

# The *ipmPIPE*: *Program Update*

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# Outline

- Brief overview of the *ipm***PIPE**.
- Discussion on the current and near future status of the *ipm***PIPE**.
- Summary.



# *ipm*PIPE

- First conceptualized by USDA-APHIS in response to soybean aphid threat in North Central US in 2000.
- **PIPE** first put into use during 2005 in response to SBR threat (“Coordinated Framework” > PIPE).
- *ipm*PIPE designation adopted in 2007.
- Currently involves 41 states, 5 Canadian Provinces, and 5 Mexican states.
  - Involves many organizations and 100’s of individuals on an on-going basis.

# ipm PIPE

## COMPONENTS

### 1. Soybean Rust PIPE

*Initiated in 2005*

### 2. Soybean Aphid PIPE

*Initiated in 2006*

### 3. Legume PIPE

*Pilot in 2007*

### 4. "I-PIPE"

*Pilot planned for 2008*

### 5. Proposals presently under consideration

# Foundation of the *ipm*PIPE?

- Non-commercial, unbiased.
- Utilizes state-of-the-art IT.
- Based on traditional IPM template.
- Highly functional and interactive “people component”.
- End-user focused:
  - Ease of use.
  - Availability of near real-time information and recommendations to stakeholders.

# *ipm***PIPE** elements

## IT Platform

- Data management: archiving, historical occurrences.
- Help state specialists determine pest risk.
- Communicate national and state-specific management options to stakeholders.
- Communication of near real-time pest status to stakeholders.

USDA United States Department of Agriculture Pest Information Platform for Extension and Education

Getting Started

SB Rust Observation - 2007-12-12 (Last Update: 12/12/07)

Sign Up For Alerts Dec 12, 2007

Legumes/Kudzu Soybean Rust

SB Rust Observation

SB Rust State Update

Chronology of Positive Detections

SBR Forecast Click For Details...

Management Toolbox

- Tactics - USA
- Guidelines - USA
- GFP Tool
- Insurance Docs
- Commentary Chron

United States Commentary

- ID/Scouting Tools
- Not sure if it is Rust?
- Other SBR Sites
- Hurricane Animations
- Observation Animations
- Partners
- Professional Societies
- Soybean Rust: Scout Before You Spray
- Management
- Website Tutorial
- IPM PIPE General Site

USDA SBR Website

**United States Soybean Rust Commentary** (updated: 12/10/07)

Soybean rust has now been found in 301 counties in the United States. This is the highest number of counties reporting the disease since it was first reported in the continental U.S. in 2004. On December 10th, rust was reported on kudzu in Autauga, Perry, Macon and Dallas counties in Alabama. The disease was also detected on kudzu in Montgomery County, Alabama for the first time since early Spring. On December 9th, soybean rust was reported on kudzu in Bibb County, Georgia. Soybean rust has now been detected in one Province in Canada, in two municipalities in Mexico, and in 19 States and 301 counties in the United States (19 soybean, 33 counties in Alabama, 22 counties in Georgia (14 one county in Indiana (soybean), 14 Kansas (soybean), three counties in Illinois (18 soybean), 26 counties in Mississippi (soybean), four counties in Nebraska (soybean), 12 counties in Oklahoma (soybean), seven counties in Tennessee (soybean), and nine counties in Virginia (soybean), and nine counties in Virginia (soybean), and nine counties in Virginia (soybean).



- Communicate national and state-specific management options to stakeholders.
- Communication of real-time pest status to stakeholders.

