

# **Simulated Pest Risk**

## **An IT Tool for Extension Specialists**

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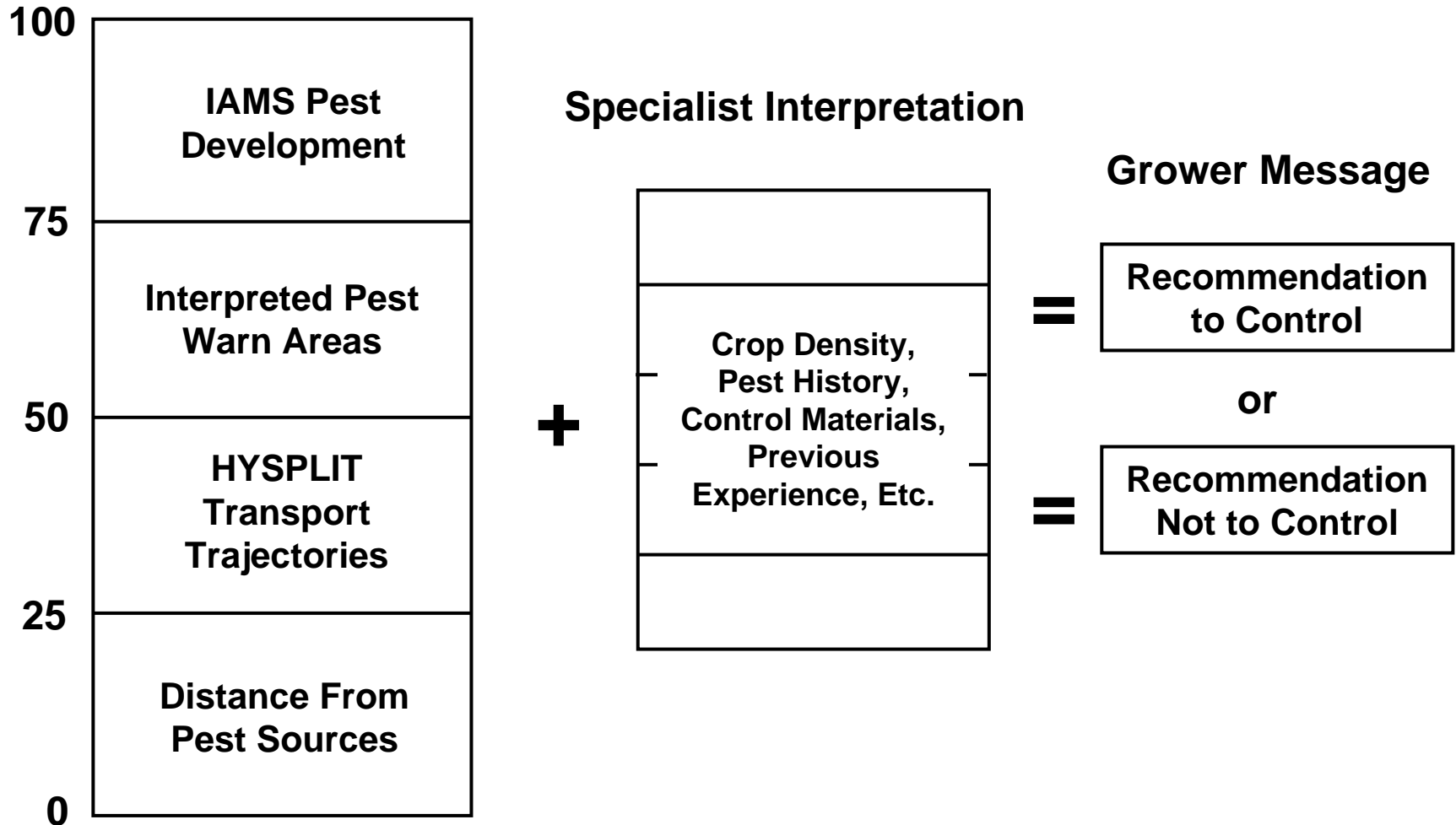
**2007 National Soybean Rust Symposium**  
Louisville, KY  
December 14, 2007

