

Transfer of IPM Technology to Texas Cotton Producers

Presented at the National IPM Symposium

St. Louis, MO

April 4, 2006

Thomas W. Fuchs

Professor and IPM Coordinator

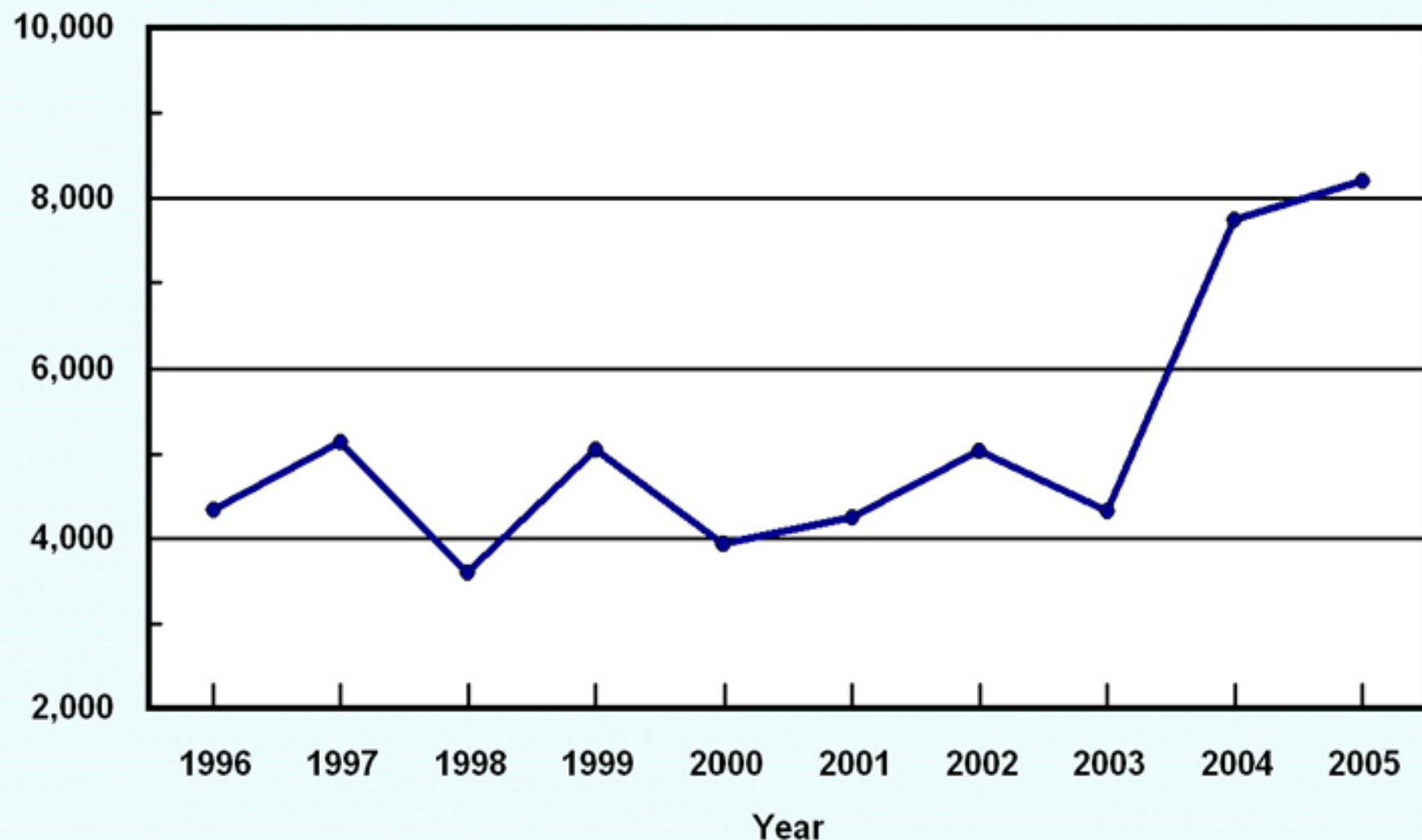
Texas Cooperative Extension

Texas A&M University

Texas Upland Cotton Production

