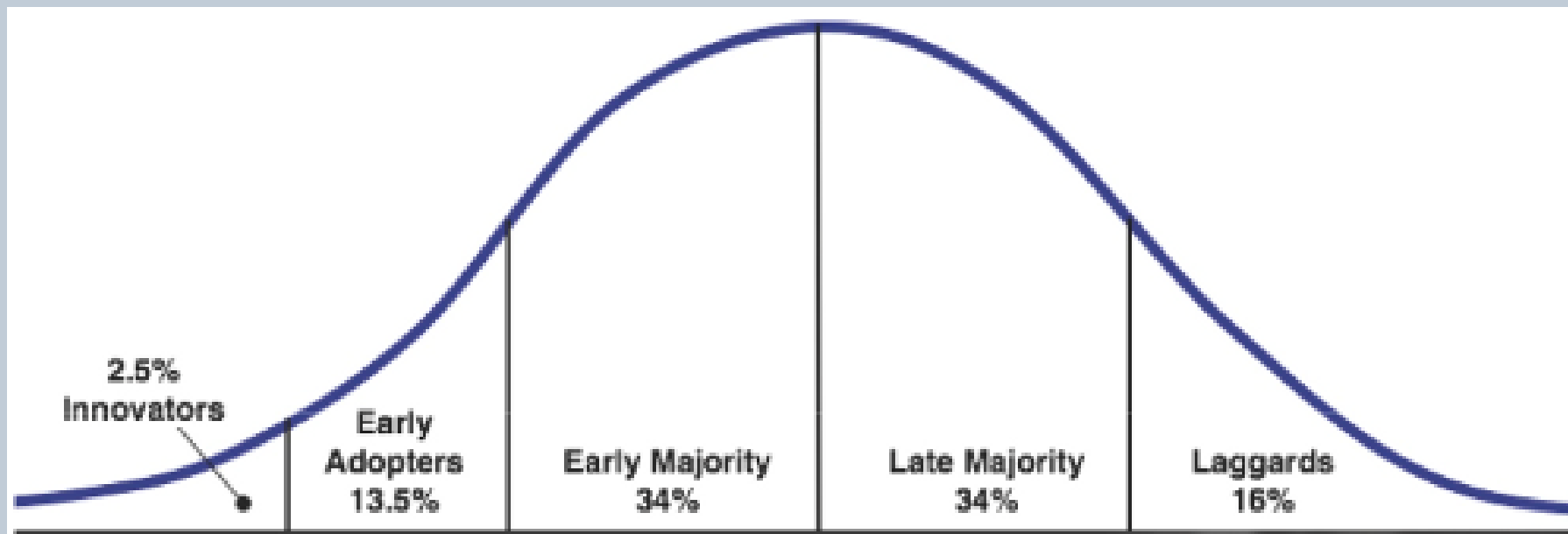




# Drivers of Farmer and Agricultural Stakeholder Decision Making and Actions



Rogers' Diffusion of Innovations curve

Linda S. Prokopy



@lprokopy



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Horticulture and  
Landscape Architecture

# Are cover crops being used in the US corn belt?

J.W. Singer, S.M. Nusser, and C.J. Alf

**Abstract:** The benefits of using cover crops are well established, but adoption in agronomic farming systems is unknown. The objectives of this study were to quantify cover crop use



JOURNAL ARTICLE

## Farm Family Resources and the Adoption of No-Plow Tillage in Southwestern Wisconsin

John Belknap and William E. Saupe

North Central Journal of Agricultural Economics  
Vol. 10, No. 1 (Jan., 1988), pp. 13-23 (11 pages)  
Published By: Oxford University Press

<https://doi.org/10.2307/1349232>

doi:10.2489/jswc.73.2.143

## Farmer adoption of cover crops in the western Lake Erie basin

E. Burnett, R.S. Wilson, A. Heeren, and J. Martin

**Abstract:** Runoff from agricultural nutrient applications is the most significant human factor leading to phosphorus (P) loading and water quality issues in western Lake Erie. Recent

## Measuring and understanding agricultural producers' adoption of nutrient best management practices

J.D. Ulrich-Schad, S. García de Jalón, N. Babin, A. Pape and L.S. Prokopy  
Journal of Soil and Water Conservation September 2017, 72 (5) 506-518; DOI: <https://doi.org/10.2489/jswc.72.5.506>