## **Goal of the Simulated Pest Risk**

**The goal of a Simulated Pest Risk or “SPR” is to provide the state extension specialist with an IT tool that automatically provides an assessment of pest appearance at daily temporal and county spatial resolutions.**

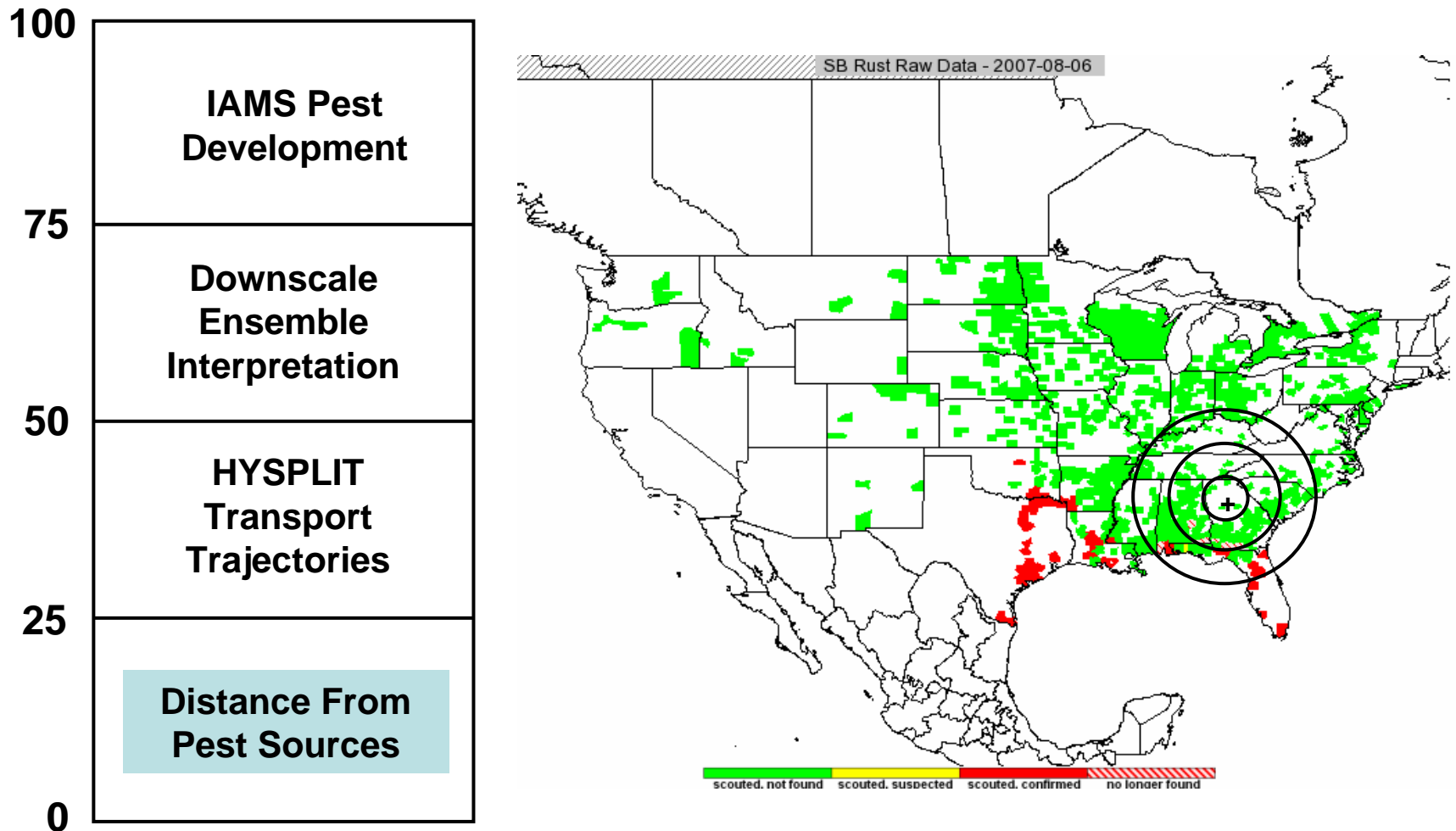
# SPR as an Interpretation Tool

## Integrated