

CSREES Air Quality Program

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National Program Leader

November 29, 2006



USDA-CSREES Air Quality Research Investments

	<u>2005</u>	<u>2006</u>	<u>2007</u>
NRI	5,300,000	4,970,000	4,970,000
SBIR	318,959	?	?
Hatch	~2,073,000	>2,073,000	>2,073,000
Multi-state	(~975,765)	(>975,765)	(>975,765)
Special Grants	2,148,878	3,247,200	*0
CA-1	(374,099)	(396,990)	0
WA	(362,120)	(383,130)	0
TX	(835,769)	(1,558,260)	0
IA	(248,164)	(263,340)	0
PA	(328,726)	(348,480)	0
CA-2		(297,000)	0
Total	\$9,840,837	\$10,290,200	\$7,043,000

*Special grants have been zeroed-out in the President's budget

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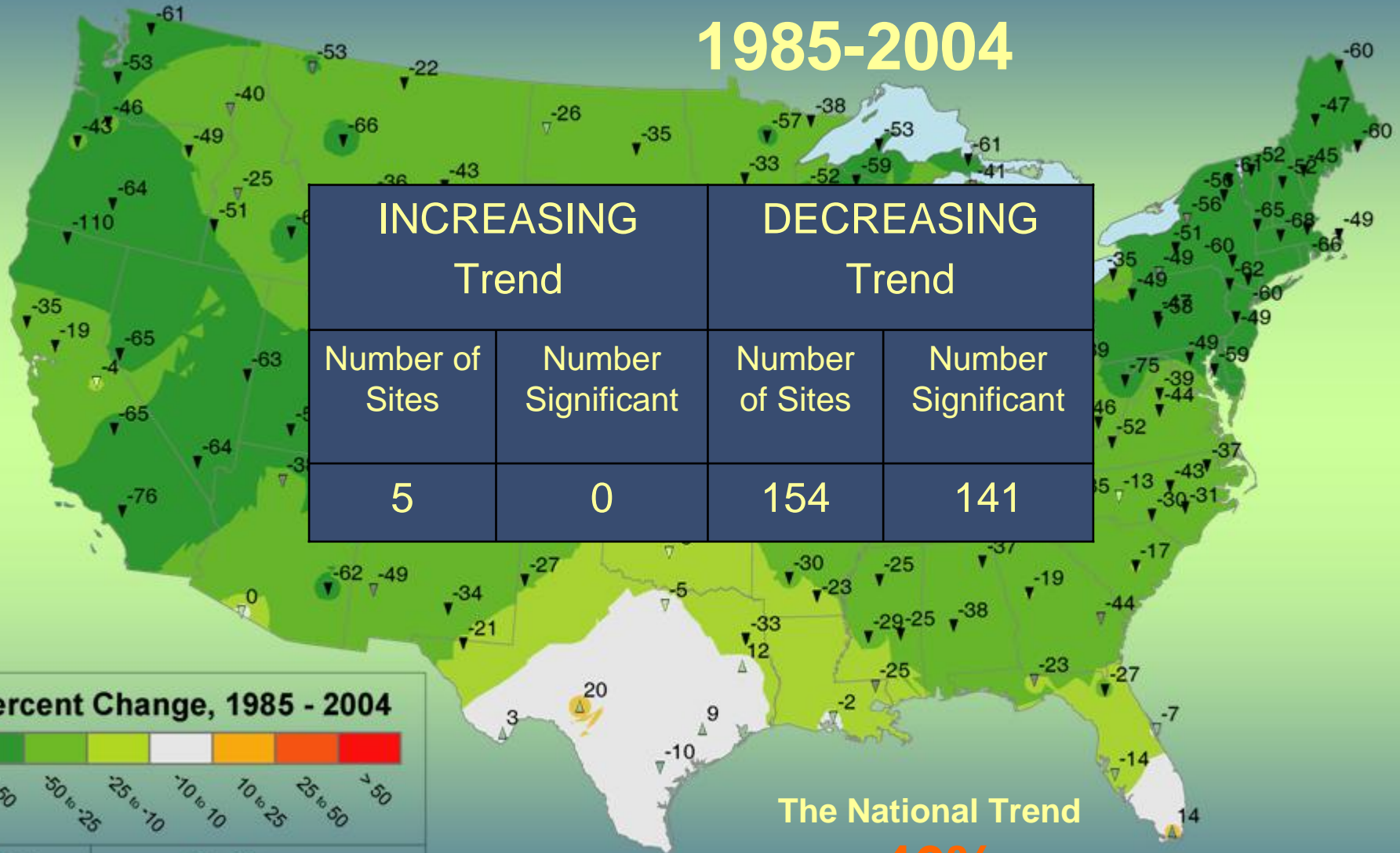
Table 4. (continued)