Renewable Agriculture and Food Systems: Page 1 of 12

doi:10.1017/S17421705170

## The trouble with cover crops: Farmers' experiences with overcoming barriers to adoption

Gabrielle E. Roesch-McNally<sup>1\*</sup>, Andrea D. Basche<sup>2</sup>, J.G. Arbuckle<sup>3</sup>, John C. Tyndall<sup>4</sup>, Fernando E. Miguez<sup>5</sup>, Troy Bowman<sup>6</sup> and Rebecca Clay<sup>5</sup>

## Midwestern US Farmers Perceive Crop Advisers as Conduits of Information on Agricultural Conservation Practices

[Francis R. Eanes](#) , [Ajay S. Singh](#), [Brian R. Bulla](#), [Pranay Ranjan](#), [Linda S. Prokopy](#), [Mary Fales](#), [Benjamin Wickerham](#) & [Patrick J. Doran](#)

*Environmental Management* **60**, 974–988(2017) | [Cite this article](#)

644 Accesses | 8 Citations | 15 Altmetric | [Metrics](#)

*Journal of Agricultural and Applied Economics* (2019), 1–18  
doi:10.1017/aae.2019.20

CAMBRIDGE  
UNIVERSITY PRESS

RESEARCH ARTICLE

## Adoption of Cover Crops by U.S. Soybean Producers

Seungyub Lee\* and Laura McCann

Department of Agricultural and Applied Economics, University of Missouri, Columbia, Missouri, USA  
\*Corresponding author. Email: [slb66@mail.missouri.edu](mailto:slb66@mail.missouri.edu)

### Abstract

Using cover crops can be beneficial not only for soil health but also for the environment. However,

doi:10.2489/jswc.71.1.29

## Perceptions and use of cover crops among early adopters: Findings from a national survey

M. Dunn, J.D. Ulrich-Schad, L.S. Prokopy, R.L. Myers, C.R. Watts, and K. Scanlon

**Abstract:** There is evidence that cover crops can bring both environmental and yield benefits to a farm operation, yet according to the USDA's Census of Agriculture, in 2012 less than 5% of the nation's total cropland was planted to cover crops. In 2014, the Sustainable

doi:10.2489/jswc.74.5.520

## Adoption of agricultural conservation practices in the United States: Evidence from 35 years of quantitative literature

L.S. Prokopy, K. Floress, J.G. Arbuckle, S.P. Church, F.R. Eanes, Y. Gao, B.M. Gramig, P. Ranjan, and A.S. Singh

## Cover crops use in Midwestern US agriculture: perceived benefits and net returns

Alejandro Plastina<sup>1</sup>, Fangge Liu<sup>1</sup>, Fernando Miguez<sup>2</sup> and Sarah Carlson<sup>3</sup>

<sup>1</sup>Department of Economics, Iowa State University, 478 Heady Hall, Ames, IA 50011, USA; <sup>2</sup>Department of Agronomy, Iowa State University, 1206 Agronomy Hall, Ames, IA 50011, USA and <sup>3</sup>Practical Farmers of Iowa, 600 Fifth Street, Suite 100, Ames, IA 50010, USA

