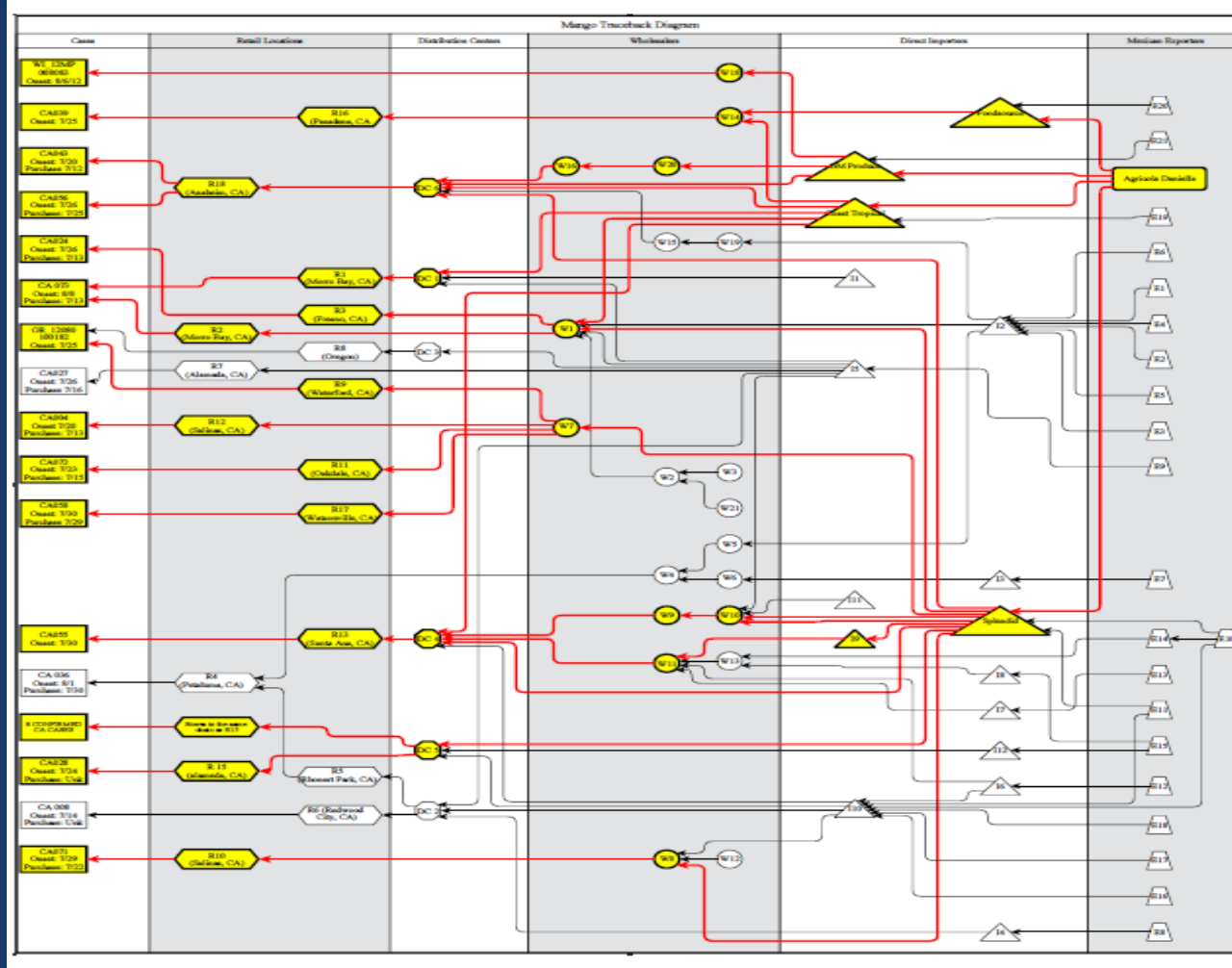
InFORM 2013, San Antonio, TX

# FDA Response Activities

## 8/24/2012-10/23/2012

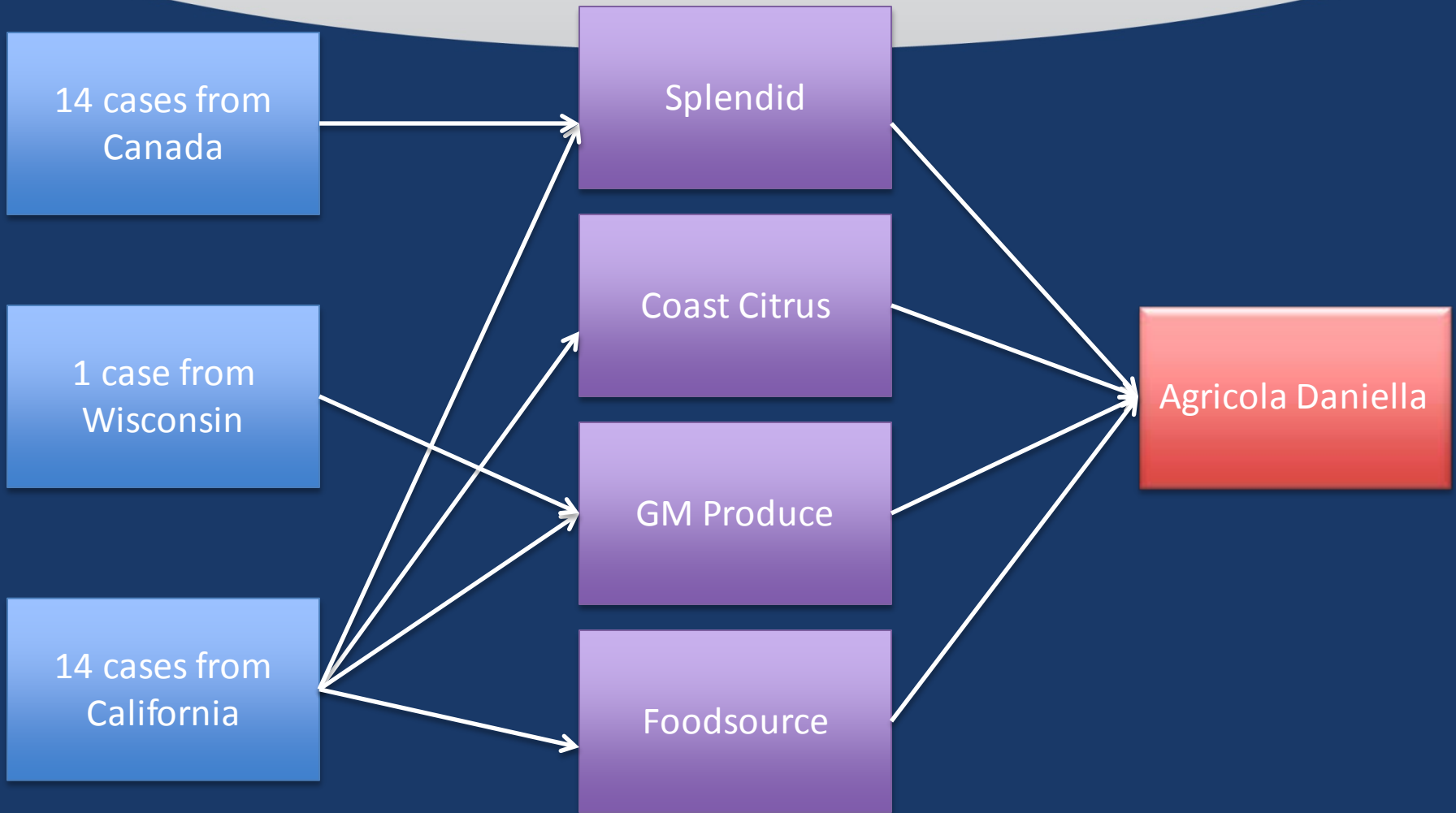
- FDA Traceback activities began after the health advisory alert was issued by Canada
- FDA worked closely with CA state officials
  - ★ **CDPH served as lead agency on traceback investigation**
  - ★ **FDA worked to supply information on supply chain locations outside of CA**
- Based on epi, traceback and laboratory findings, FDA pursued regulatory action