January 2006

1,000 bales

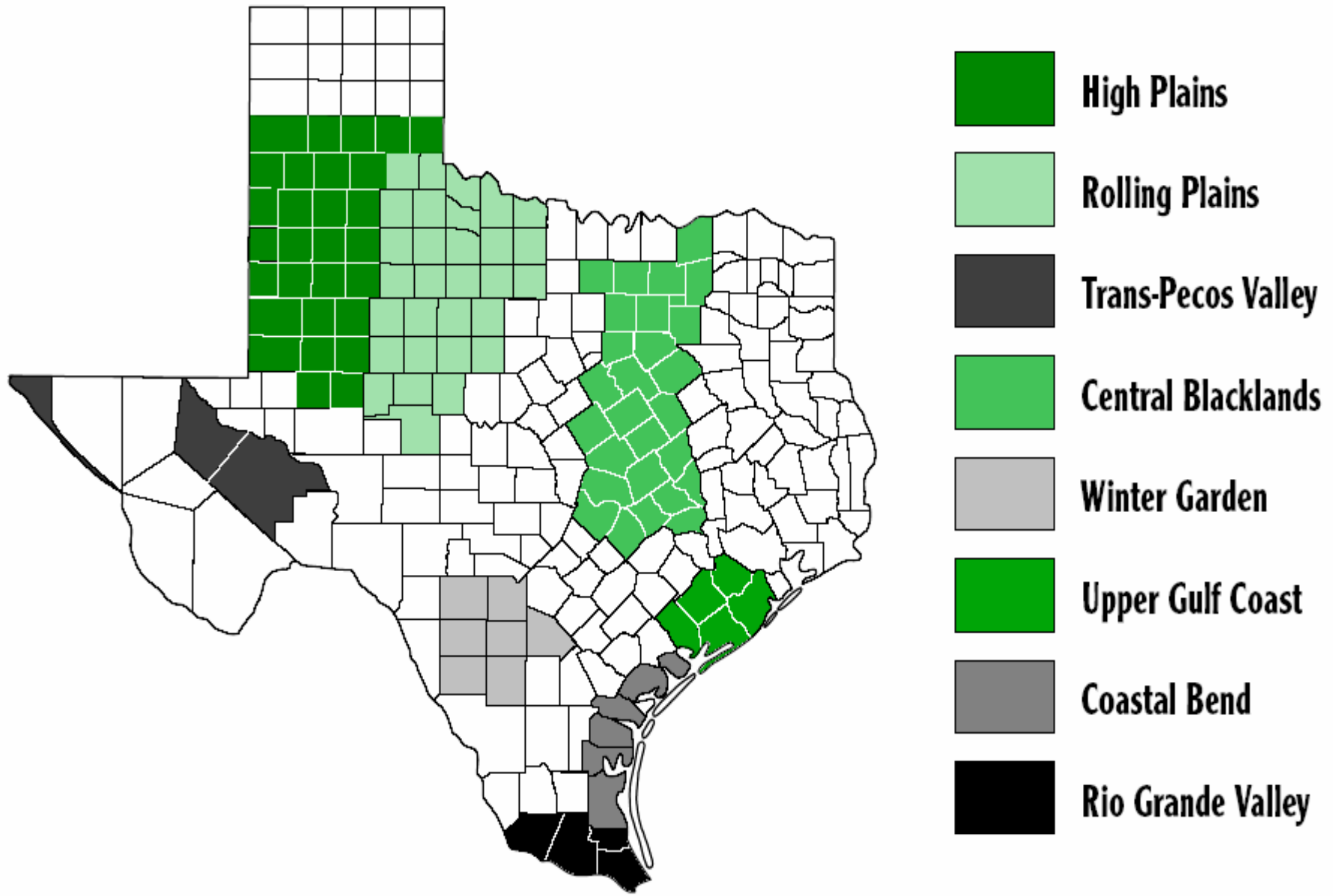


Texas Cotton 2005

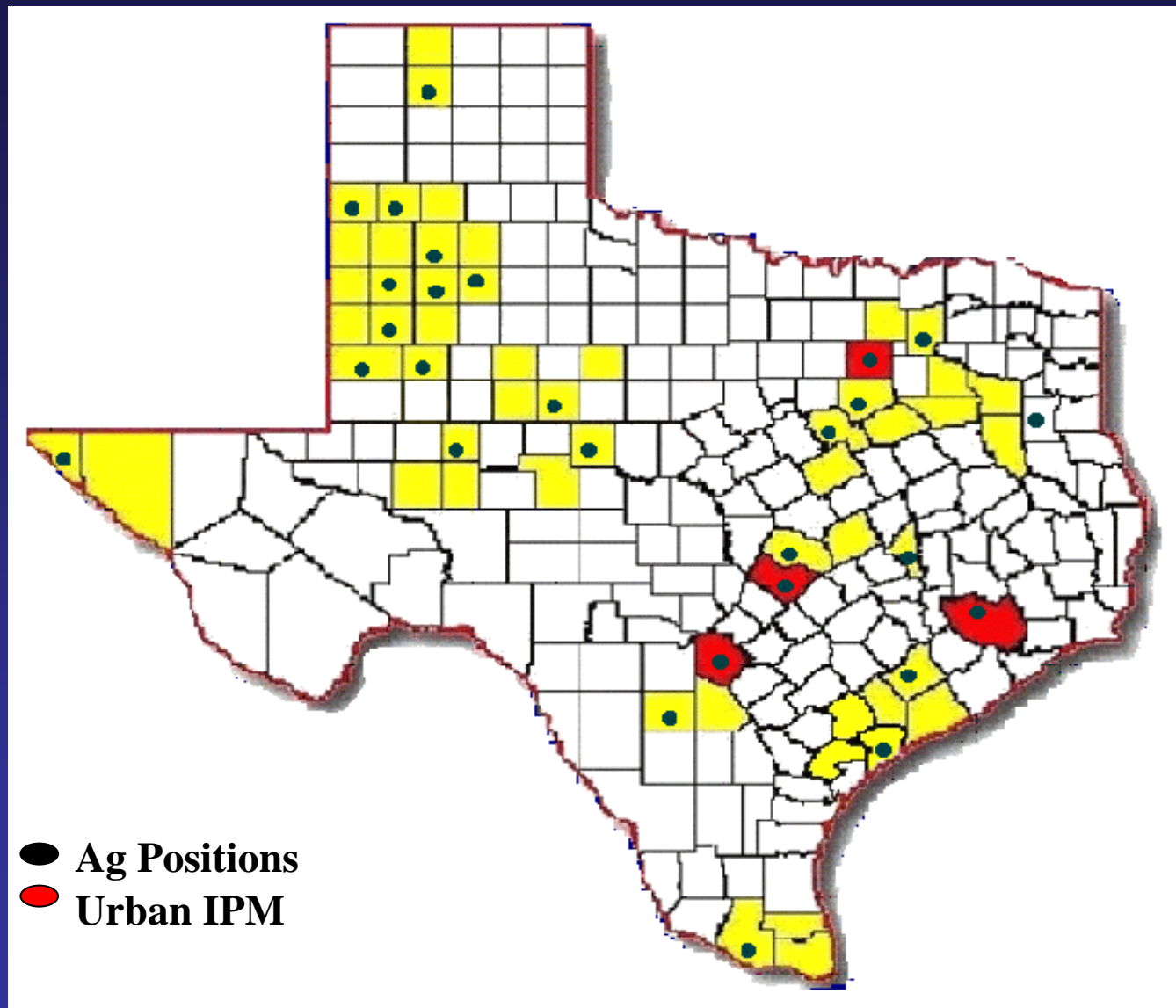
- 5.9 million acres
- 8.2 million bales
- \$1.8 billion income



Cotton Production Regions of Texas



Extension IPM Positions



Extension IPM Program

Vision

...deliver unbiased, credible and timely solutions to pest problems of agricultural and urban customers

Methods

Educational programming

Research/Demonstrations



Texas IPM Program - A Partnership

- Producers, Commodity Groups, Agribusinesses
- TPMA
- TAMU System
- Agricultural Consultants
- USDA/CSREES
- TDA

