

# Forest Pest First Detectors

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UNIVERSITY OF MINNESOTA  
**EXTENSION**

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# Overview

- Emerald Ash Borer (EAB) & other forest invasive species of special concern
- Ash in Minnesota
- First Detector Network
- Trainings & Development
- Results



# Emerald Ash Borer

Photo by Pugnom



D. Cappaert, MSU





# Cooperative Emerald Ash Borer Project

Initial county EAB detections in Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New York, Ohio, Pennsylvania, Tennessee, Virginia, Wisconsin, West Virginia and Canada

June 3, 2013

**DISCLAIMER:** These data and all the information contained therein have been collected by the U.S. Department of Agriculture, Animal and Plant Health Inspection Service (APHIS), and are provided to you by APHIS in cooperation with the State of Minnesota. These data are for informational purposes only and do not constitute a warranty of any kind, either expressed or implied. All information contained within these data are subject to required federal safeguards and shall not be shared with third parties without the express written consent of APHIS. These data are provided in accordance with the Privacy Act of 1974, as amended (5 U.S.C. 552a), the Freedom of Information Act (5 U.S.C. 552), the confidentiality provisions of the Food Security Act of 1985 (7 U.S.C. 2202), Section 1076 of the Food, Conservation, and Energy Act of 2008 (7 U.S.C. 1701), and other applicable Federal laws and implementing regulations, as well as with the confidentiality or other provisions of any other agreement entered into between APHIS and a cooperator.

Data source:  
U.S. Department of Agriculture  
Animal & Plant Health Inspection Service  
Pest, Production & Quarantine  
(2013-06-03-09:00)  
Cooperator: Pest Inspection Agency (PIA)



0 50 100 200 Miles

**Map Key**

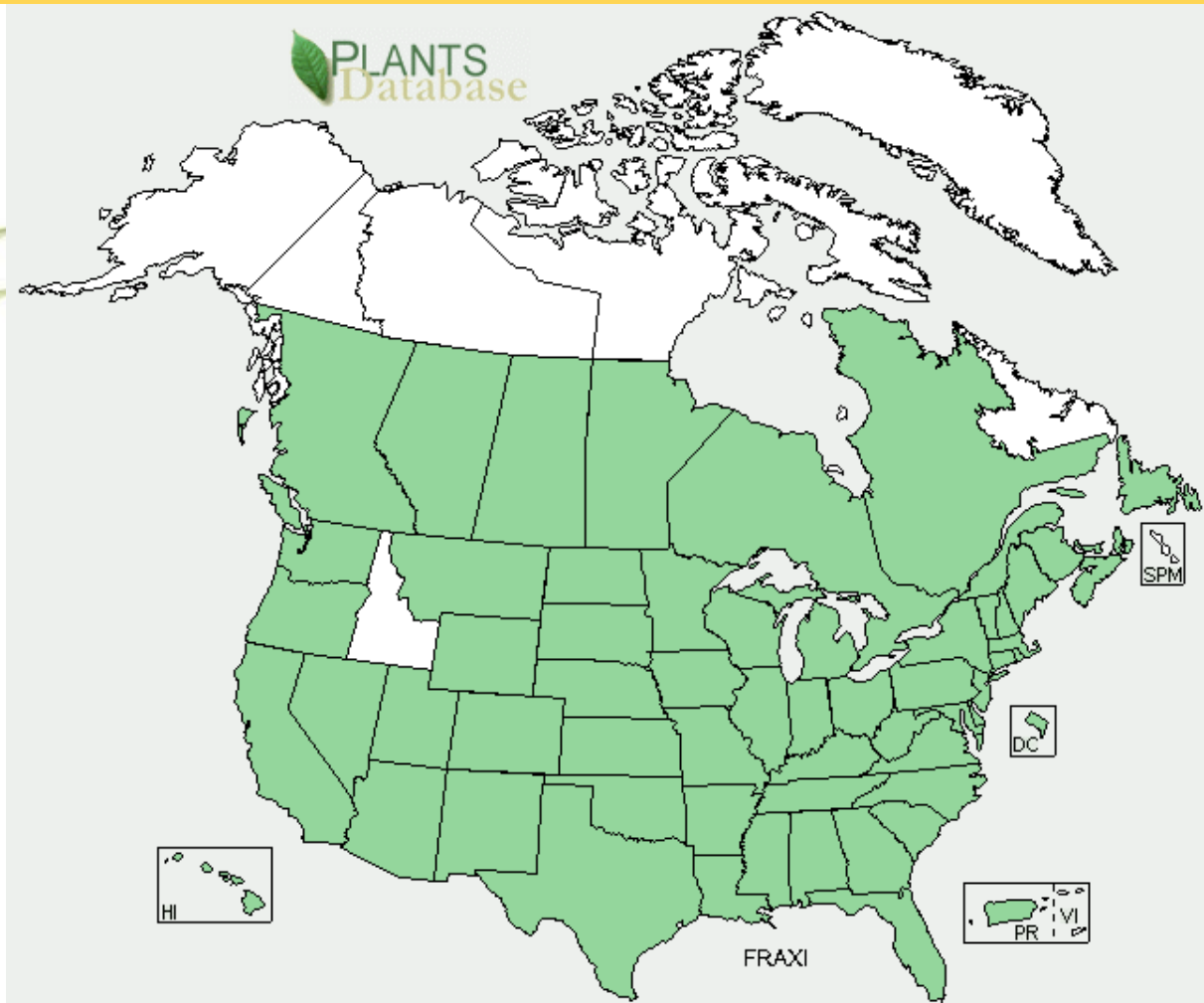
- Initial county (A) detection
- Federal EAB quarantine boundaries
- State quarantine-generally infested area
- State quarantine (M)
- State quarantine-other (MI)
- National Forests
- Canadian EAB regulated areas