doi:10.2489/jswc.70.6.418

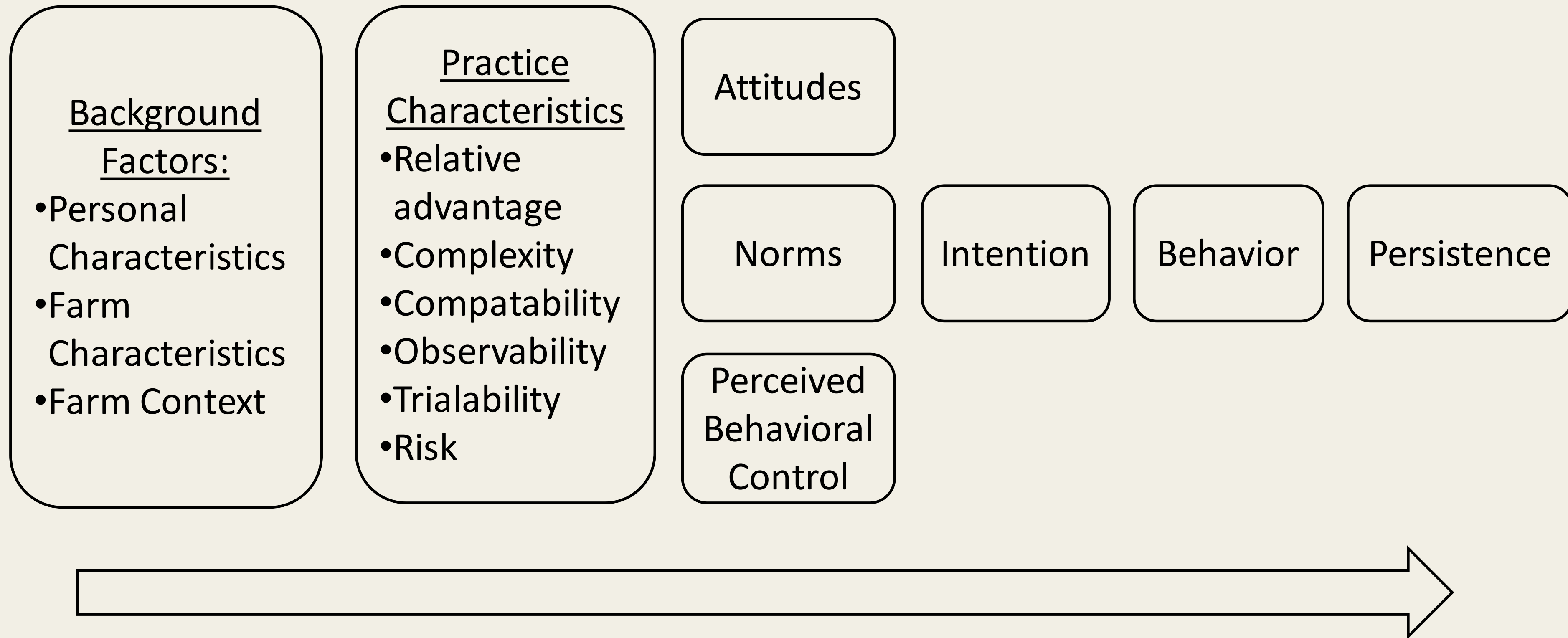
## Cover crop adoption in Iowa: The role of perceived practice characteristics