Score of PIPE Information Sources



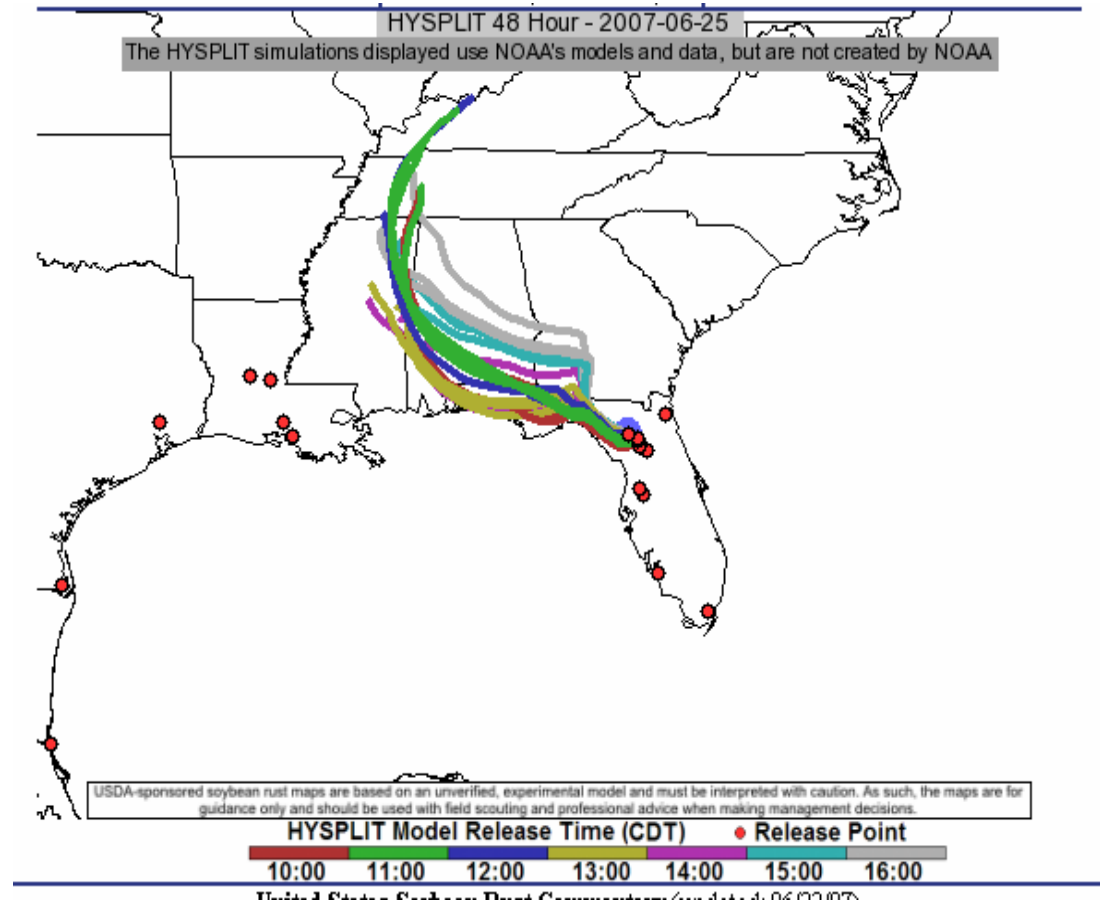
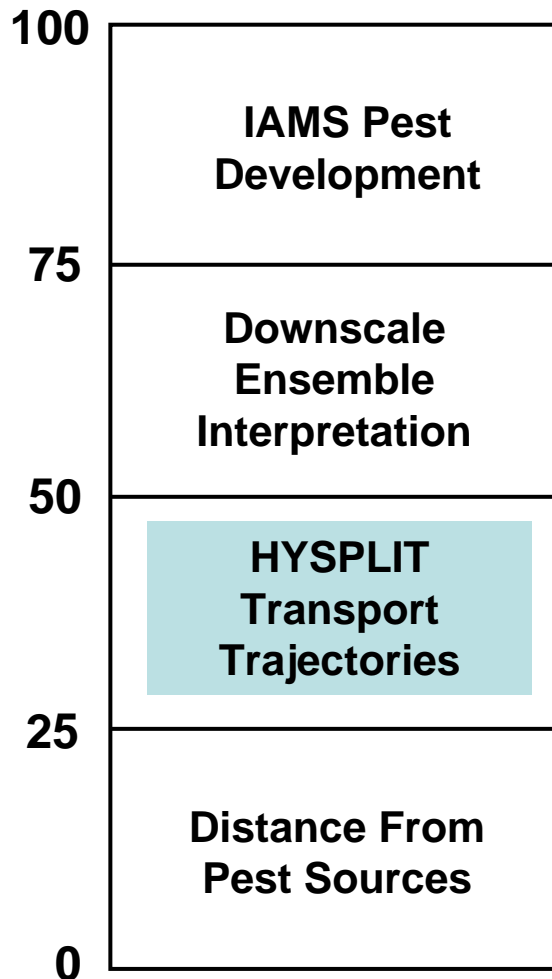
# Design of SPR – Distance From Pest Sources