USDA/APHIS  
June 3, 2013  
10:15:00 AM





# Native Ash in US



Map from USDA NRCS

Wood & phloem-boring insects are likely to cause **\$1.7 billion** in economic impacts annually to local governments plus **\$830 million** lost in residential property value.\*

\*Aukema JE, Leung B, Kovacs K, Chivers C, Britton KO, et al. (2011) Economic Impacts of Non-Native Forest Insects in the Continental United States. PLoS ONE 6(9): e24587. doi:10.1371/journal.pone.0024587

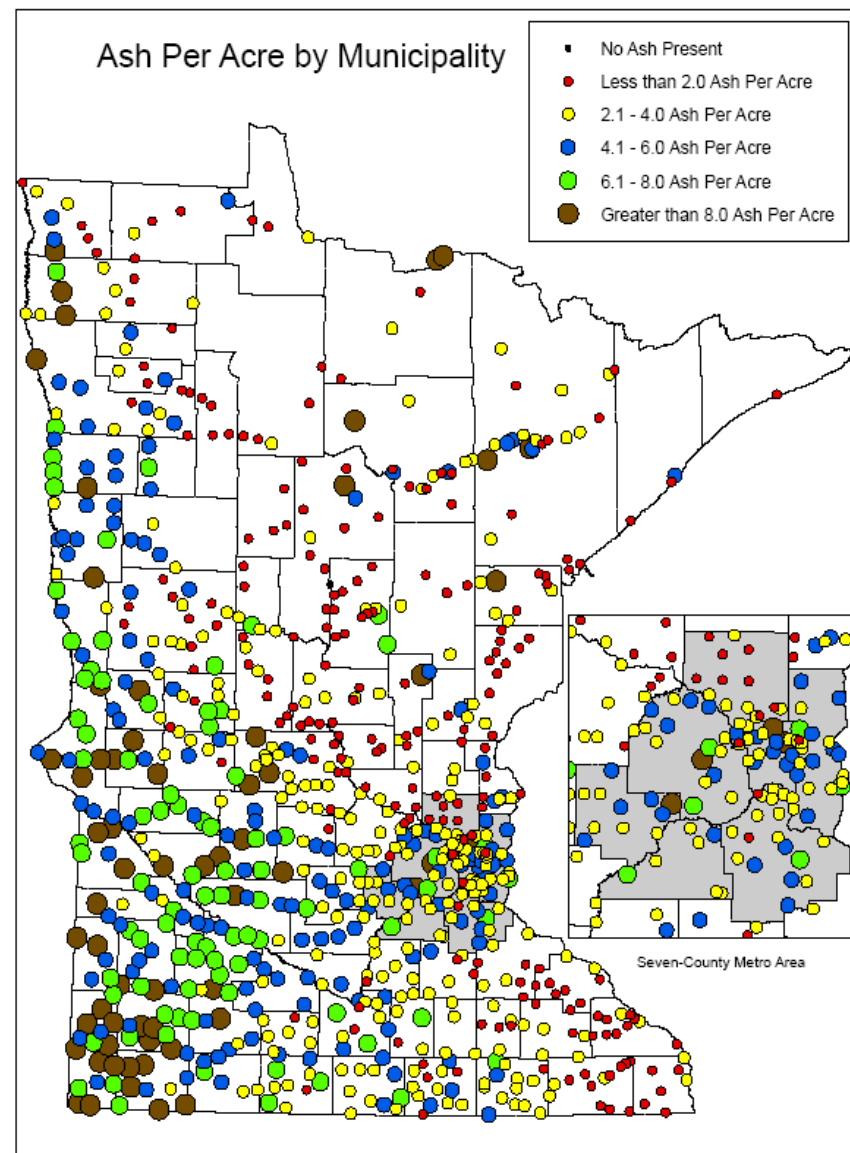


# Ash in Minnesota

## Communities – green ash

Big Fork	8% of all trees
Eveleth	15%
Deer River	24%
Grand Rapids	30%
Int'l Falls	50%
Hibbing	50%