USDA United States Department of Agriculture Pest Information Platform for Extension and Education

Getting Started

SB Aphid Observation - 2007-12-12 (Last Update: 11/20/07)

Dec 12, 2007

Legumes/Kudzu Soybean Aphid

SB Aphid Observation

SB Aphid State Update

Management Toolbox

- Guidelines - USA
- GFP Tool
- Insurance Docs
- Commentary Chron

United States Commentary

- University SBA Sites
- USDA SBA Sites
- Private/Industry SBA Sites
- International SBA Sites
- Observation Animations
- Not Sure if it is Soybean Aphid
- Scouting Information
- Other SBA Websites

**United States Soybean Aphid Commentary** (updated: 09/07/07)

Suction trap counts of the soybean aphid continued to drop during the last two weeks of August. Field populations are very reduced and field monitoring is completed or nearly so across most of the midwest. Temperatures across the north central region are predicted to drop and this should trigger the formation of fall migrants. It is difficult to determine if any of the soybean aphids collected in the southern traps are fall migrants as they are morphologically similar to summer migrants.

Much of the southern region has been experiencing drought conditions and double cropped beans and beans of higher maturity class are stressed in these areas. As long as the temperature remains above approximately 55 deg. F the aphids will remain on beans. Lower fall temperatures will also favor aphid growth so there may be the possibility of some larger populations in this region.

Aphids collected in southern Texas on soybeans were sent in for identification. The preliminary identification was that they were *Aphis glycines*, the cotton melon

# *ipm*PIPE elements

## IT Platform

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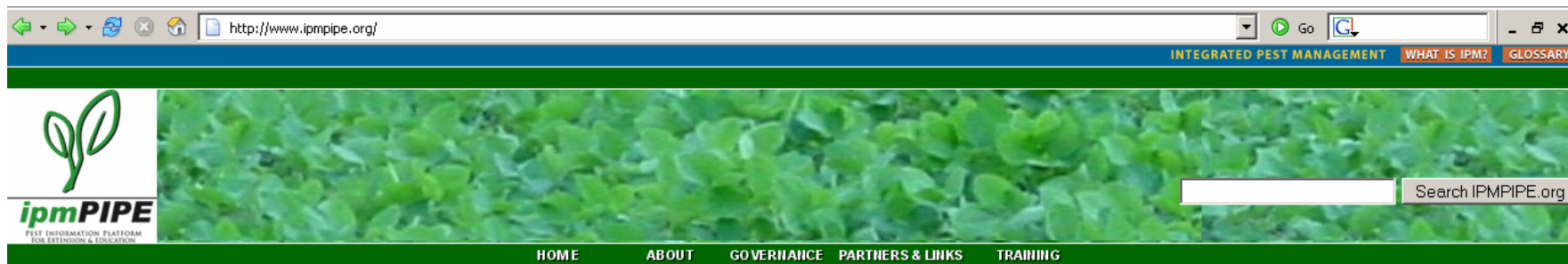
## People

- Extension specialists and agents, crop consultants, agronomists, growers.
- NPDN and industry diagnosticians.
- Research scientists.
- Commodity leaders.
- IT professionals (Zedx).
- Administrators

# *ipm*PIPE Administration

- *ipm*PIPE managed by an Executive Committee (EC) and 22-member Steering Committee (SC):
  - **Representing:** *USDA (APHIS, ARS, CSREES, NRCS, RMA) , LGU: (Admin., Extension, ESCOP, ECOP); industry and commodity groups, NPDN, Regional IPM Centers; National Plant Board, Federal IPM Coordinating Committee, ICCA.*
- Standing and *ad hoc* subcommittees.
- *ipm*PIPE Components run by discipline scientists with oversight by Regional Coordinators, EC, and SC.

# Primary Directive: *Openness and Transparency*



## Request for Applications is Closed

### Mission & Vision:

The mission of IPM PIPE is to realize a dynamic, integrated national system facilitated by information technology that provides centralized, useful tools with reliable information for IPM practitioners. Our vision is to develop the IPM PIPE to help maximize economic returns, and improve social welfare and environmental health by promotion of efficient and coordinated IPM decision support systems.

### Using this Site :

The purpose of this site is to describe the IPM PIPE, to provide a clearinghouse for a number of resources useful to IPM PIPE committees and workgroups, and to otherwise facilitate the development of the IPM PIPE.