## Integrated Information Sources



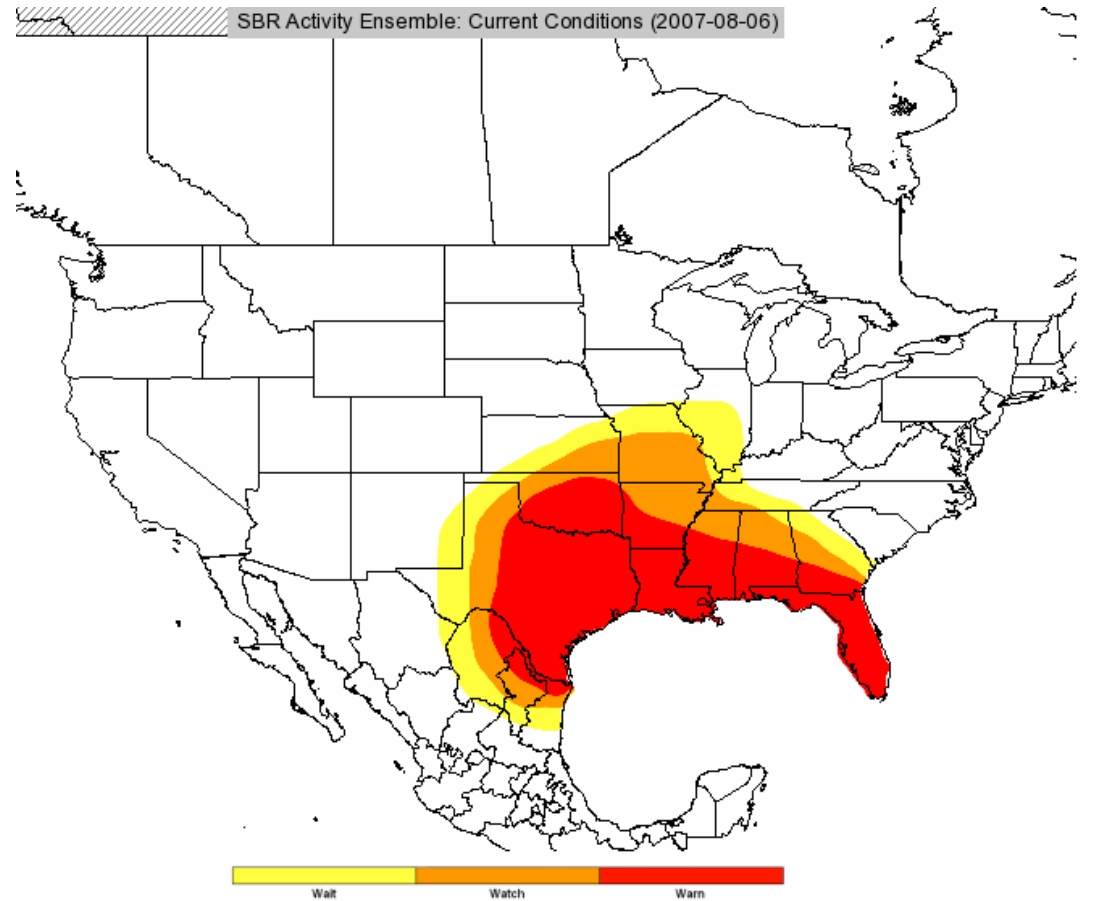
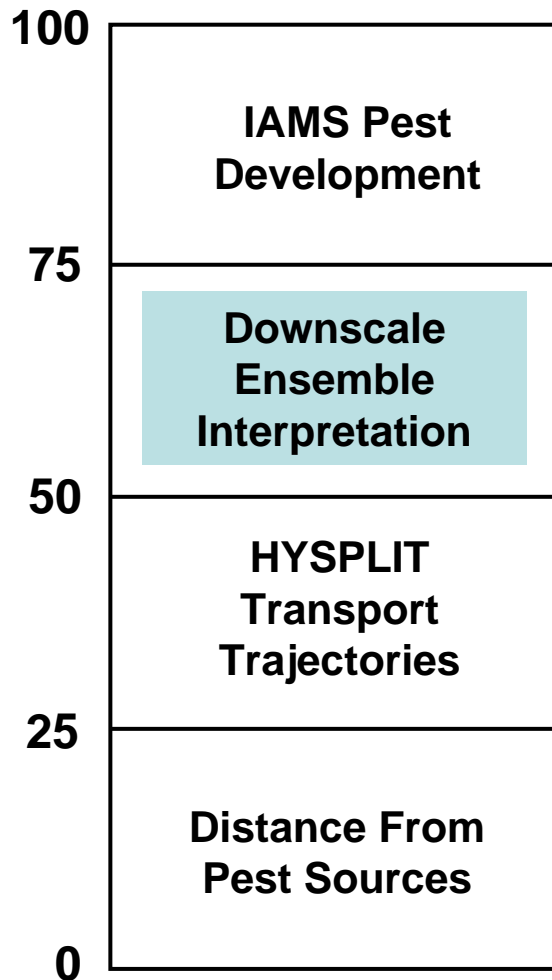
# Design of SPR – HYSPLIT Transport Trajectories