S. Katovich, USDA Forest Service



D. Cappaert, MSU



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# Other Forest Pests



Gypsy Moth



Asian Longhorn Beetle



Thousand Cankers Disease



# First Detector Network

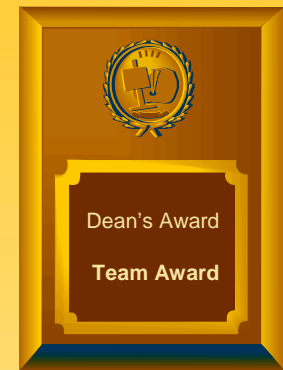


- Plant disease and pest diagnostic facilities across the US
- Promote awareness & detection of plant pests
- First Detector Training, a National Model





# Training & Development – A Collaboration

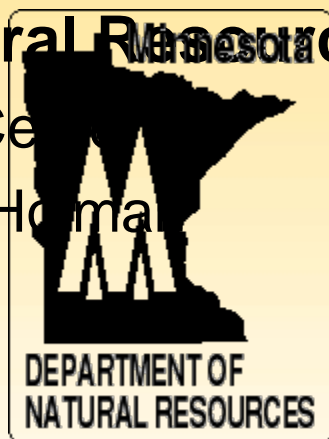


- **Minnesota Department of Agriculture**

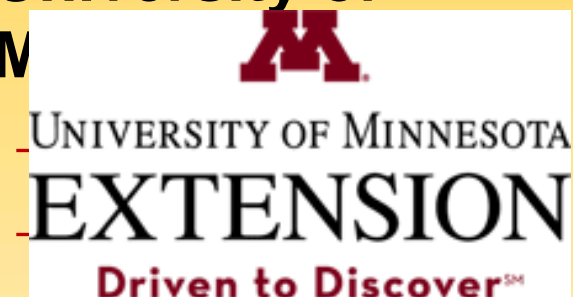


- **Minnesota Department of Natural Resources**

- Val C...
- Ken Ho...