USDA/CSREES Research Milestones*

Research & Development Activity	2005	2006	2007	2008	2009	2010
By 2007, Generate comprehensive PM emission inventory for production agriculture						
Research on characterizing and estimating agricultural emissions						
An updated inventory of agricultural emissions						
By 2007, Generate best practices for reducing agricultural PM emissions						
Research on developing best practices to reduce agricultural emissions						
Complete document of recommended best practices						
By 2010, Have a better understanding of the fate and transport of agricultural PM						
Research on fate and transport of PM on component farm processes such as corrals, buildings, etc.						
Research on fate and transport of PM for whole farm enterprises and development of process-based models.						
By 2010 Evaluate implementation of best practices and create PM emission reduction targets						
Transfer technologies to producers to mitigate emissions						
Develop emission reduction targets						

* For more information see USDA/CSREES' Air Quality Program([http://www.csrees.usda.gov/air quality](http://www.csrees.usda.gov/air_quality))

NADP/NTN Sulfate Trend 1985-2004



Percent Change, 1985 - 2004



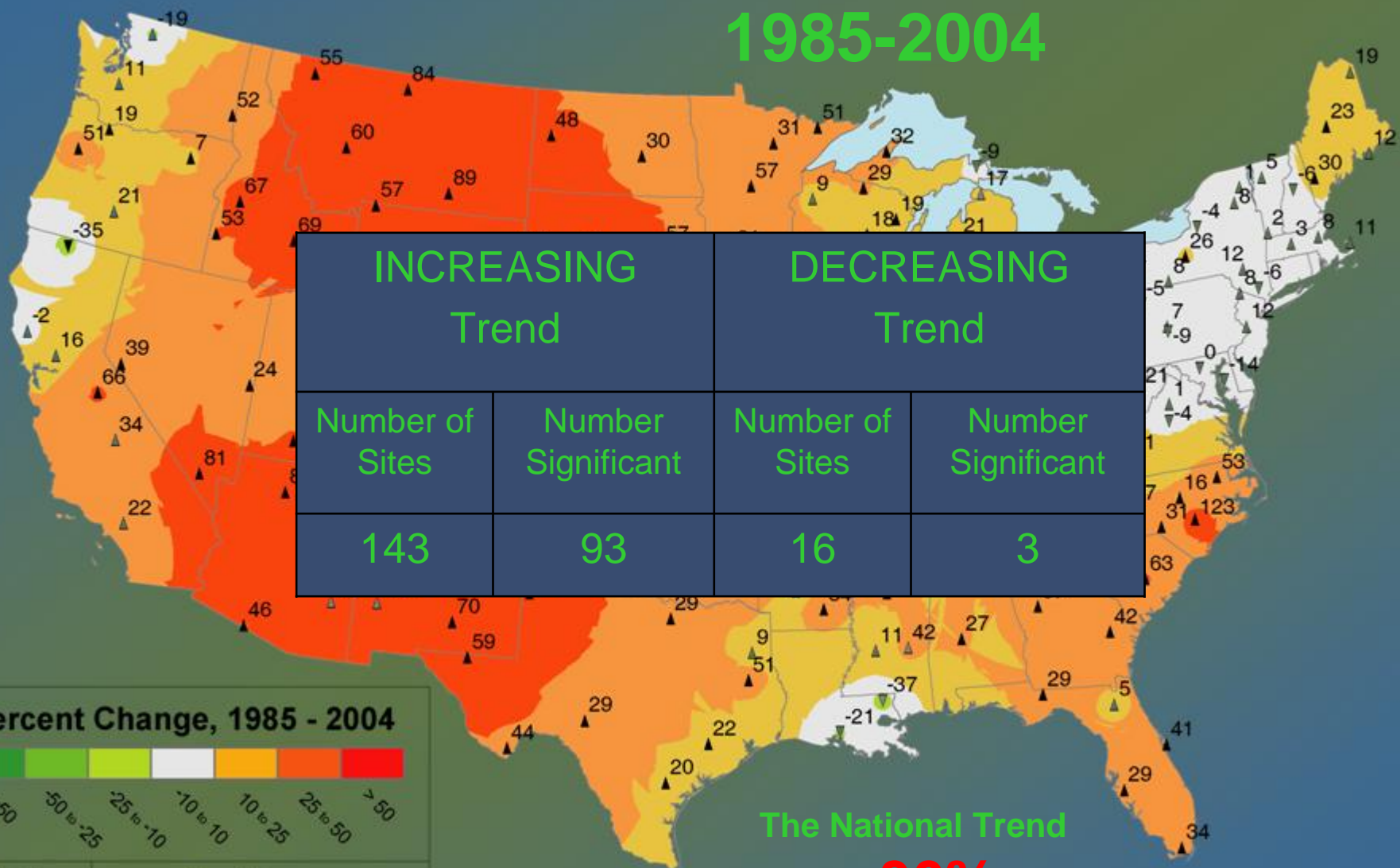
Trend	Significance
▲ Increasing	■ Significant and Homogeneous
▼ Decreasing	■ Significant, not Homogeneous
	□ Not Significant