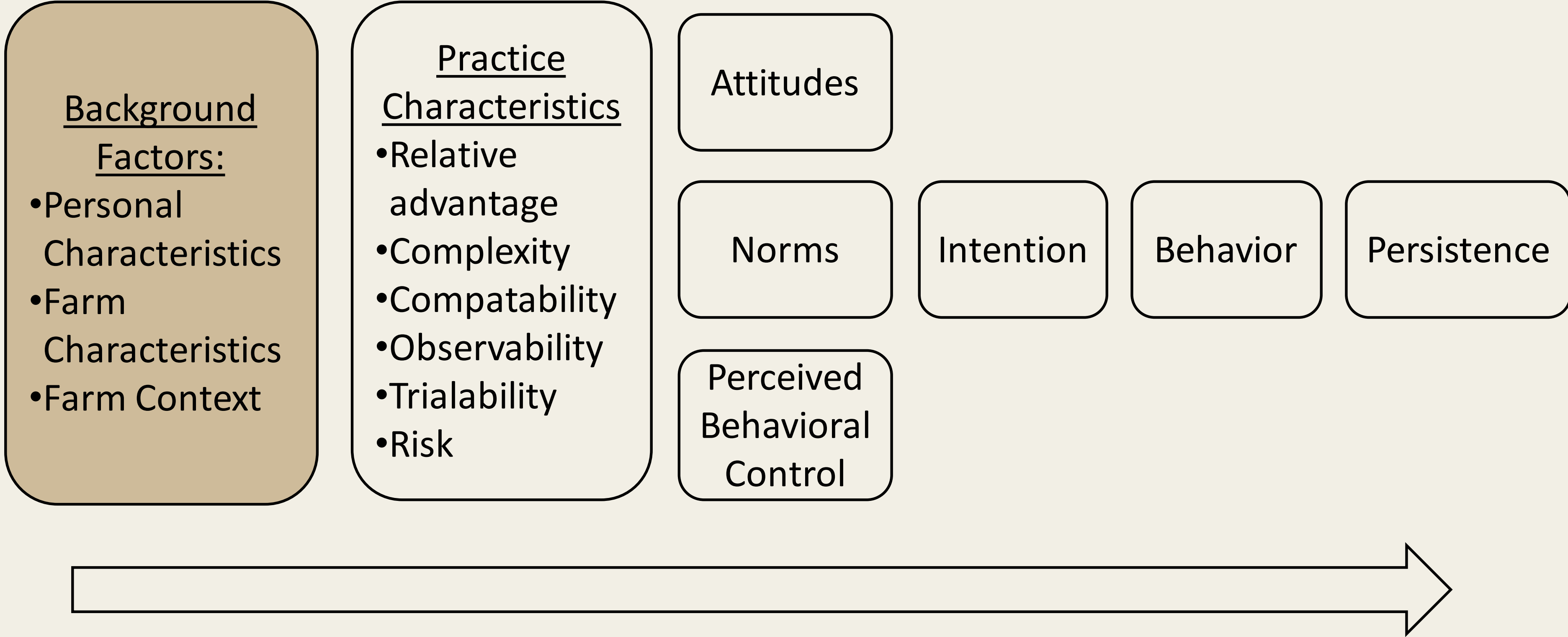
J.G. Arbuckle Jr. and G. Roesch-McNally

**Abstract:** Cover crops are widely viewed by the soil and water conservation community to be an effective means for reducing soil erosion and nutrient loss and increasing soil health, yet relatively few farmers have adopted the practice. Despite the widespread recognition of

## Synthesizing Conservation Motivations and Barriers: What Have We Learned from Qualitative Studies of Farmers' Behaviors in the United States?