- **University of Minnesota**



- Dean Herzfeld
- Gary Johnson
- Amy Mayer



# Training – Volunteer Responsibility

- Increase detection efforts of MDA
- Volunteer for early detection
- Create awareness about forest/tree pests



# Training - Program Goals

- One day training
- First Detection of pests: local, County & region
- Tree Inspector exam
- Educate the public





# Training - Sites

## Workshop Sites:

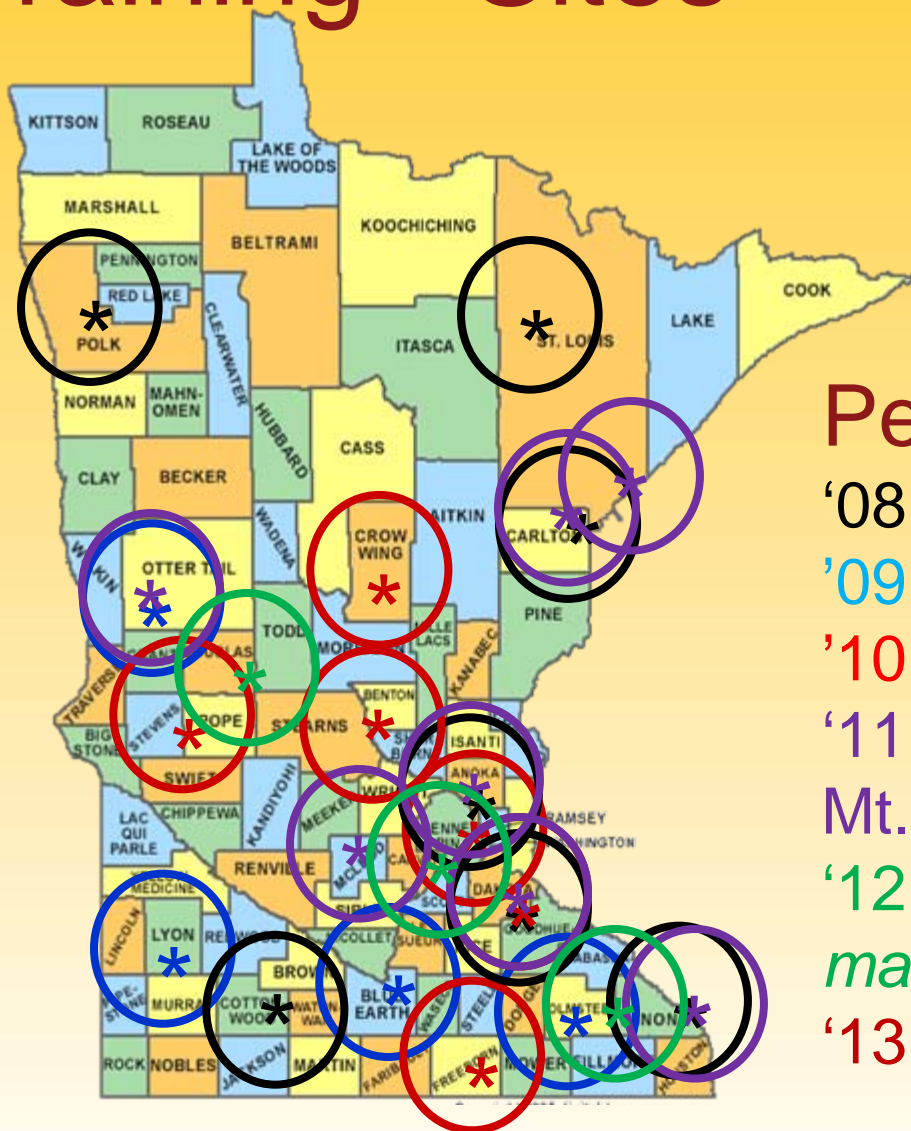
2008

2011

2009

2012

2010



## Pests by Year:

'08: EAB

'09: EAB, GM, ALB, *Sirex*

'10: EAB, GM, ALB, TDC

'11: EAB, GM, ALB, TCD, BOB, Mt. PB, *Vib. leaf beetle* & OB

'12: EAB, GM, ALB, TCD, *brown marmorated stink bug* & OB

'13: Same as '12 + Imprelis



# Training - Target Audience

People with prior Forest or Tree experience and knowledge

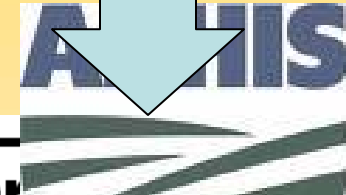
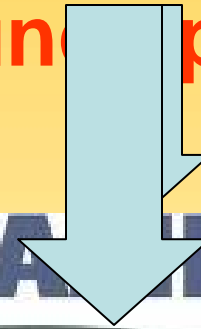
- Forestry & Arboriculture professionals
- MN Certified Tree Inspectors
- Tree Care Advisors
- Master Volunteers



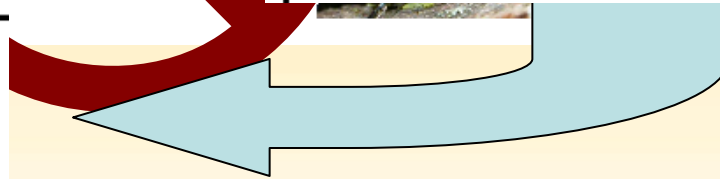
# Activities - Detection



**Detectors NEVER announce pest!**



Sample Management





# Activities – What do First Detectors do?



Photo degeerelle

UGA1460046



 MINNESOTA DEPARTMENT OF AGRICULTURE www.mda.state.mn.us	Minnesota Department of Agriculture 625 Robert St. N., St. Paul, MN 55155-2518	<b>SAMPLE</b>