## Integrated Information Sources



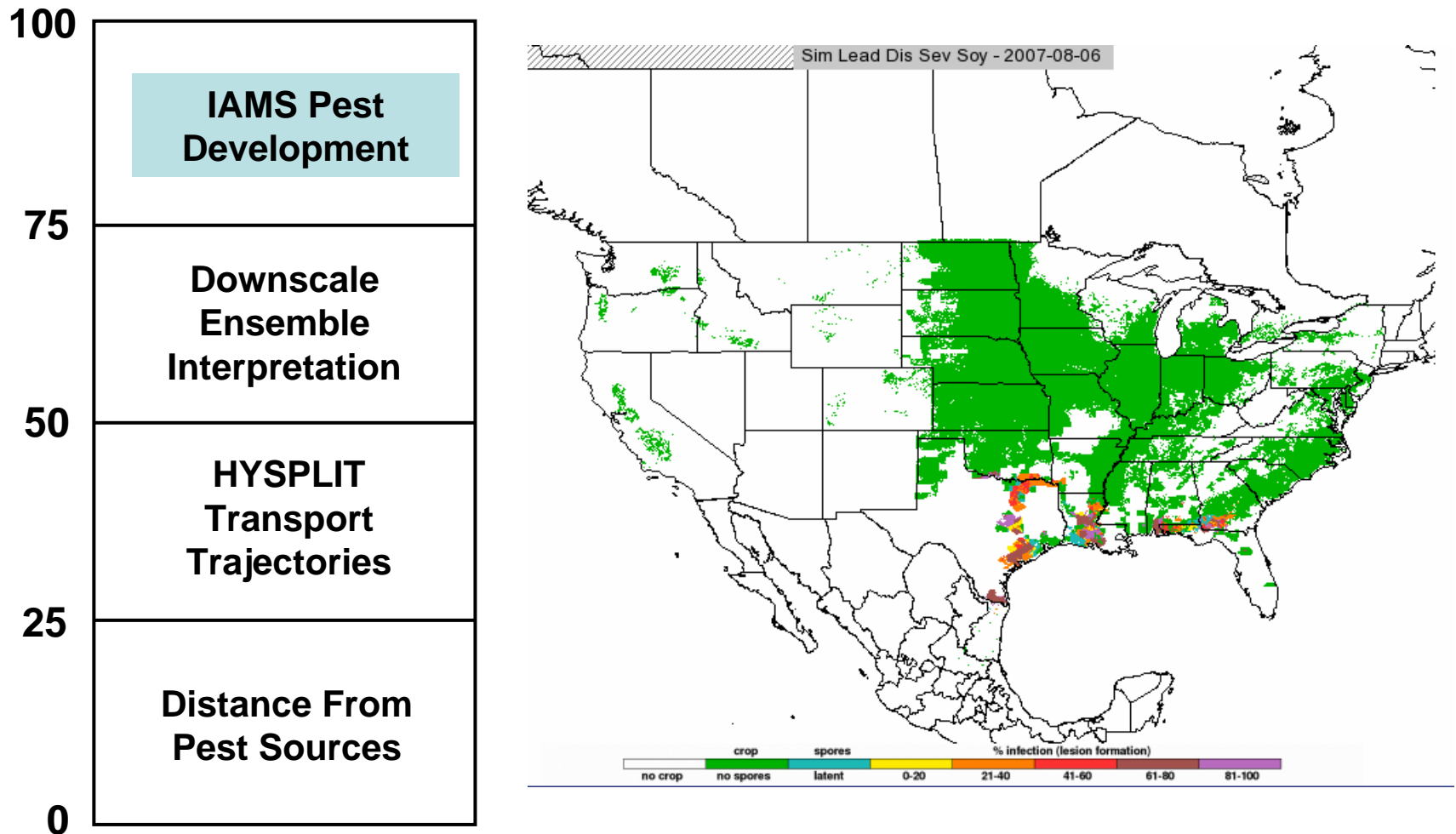
# Design of SPR – Downscale Ensemble Interpretation