Pranay Ranjan, Sarah P. Church, Kristin Floress & Linda S. Prokopy



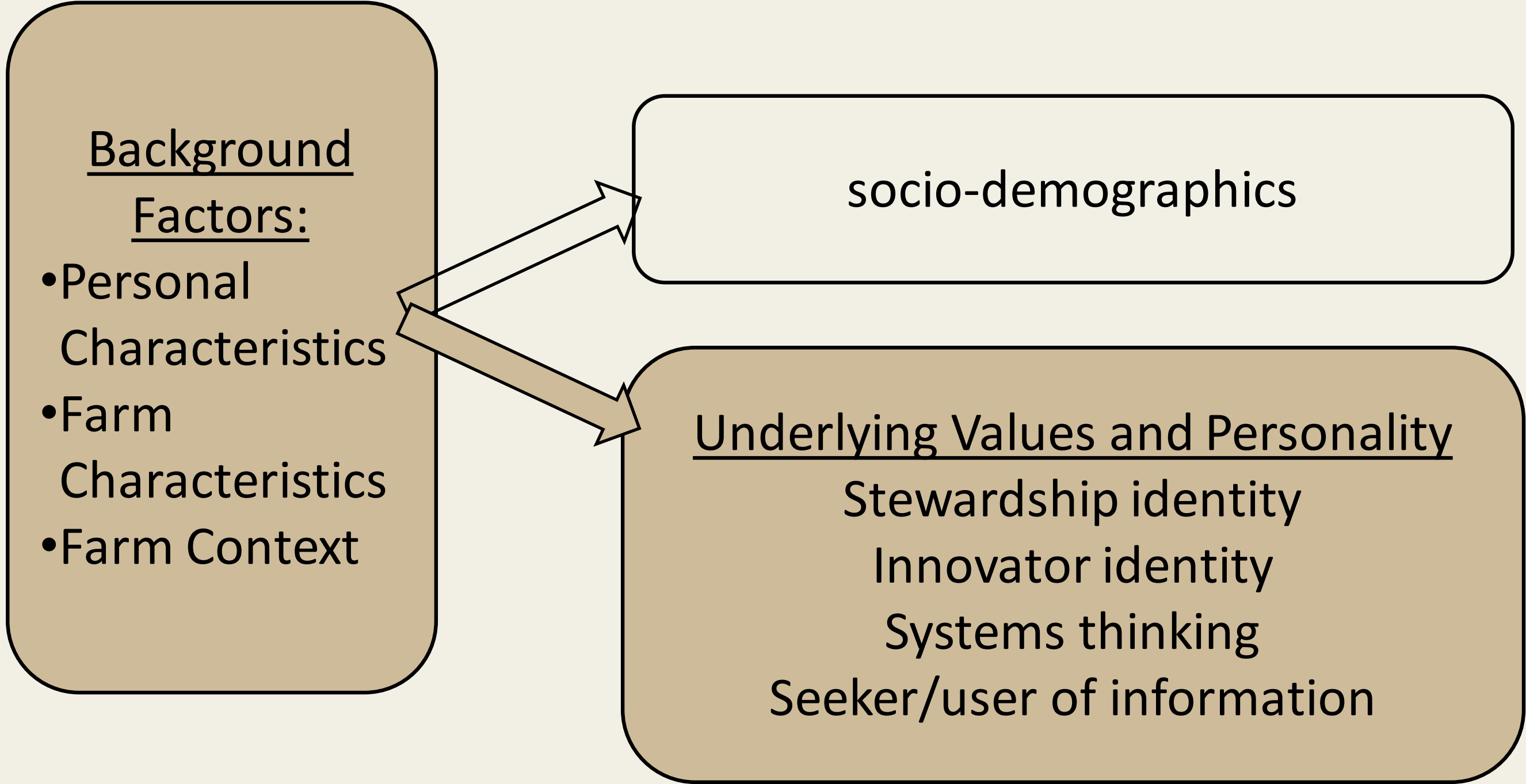


Background  
Factors:

- Personal Characteristics
- Farm Characteristics
- Farm Context

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graph LR; A["Background Factors:  
• Personal Characteristics  
• Farm Characteristics  
• Farm Context"] --> B[socio-demographics]
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socio-demographics

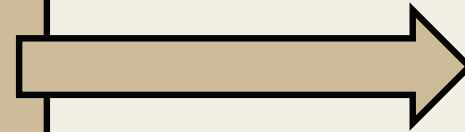




## Background

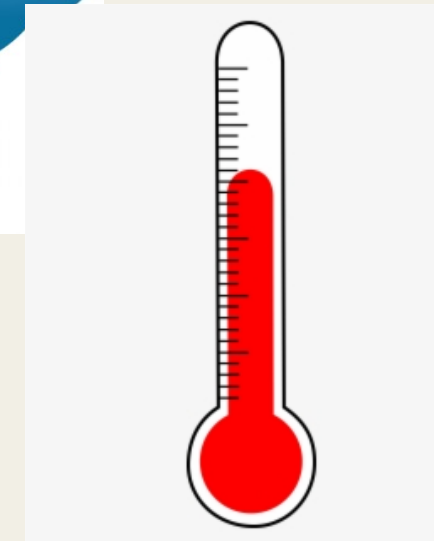
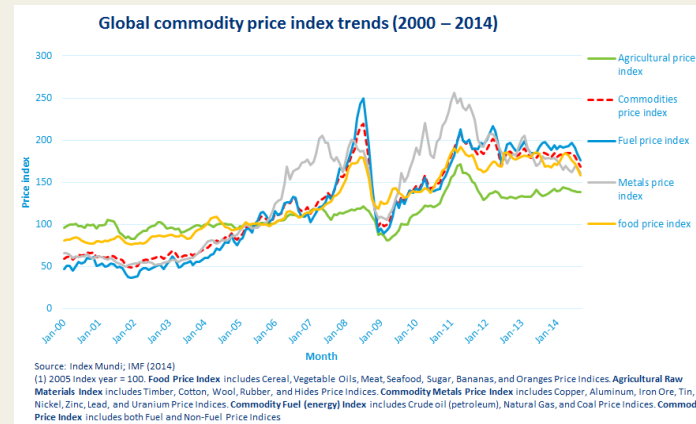
### Factors:

- Personal Characteristics
- Farm Characteristics
- Farm Context

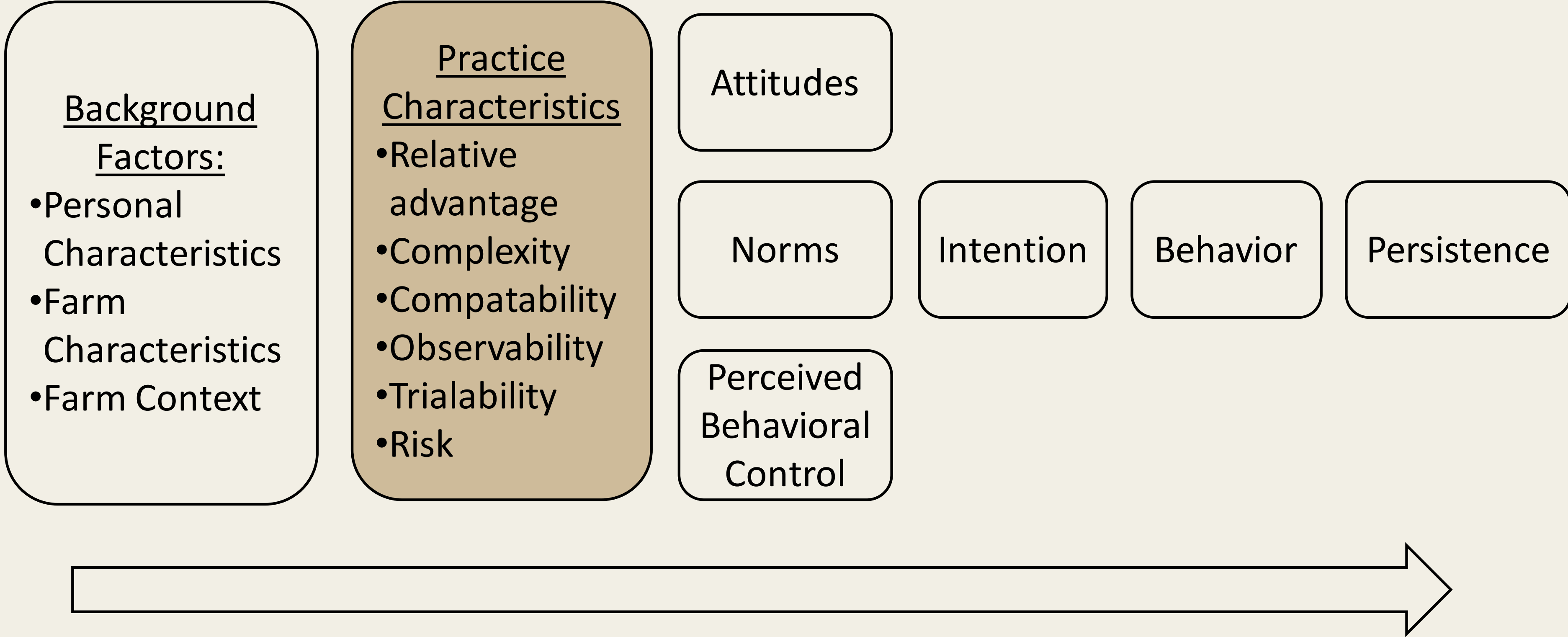


## Background Factors:

- Personal Characteristics
- Farm Characteristics