	Plant Protection Division, Ph: 651-201-6505, Fx: 651-201-6108	

## EAB First Detector Report Log

EAB FIRST DETECTOR NAME Mark Abrahamson

DATE	CONTACT NAME	PHONE	DID CHECKLIST
5-12-08	Irma Beetle	555-555-5555	NO
MAILING ADDRESS		EMAIL	
1234 Hole in the Wall Ave Bugville, MN 55555		ibeele@bug.org	YES 5-13
REPORT SUMMARY		RESOLUTION	
1) Email Report: Reported finding an emerald green insect in grass under oak tree 2) Called back after reviewing materials		1) Sent to EAB website to review checklist 2) Contact determined the bug was a tiger beetle.	
5-13-08	John Doe	UNKNOWN	YES
MAILING ADDRESS		EMAIL	
UNKNOWN		jd@computer.org	
REPORT SUMMARY		RESOLUTION	
1) Email report: Reports on oak tree w/ thin crown & epicormic sprouts - did review materials		1) Returned email on 5-13 asking for other contact information & whether a sample can be obtained.	
5-13-08	La Public	555-555-5555	NO
MAILING ADDRESS		EMAIL	
1234 A-Road, A-Town, MN 55555		None	
REPORT SUMMARY		RESOLUTION	
1) Phone Report: reports a dying tree		1) Told contact that materials will be sent to them to verify tree id & symptoms 2) Sent email 5-13 requesting materials.	

In accordance with the Americans with Disabilities Act, an alternative form of communication is available upon request.  
 TTY: 1-800-657-3129. 508(a) is an equal opportunity employer and provider.