## Integrated Information Sources



# Design of SPR – IAMS Pest Development

## Integrated Information Sources



# SPR Examples

## Example 1



0 25 50 75 100



Pest inside third distance ring



Favorable trajectories nearby



Ensemble wait (yellow) area



Latent development

Risk Score = 55

## Example 2



0 25 50 75 100



Pest inside second distance ring



Favorable trajectories overhead

Ensemble warn (orange) area



Latent development



Risk Score = 80



# Message Tool

USDA

 Pennsylvania 
 Soybean Rust Observation 
 2007 
 Dec 
 11

County Group 

 New 
 Risk Scheme 
 Scheme 
 New 
 Message 
 Message 
 New

**Up**

February - 2007						
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

March - 2007

				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

April - 2007

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

**Down**

- [SBR Research Forecast](#)
- [SBR Public Forecast](#)
- [United States Commentary](#)
- [Hurricane Animations](#)
- [ID/Scouting Tools](#)
- [IPM PIPE General Site](#)
- [Management](#)
- [Not sure if it is Rust?](#)
- [Observation Animations](#)
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- [Professional Societies](#)
- [Soybean Rust: Scout Before you Spray](#)
- [Website Tutorial](#)

State
  Point
  Commentary
 

 Distance 
 Load

Message

**Risk Scheme**

Name

Item

%Risk

- 5 Crop Density
- 10 Pest Id Story
- 15 **Total**

**Pest Control Threshold**

≥

**Management Toolbox**

[See Public Site](#)

# Message Tool

USDA

 Pennsylvania ▼
 Soybean Rust Observation ▼
 2007 ▼
 Dec ▼
 11 ▼

County Group ▼ Group ▼
New
Risk Scheme ▼ Scheme ▼
New
Message ▼ Message ▼
New

Up

February - 2007

				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

March - 2007

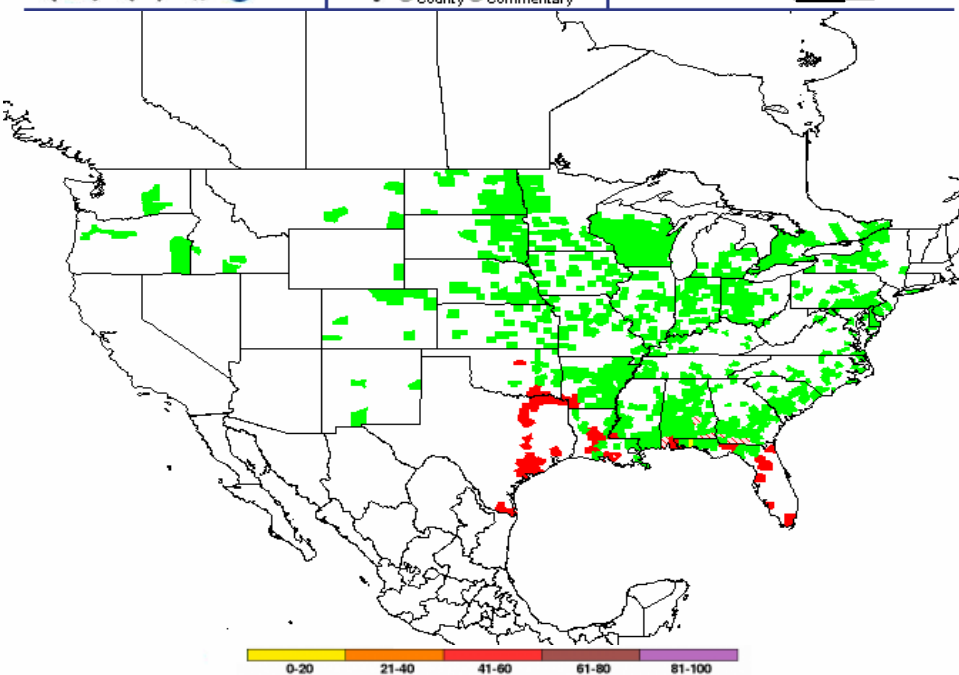
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Down

? State  Point 
County  Commentary 
Distance ▼
Add ▼



Risk Scheme

Name ▼ Select Name

Item ▼ Select Item

%Risk ▼ Select % Add

5 Crop Density

10 Pest Id Story

15 **Total**

Pest Control Threshold

≥ ▼ 75 ▼

Save

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Message

[new text message typed here]

Save

Management Toolbox

[See Public Site](#)

**The End**

**Thank you!**