- Farm Context





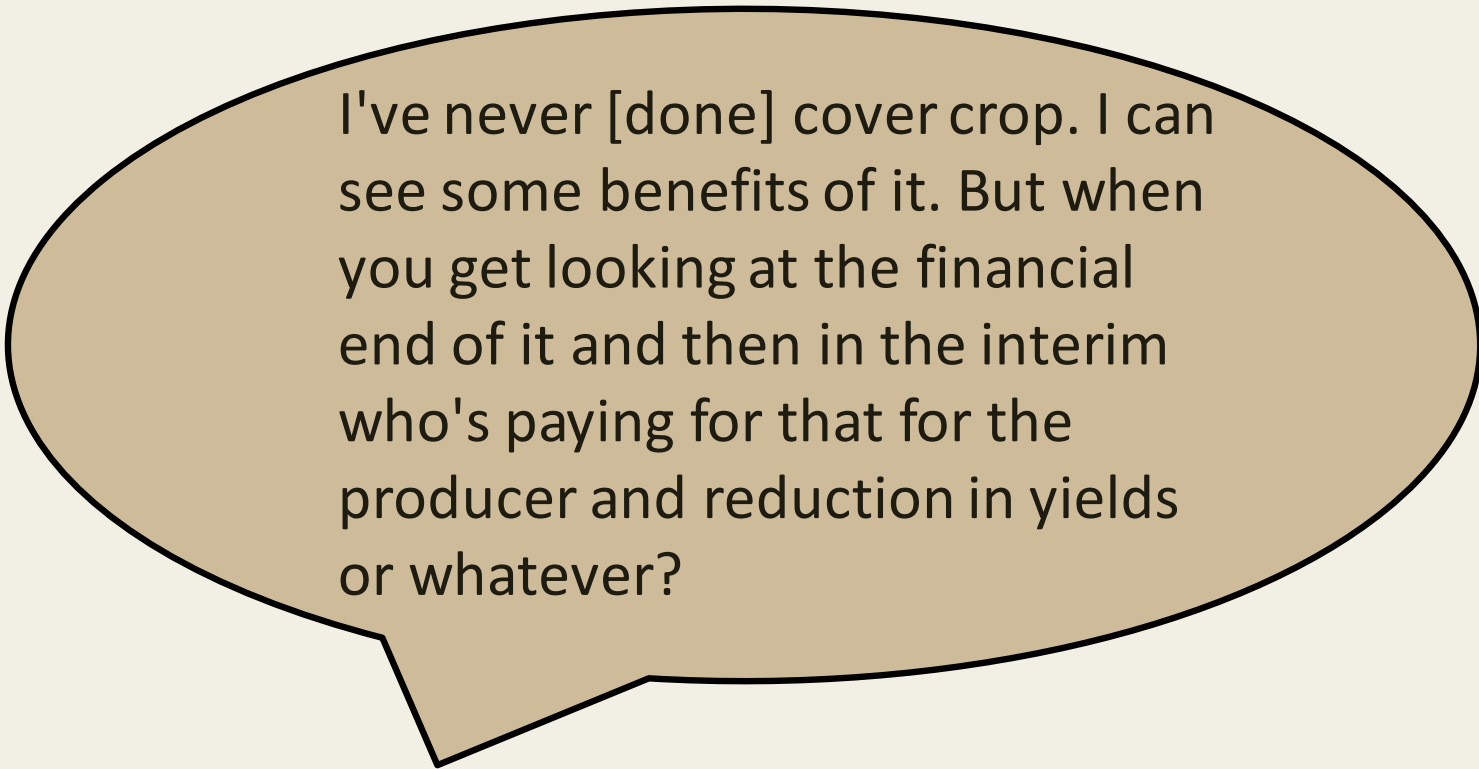




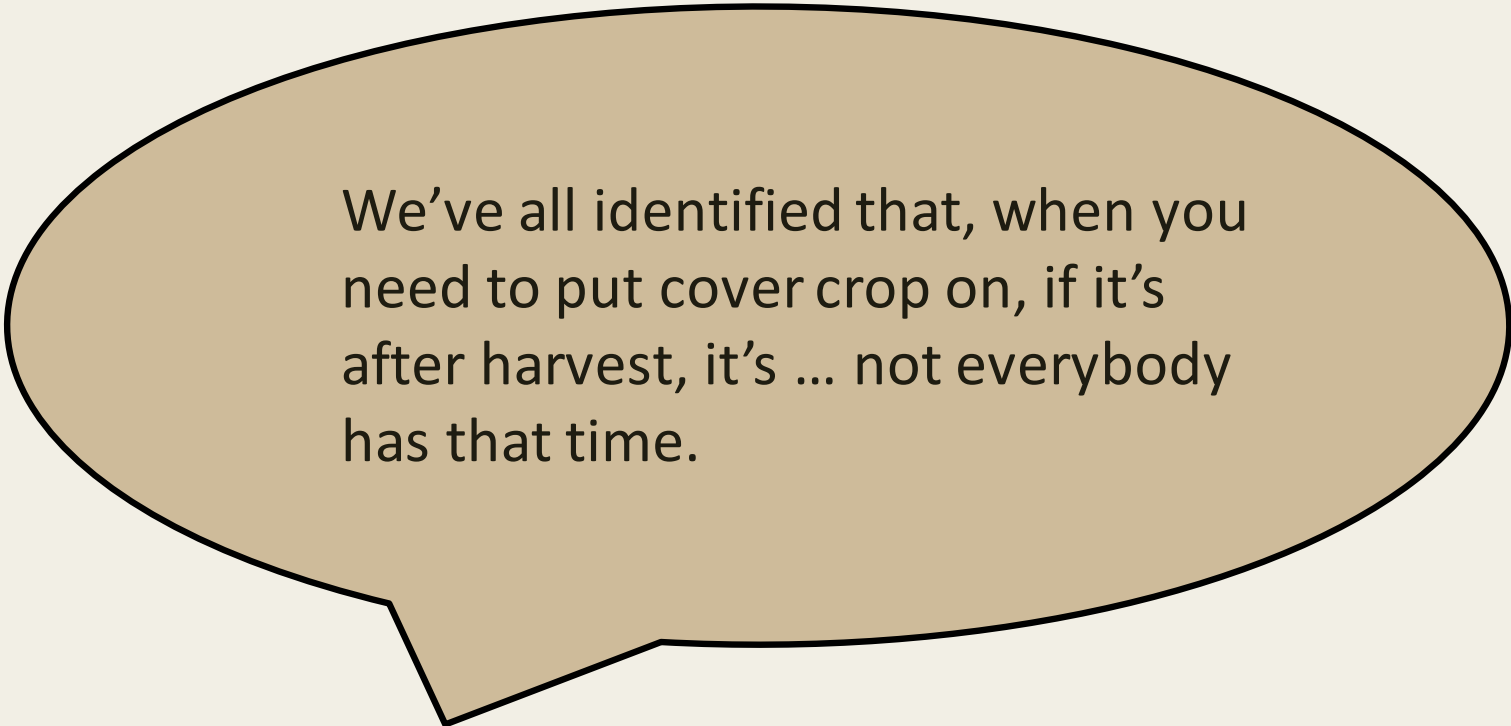


Images: Top left from USDA; right from Emergence by FBN; bottom left from Illinois NRCS