To view the functional site for gathering, analyzing, and using national data to manage Asian soybean rust, the soybean aphid, and pest of other legumes, please go to <http://www.sbrusa.net>

**About the IPM PIPE** displays background information on this program, and links to FAQs

**Governance** provides information on our Steering Committee, bylaws, and work group products

**Partners and Links** displays contact information and websites for many of the key partners collaborating in this effort

**Training** includes Powerpoint presentations and other materials for use in learning more about the IPM PIPE and how to use it.

[www.ipmpipe.org](http://www.ipmpipe.org)

located at North Carolina State University, 1710 Varsity Drive, Suite 110,

Southern  
IPM  
Center

# *ipm*PIPE Funding

- 2004-05: Majority funding by USDA-APHIS.
- 2006-08: Majority funding picked up by USDA-RMA.
- USDA grant oversight of federal \$ by CSREES and administered by S-IPM Center (NCSU).
- Significant additional \$ for SBR-PIPE in all years provided by national, regional, local check-off sources, LGU's, and state governments.
- 2008: New components funded by RMA; funding for existing components uncertain beyond 2008.

# Status of SBR-PIPE

- Has worked very well, but is costly.
  - ~\$1.5M annually.
  - Human and system-wide resources.
- Long term funding will likely be significantly reduced beyond 2008
  - Reduce cost by streamlining SBR-PIPE?
  - Keep what we have, but find new, long-term funding source?
  - Somewhere in between?
- Contingency plans are being considered.

# Why expand the *ipmPIPE*?

- ***ipmPIPE* excellent platform for other pest-crop combinations.**
- SBR-PIPE was never sustainable by itself in its present form.
- RMA funding cannot be used for “maintenance”.
- Critical mass:
  - Spread infrastructure costs across all components = more stability for *component PIPE's*.
  - More likely to attain stable funding base.

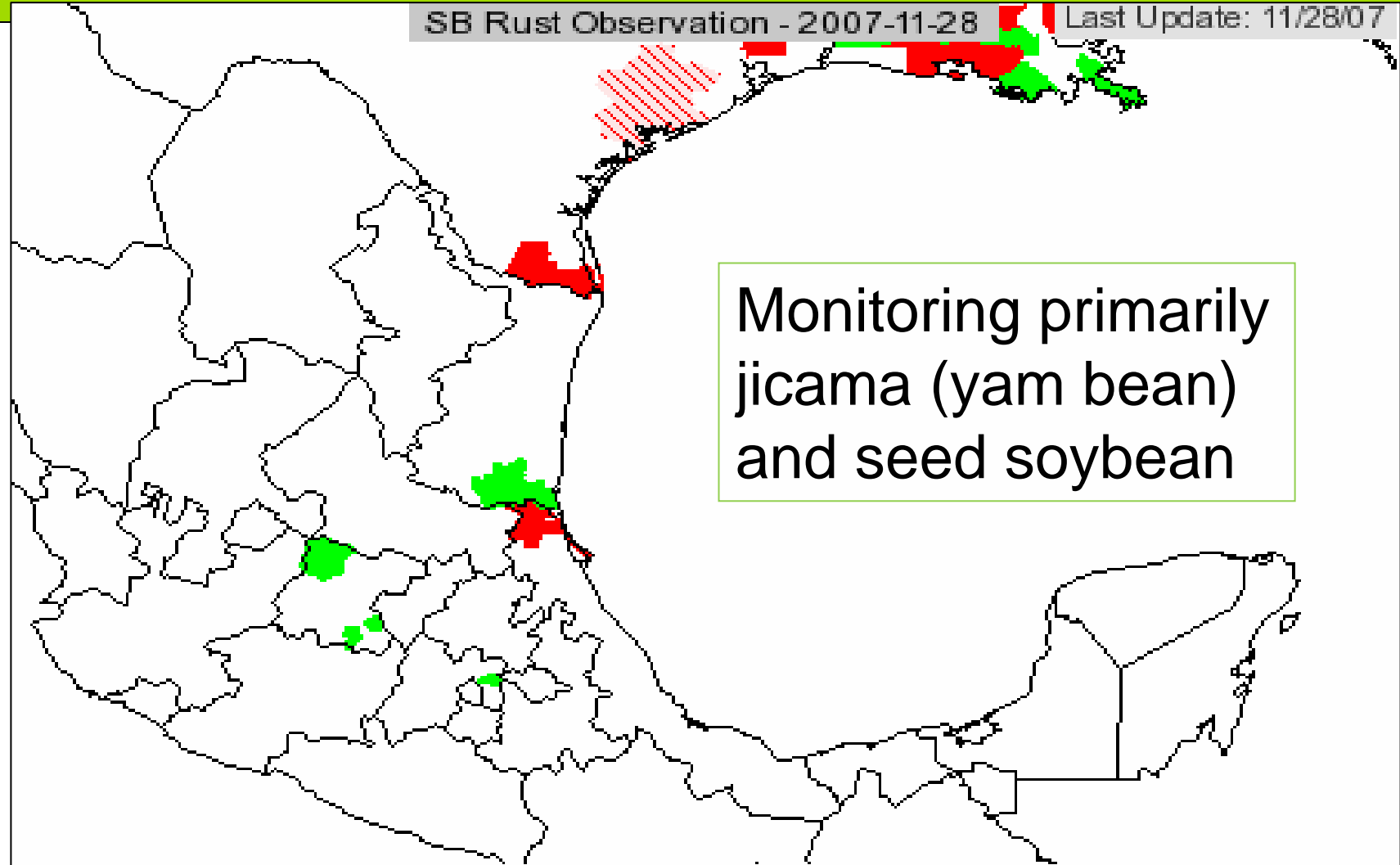
# The Future ?