The National Trend

-46%

(median change)

NADP/NTN Ammonium Trend 1985-2004



INCREASING Trend		DECREASING Trend	
Number of Sites	Number Significant	Number of Sites	Number Significant
143	93	16	3

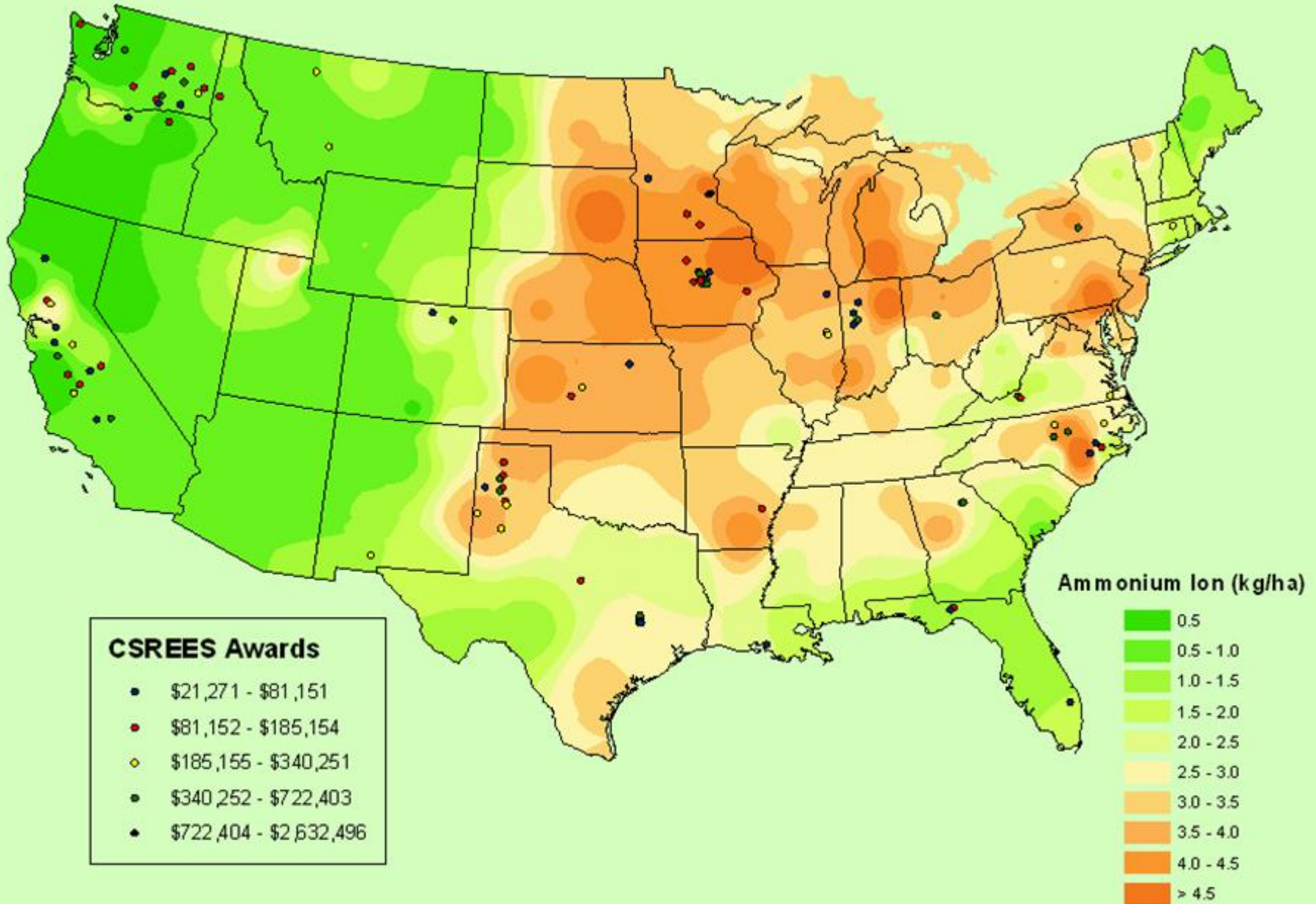
Percent Change, 1985 - 2004



The National Trend
+ 30%
 (median change)