AG-0111 01/2008



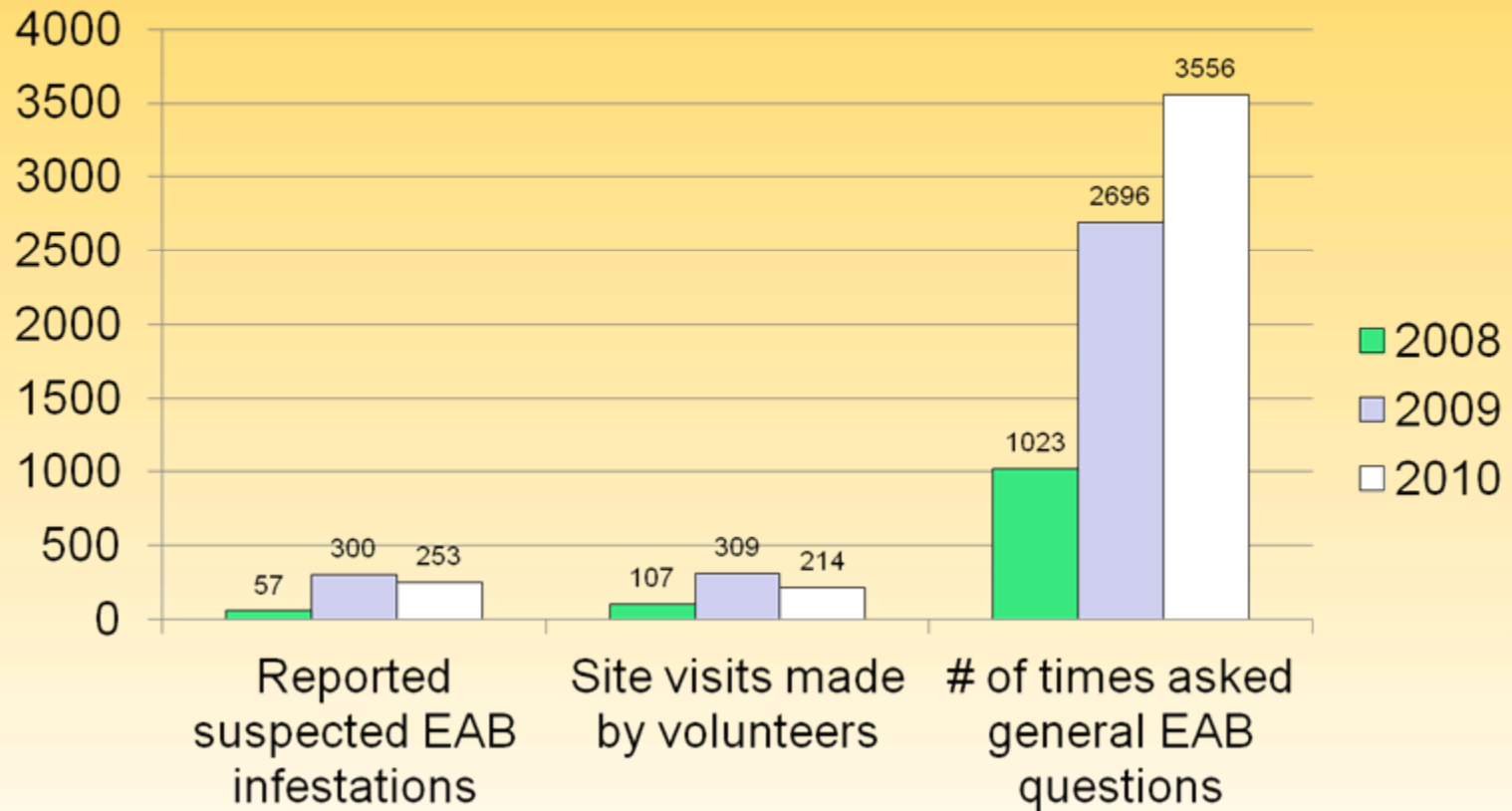
# Reported Results

- First EAB in MN!  
(St. Paul, 2009)
- First gypsy moth caterpillar MN! (Duluth, 2010)
- 538 active FD volunteers
  - 64 out of 87 counties have First Detectors
  - Including people from all neighboring states
- First Detectors reported:
  - In 2010, 97% wanted to be First Detectors in 2011