- Expansion to other crop/pest combinations which are amenable to the *ipm***PIPE**.
  - High value : resource ratio.
- Movement towards less “people intensive”, more efficient pest monitoring.
- Don't expect future *ipm***PIPE** components to look like existing PIPE's.
- International expansion.

# "Mexi-PIPE"

SB Rust Observation - 2007-11-28

Last Update: 11/28/07



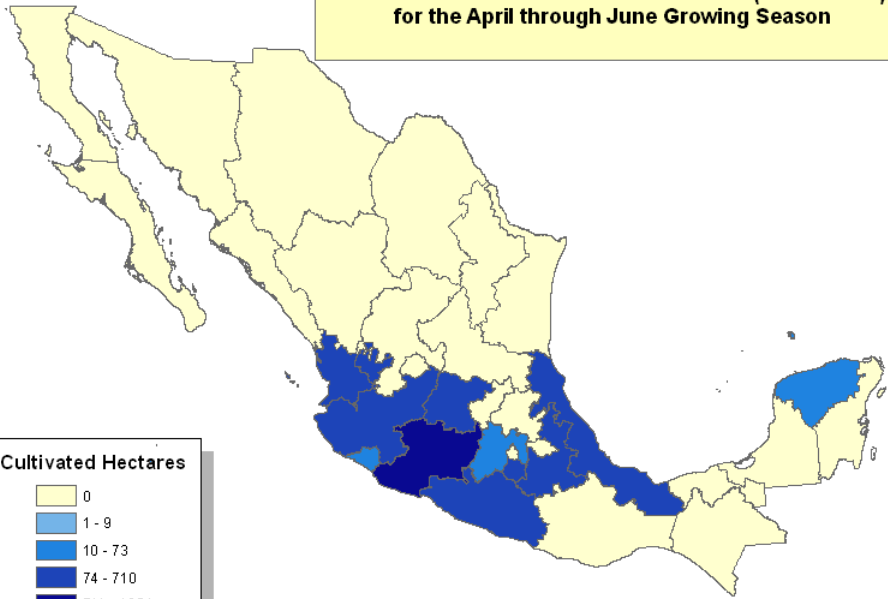
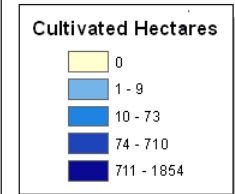
Monitoring primarily  
jicama (yam bean)  
and seed soybean