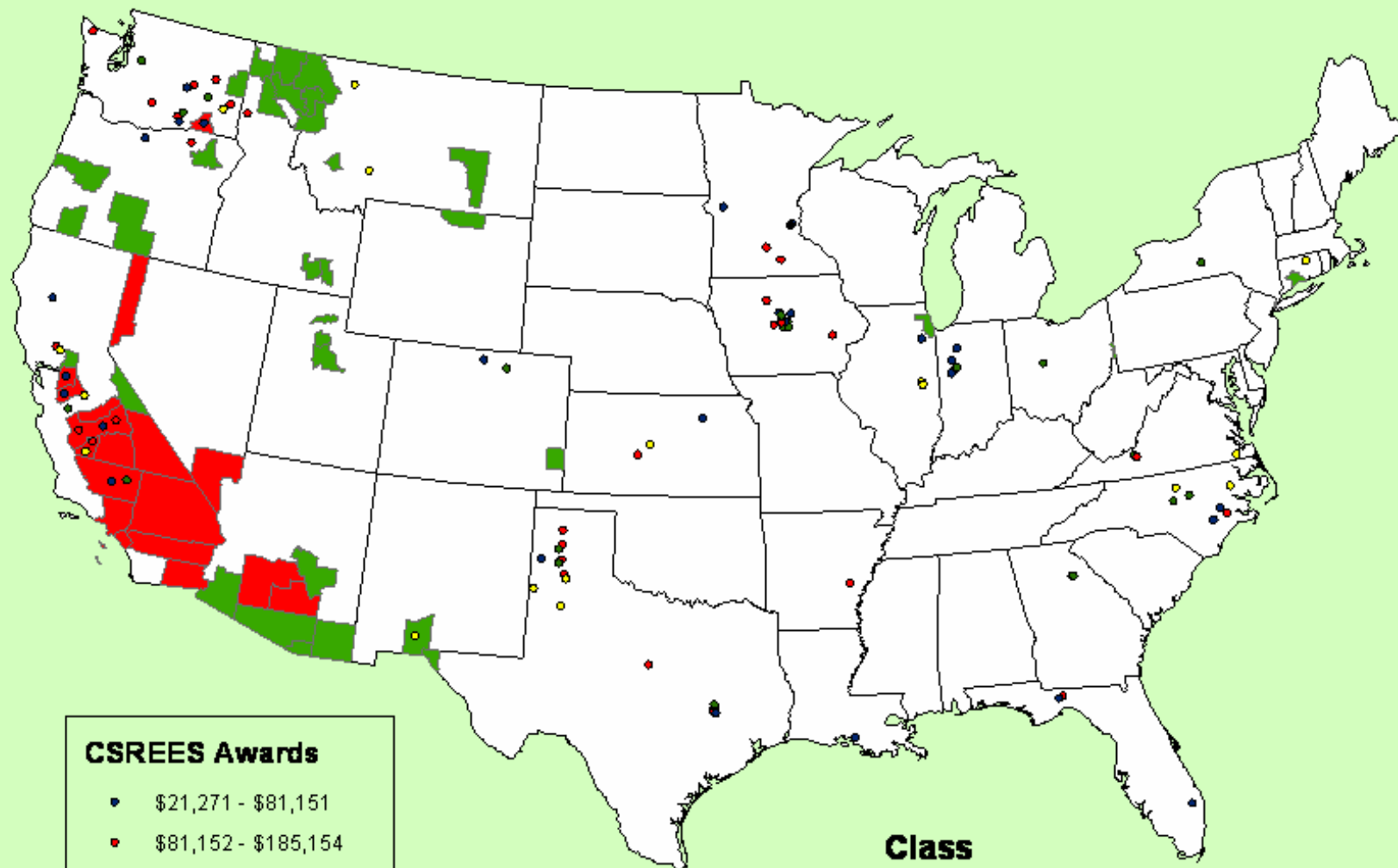
Trend	Significance
▲ Increasing	■ Significant and Homogeneous
▼ Decreasing	■ Significant, not Homogeneous
	□ Not Significant