Methods of Transferring Technology

Passive

Technical reports

Bulletins

Fact sheets

Guides

Newsletters

Internet

Active

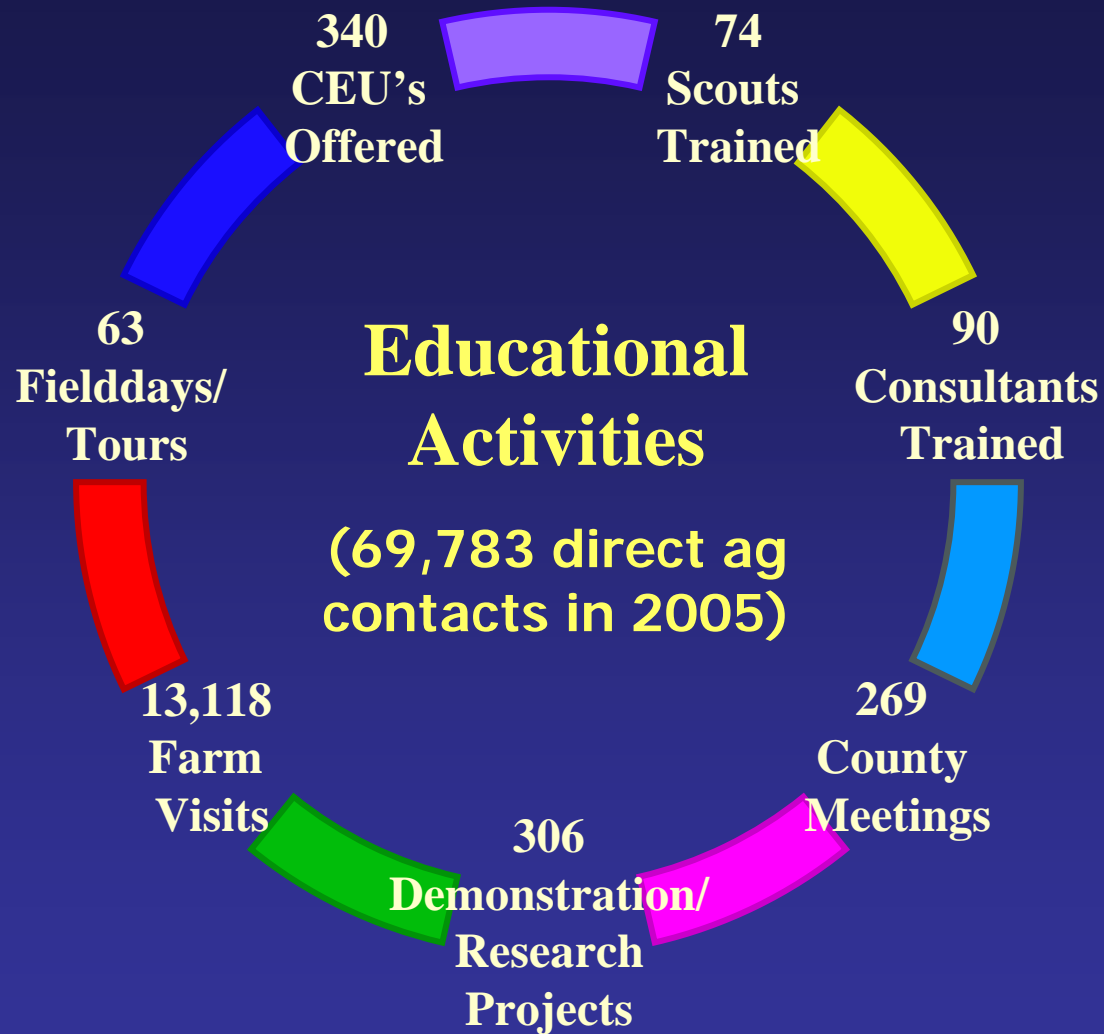
Presentations

Seminars

Field meetings

Tours

Applied Research/
Demonstrations**



Emphasis of Applied Research/Demonstrations

Percent of Projects by Crop

| <u>Crop</u> | <u>2002</u> | <u>2003</u> | <u>2004</u> | <u>2005*</u> |
|-------------|-------------|-------------|-------------|--------------|
| Cotton | 54 | 60 | 55 | 62 |
| Corn | 11 | 15 | 10 | 9 |
| Wheat | 13 | 5 | 12 | 10 |
| Sorghum | 7 | 1 | 2 | 2 |
| Other | 15 | 10 | 20 | 18 |