# 2010 First Detector Survey Results

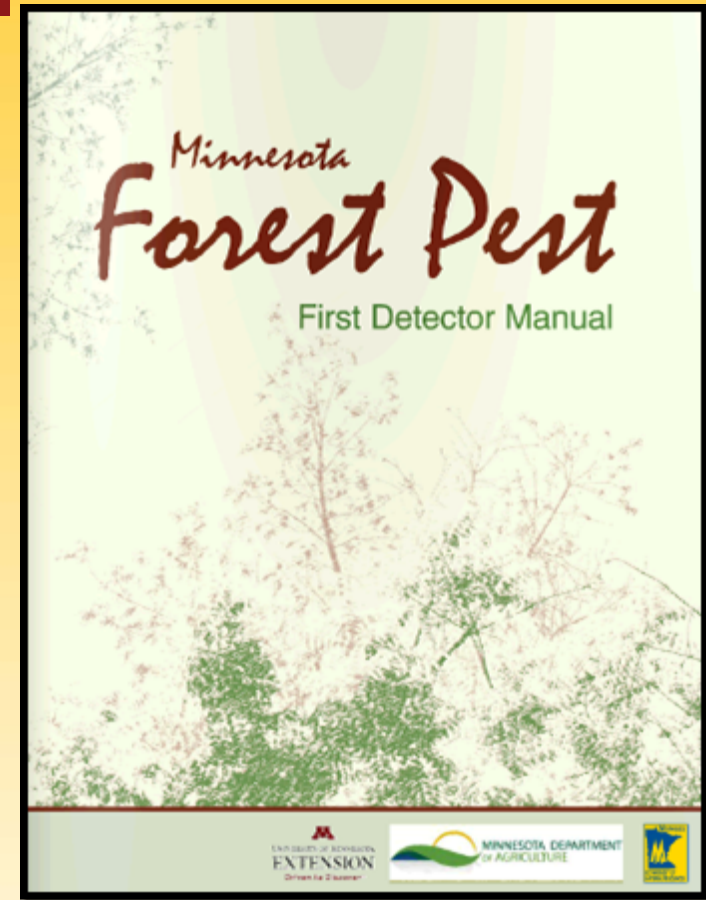
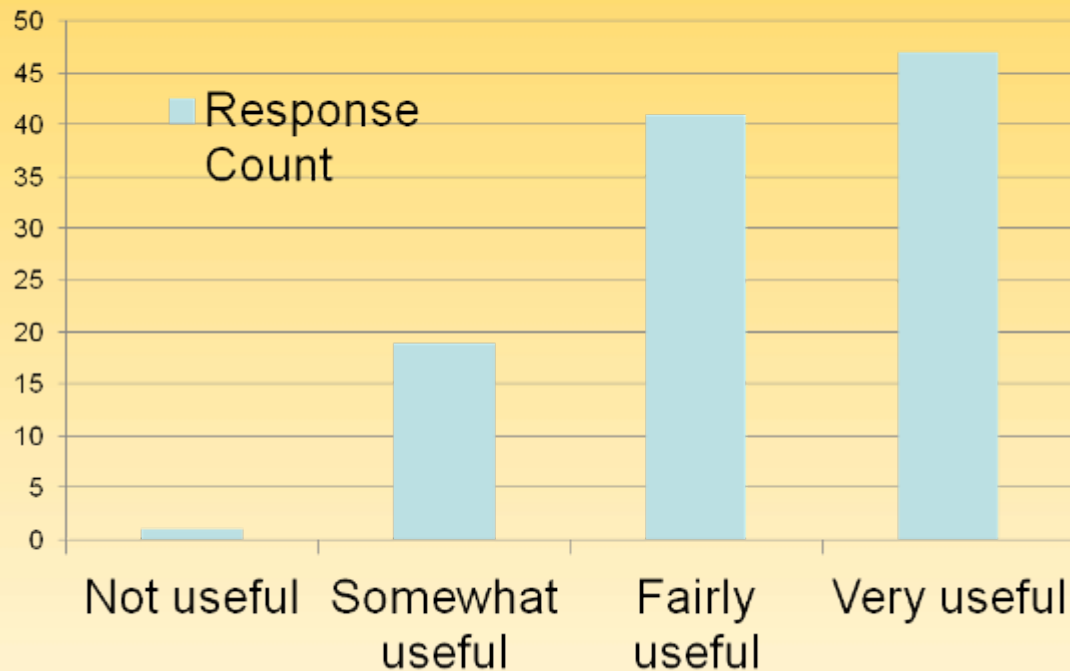
## Forest Pest First Detector Program Outcomes