Ammonium Ion Wet Deposition - 2004



Data Source: <http://nadp.sws.uiuc.edu/maps/2004/>

Non-Attainment Areas PM-10



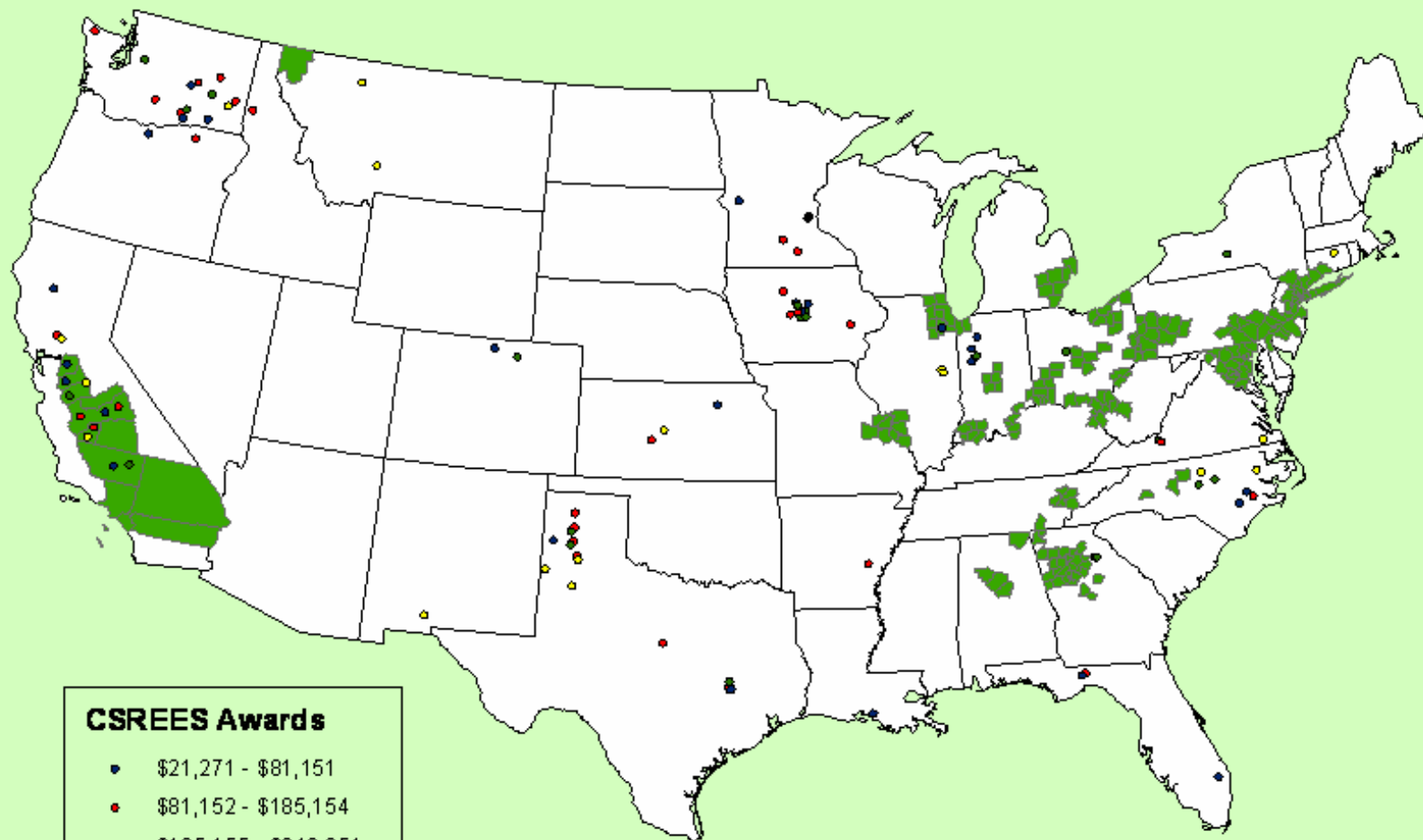
CSREES Awards

- \$21,271 - \$81,151
- \$81,152 - \$185,154
- \$185,155 - \$340,251
- \$340,252 - \$722,403
- \$722,404 - \$2,632,496

Class

- Moderate
- Serious

Non-Attainment Areas PM-2.5



CSREES Awards

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- \$81,152 - \$185,154
- \$185,155 - \$340,251
- \$340,252 - \$722,403
- \$722,404 - \$2,632,496

Class

■ Nonattainment

NRI Air Quality Program

- Application Due Date - June 5, 2007
- Award Size – up to \$600,000 for 2-4 yrs (integrated)
- Award Size – up to \$400,000 for 2-4 yrs (research)
- Eligibility – All universities and federal research labs
- Integrated program – integrates research, education, and extension
- 60% integrated / 40% research (\$4,970,000)
- 17.5% success rate in 2006

2007 NRI Air Quality Program Emphasis Areas

- Emission data from production practices – particulates, gases/odors (more focus on crop production)
- Improved measurement protocols/instrumentation for within field and edge of field boundaries
- Practices for mitigating emissions
- Fate and transport of emitted particulates and gases

National Air Quality Workshop



- Annual all-investigator meeting
- Presentations on the web and CD to PIs and stakeholders
- Special journal issues on agricultural air quality
- Review document for the National Academy of Science

<http://esa.org/AirWorkshop/>

Questions

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<http://www.csrees.usda.gov/airquality.html>

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