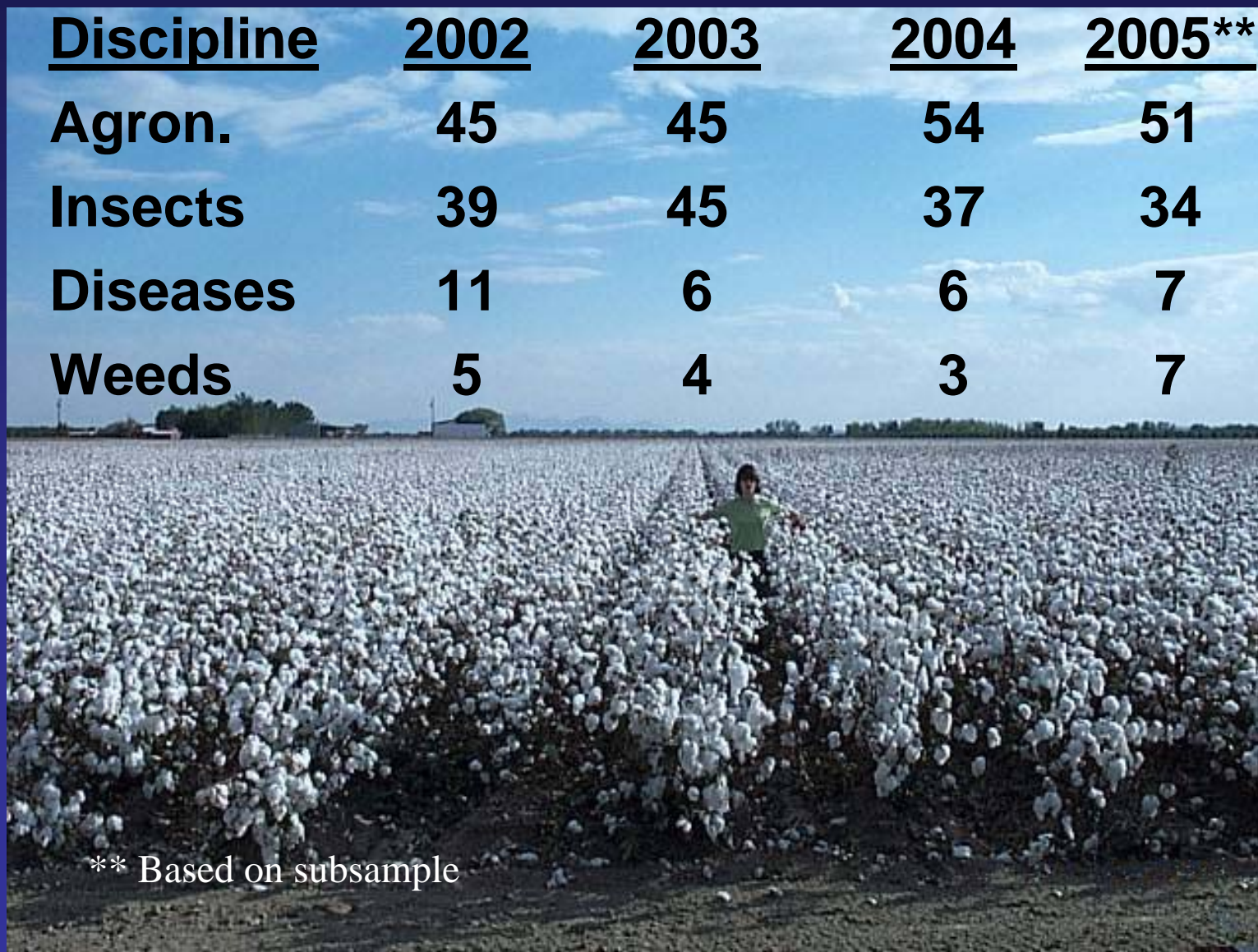
* Based on subsample



Emphasis of Demonstrations

Percent of Projects by Discipline

| <u>Discipline</u> | <u>2002</u> | <u>2003</u> | <u>2004</u> | <u>2005**</u> |
|-------------------|-------------|-------------|-------------|---------------|
| Agron. | 45 | 45 | 54 | 51 |
| Insects | 39 | 45 | 37 | 34 |
| Diseases | 11 | 6 | 6 | 7 |
| Weeds | 5 | 4 | 3 | 7 |