# First Detector Manual

## Usefulness of FD Manual



Available on-line:

[http://issuu.com/mnstsc/docs/forest\\_pest\\_manual\\_feb\\_2011\\_opt](http://issuu.com/mnstsc/docs/forest_pest_manual_feb_2011_opt)



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# Results

- In 2010
  - FD volunteered 1316 hours
  - FD traveled 7733 miles

**Total Public Value**

**~\$29,000**

**&**

**Involved in EAB & GM finds**

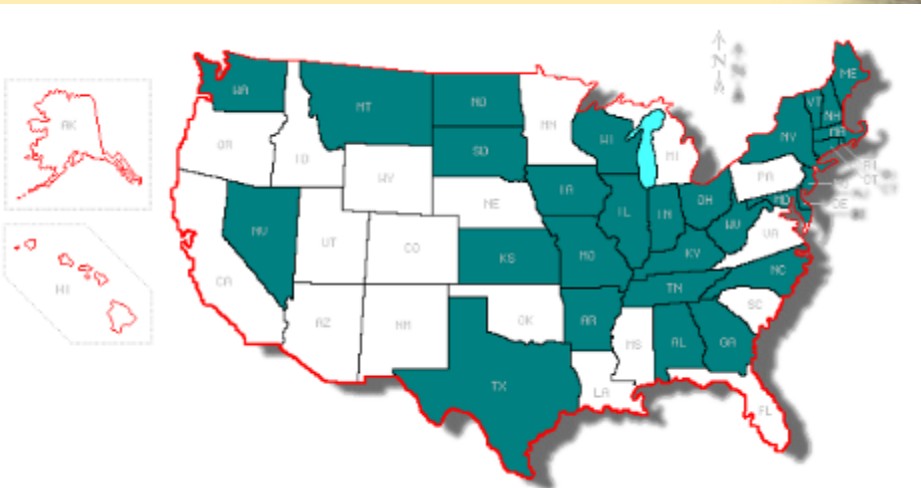


# U.S. First Detector Programs

- 41 (84%) programs include forest pests
- Three most common First Detector pests:
  - EAB (61%) (30 states in all 5 regions)
  - Sudden Oak Death (53%)
  - Thousand Cankers Disease (39%)

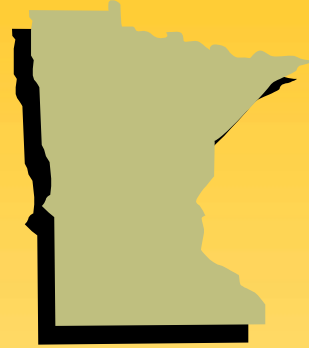


Photo:  
Daniel Herms,  
The Ohio State University, Bugwood.org





# National Study Results



*6 States (12%) said MN model impacted their programs*

## Respondents volunteered comments

- 13 (26%) mentioned funding concerns
- 10 (20%) mentioned the value of “more eyes”
- 5 (10%) mentioned the value of interstate collaboration



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## Minnesota Forest Pest First Detector Program

2013 Forest Pest First Detector Workshops have been scheduled. Registration now open.

Please read through all the information to the bottom on this page.

[2013 Forest Pest First Detector Information Brochure \(PDF\)](#)

## NEW! Looking for Volunteers to Survey for Oriental Bittersweet.

Scroll to the very bottom of this page for all the details about the oriental bittersweet survey opportunity.



<http://z.umn.edu/FPFD>



For more information contact:

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