# YAM BEAN

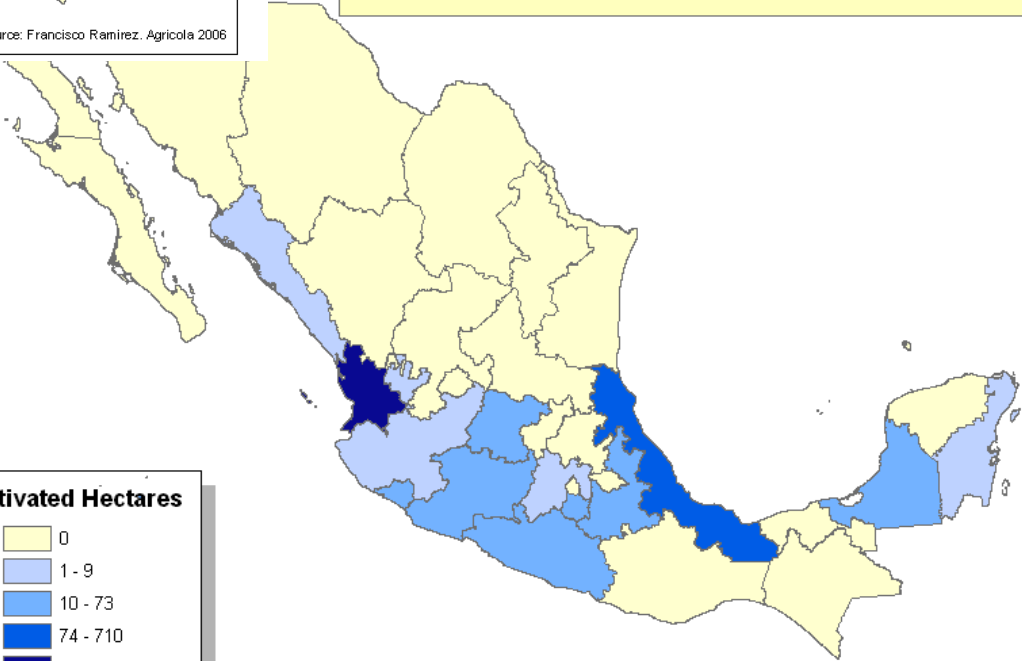
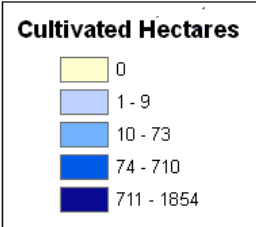


Area under Jicama Cultivation in Mexico ( in hectares) for the April through June Growing Season