# The Complex Traceback



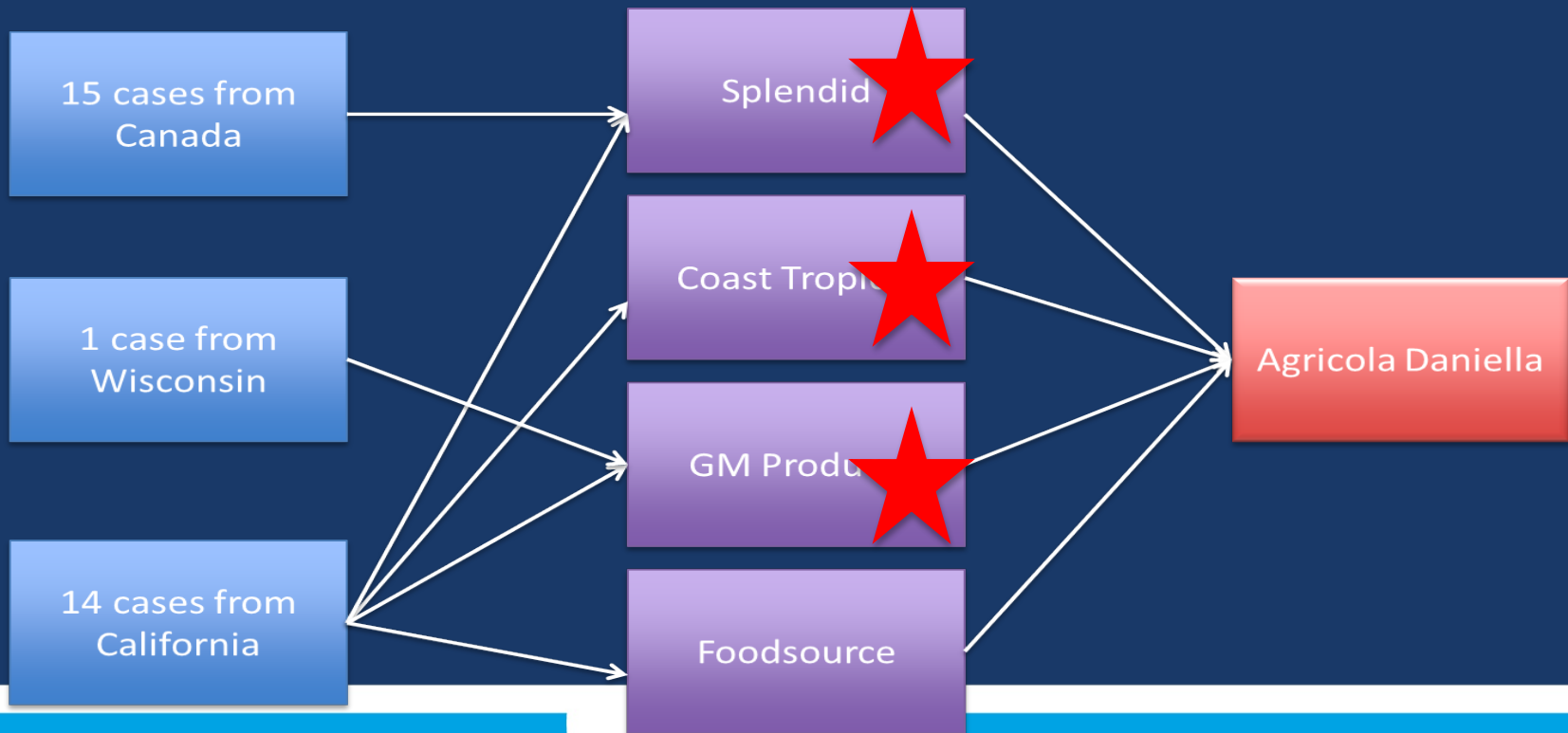
Courtesy CDPH Food and Drug Branch

# A Simplified Look



# Positive *Salmonella* Samples

- Based on locations identified by traceback, samples were collected along the supply chain



# Positive *Salmonella* Samples

- None of the *Salmonella sp.* isolated from the mangoes were a match to either outbreak strain
- 3 of the positive mango samples were collected by FDA
- 1 of the positive samples was collected by an importing firm
- Environmental sampling-
  - ★ Due to travel restriction imposed by the Department of State, FDA was unable to visit Agricola Daniella and perform environmental sampling

# FDA Regulatory Actions

- Recall
  - ★ Twenty-four firms recalled products
  - ★ Major recalls by 4 importers
  - ★ No recall by grower
- Agricola Daniella placed on FDA Import Alert
  - ★ Firm voluntarily suspended operations during the investigation
  - ★ The firm has since been removed from the import alert due to significant improvements made to prevent future contamination issues

# Challenge #1: Product Labeling

- Mango Brand Names and Labeling

- ★ Mangoes from Agricola Daniella were labeled with the following brand names:

Daniella	Twins
Five Sisters	Porvenir
Coast Tropical	Tomorrow's Tropical
Marathon	

- All brand names (except Daniella) were supplied by multiple mango growers
- Due to product comingling, there was no way for consumers to know what was from Daniella, and what came from other suppliers



# Challenge #2: Public Communication

- Given the labeling issue presented in Challenge #1, how can we inform the public with consideration to product industry?
- This challenge highlights the importance for improved product traceability
  - ★ FDA FSMA Section 204: ENHANCING TRACKING AND TRACING OF FOOD AND RECORDKEEPING
- Improved traceability may help:
  - ★ Improve product traceback in response to an outbreak
  - ★ Narrow the scope of implicated product, protecting growers or suppliers not involved in a contamination incident

## Challenge #3: International Firm

- This outbreak highlights the need for international traceback training
- Given there were no positive samples matching the outbreak strain, it was difficult for the firm to understand traceback findings
- FDA CORE has coupled with the Joint Institute for Food Safety and Applied Nutrition (JIFSAN) to provide information on traceback methods to international partners

# Conclusions

- Epidemiological and traceback evidence support the finding that mangoes supplied by Agricola Daniella were the source of this outbreak.
- Additional findings of *Salmonella sp.* contamination of mangoes supplied by the firm support the role of the firm in this incident.
- Continue outreach with international partners on outbreak investigation techniques

# Acknowledgements

- State Public Health and Regulatory Partners
  - ★ California Department of Public Health- Food and Drug Branch
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- CDC
- Canadian Public Health and Regulatory Partners
- Mexican Public Health and Regulatory Partners