** Based on subsample

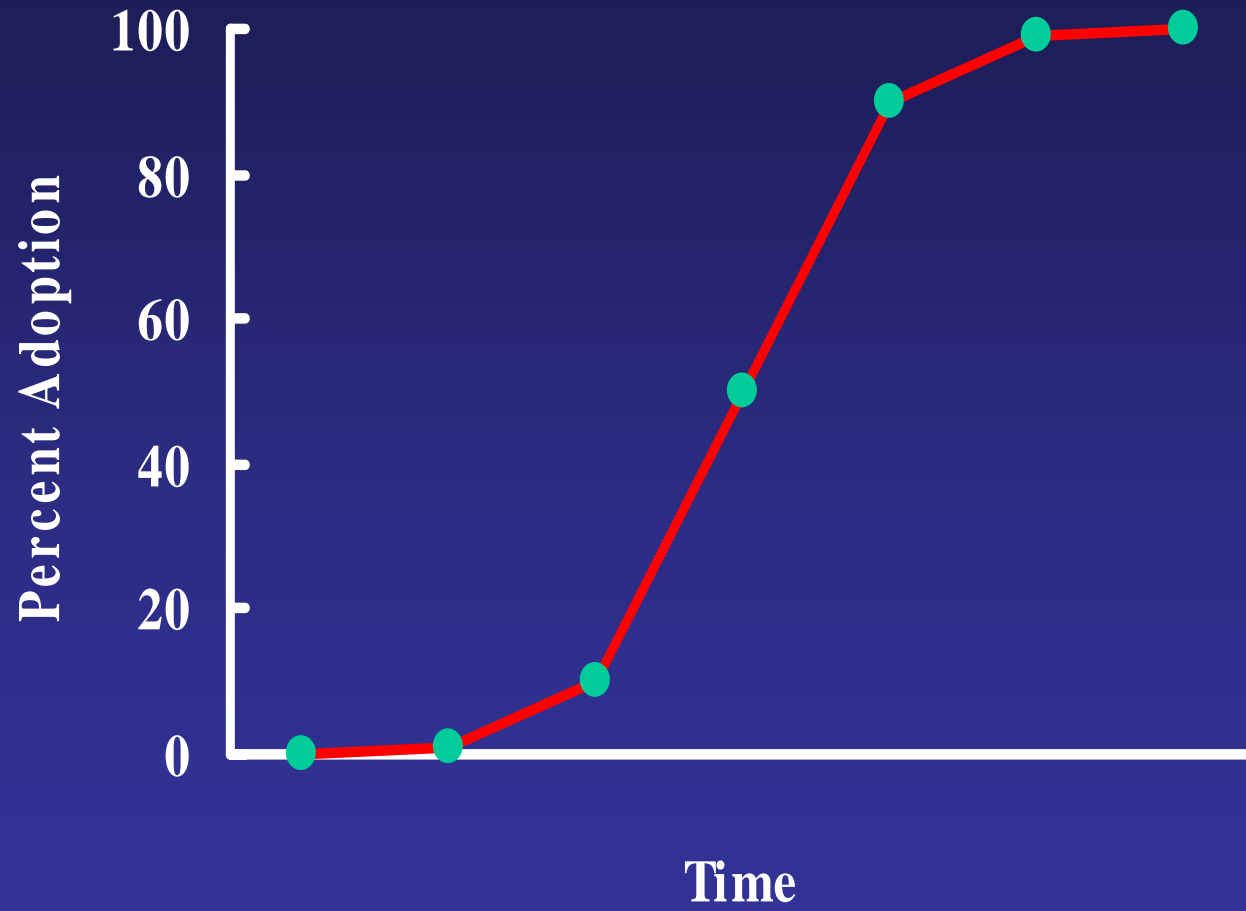
Attributes of Innovations for Successful Implementation

- Provide measurable advantage
- Compatible
- Efficacy
- Meets customer needs
- Cost effective

Categories of Adopters

- Innovators
- Early adopters**
- Early majority adopters
- Late majority adopters
- Late adopters

Adoption of New Technology



Adapted from Dent 1998

Case Study on Adoption of IPM

Hockley and Cochran Counties

(275,000 acres of cotton)

| | <u>1997</u> | <u>2000</u> | <u>2003</u> | <u>2005</u> |
|---|-------------|-------------|-------------|-------------|
| Select varieties to resist pests | 35 | 50 | 71 | 71 |
| Use field scouting | 82 | 73 | 80 | 89 |
| Soil test | 58 | 63 | 62 | 68 |
| Use published ET | 72 | 63 | 62 | 68 |
| IPM program has improved pest control decisions | 91 | 94 | 94 | 100 |
| IPM greatly reduces farming risks | 43 | 58 | 59 | 70 |

Grower Estimates of Value of Cotton IPM Program- 2005

Parmer/Bailey Counties

- Reduced management costs by \$20/acre
- Increased net profits by \$41/acre
- Estimated value of IPM program including scouting, applied research and education at \$74/acre

Grower Estimates of Value of IPM Program- 2004

Williamson/Milam Counties

- \$33.00/acre on cotton
- \$15.00/ acre on wheat
- \$23.00/acre on corn

Parmer/Bailey Counties

- Increased net profits by \$43.50/acre
- Overall value to producers of \$68.50/acre
- 50% implemented new IPM practice in 2004

Texas IPM Team