Data Source: Francisco Ramirez. Agricola 2006

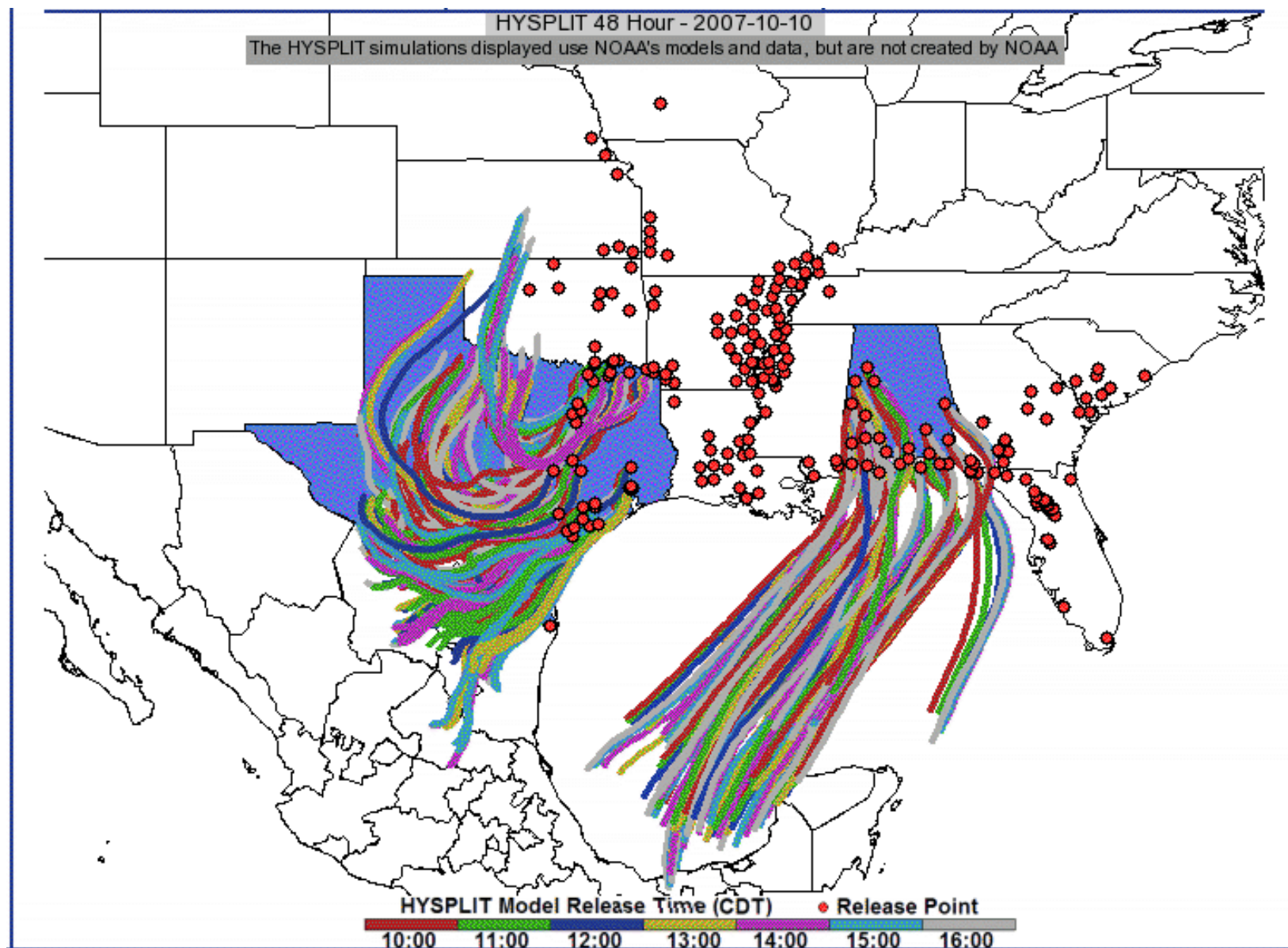
Area under Jicama Cultivation in Mexico ( in hectares) for the November through March growing season



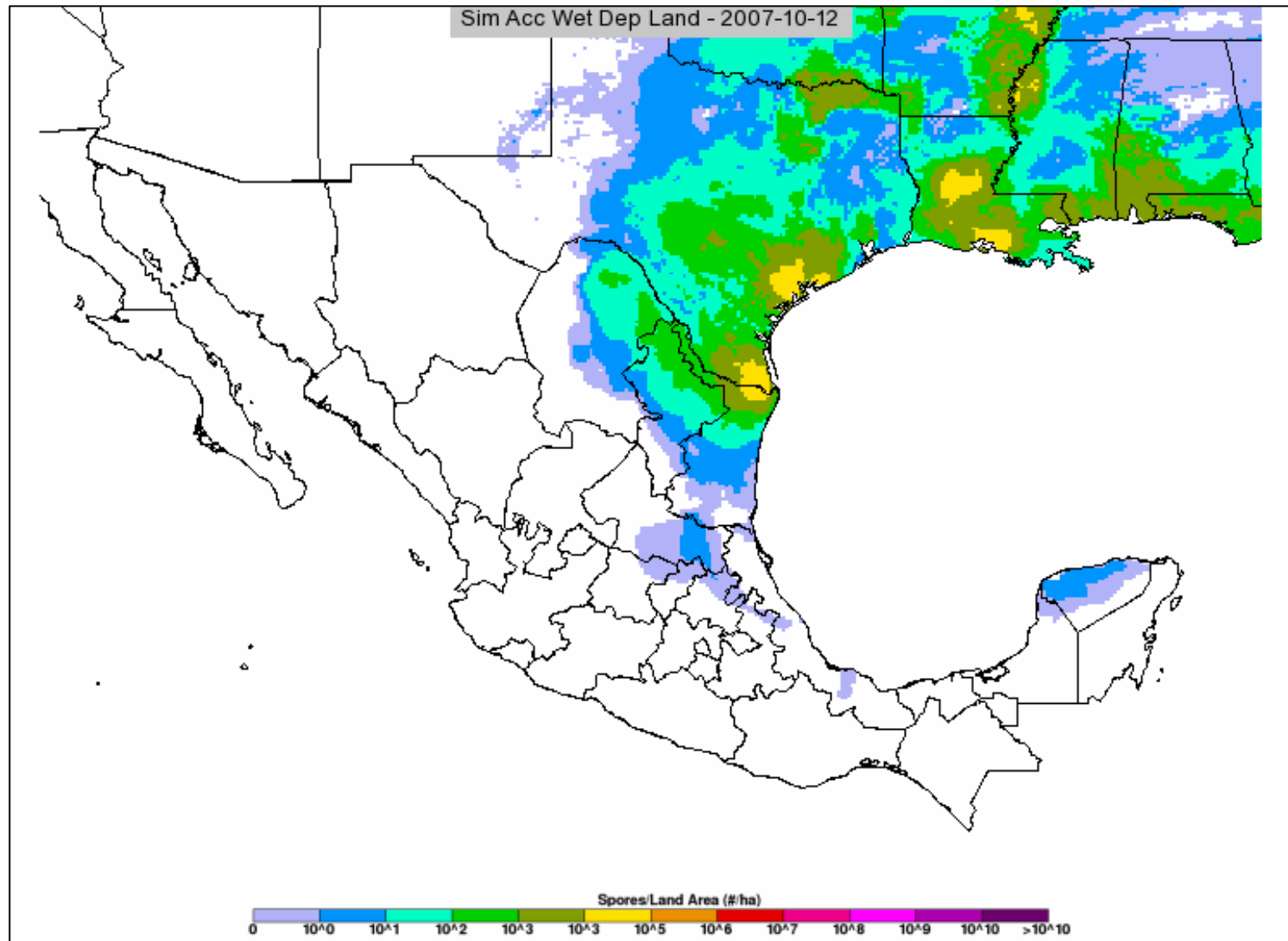
Data Source: Francisco Ramirez. Agricola 2006



# Simulated Transport (HYSPLIT) on October 10<sup>th</sup>, 2007



# Simulated Accumulated Wet Deposition in 2007



# Summary

- *ipm***PIPE** is a multi-crop, multi-pest people-oriented platform using cutting edge IT, and based on a IPM template.
- Used by stakeholders to make better pest management decisions.
- Change for SBR-PIPE was inevitable and is happening; funding beyond 2008 is uncertain.
- International PIPE's on the way.

**THANK YOU !**



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***ipm*PIPE**

PEST INFORMATION PLATFORM  
FOR EXTENSION & EDUCATION