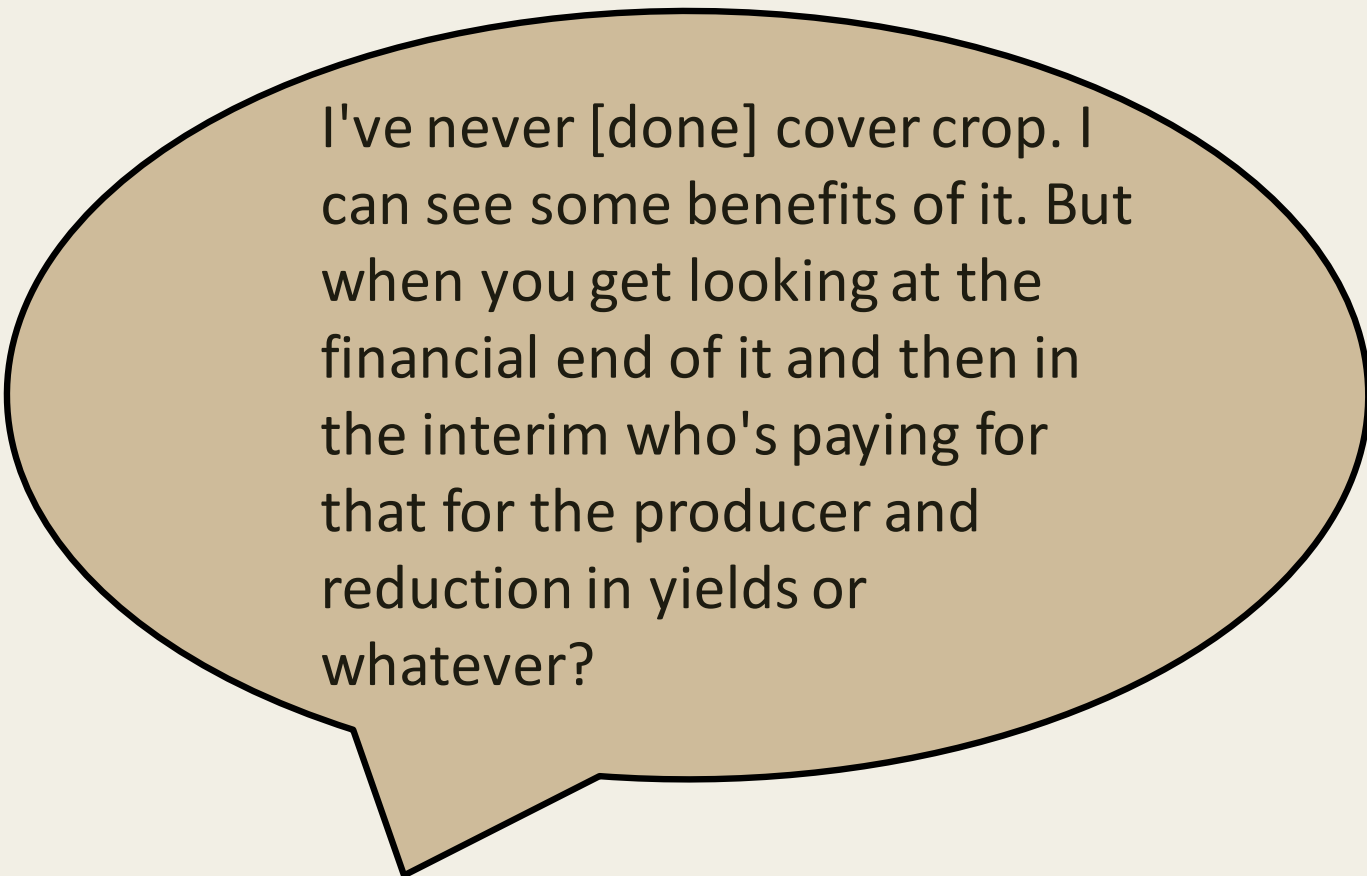




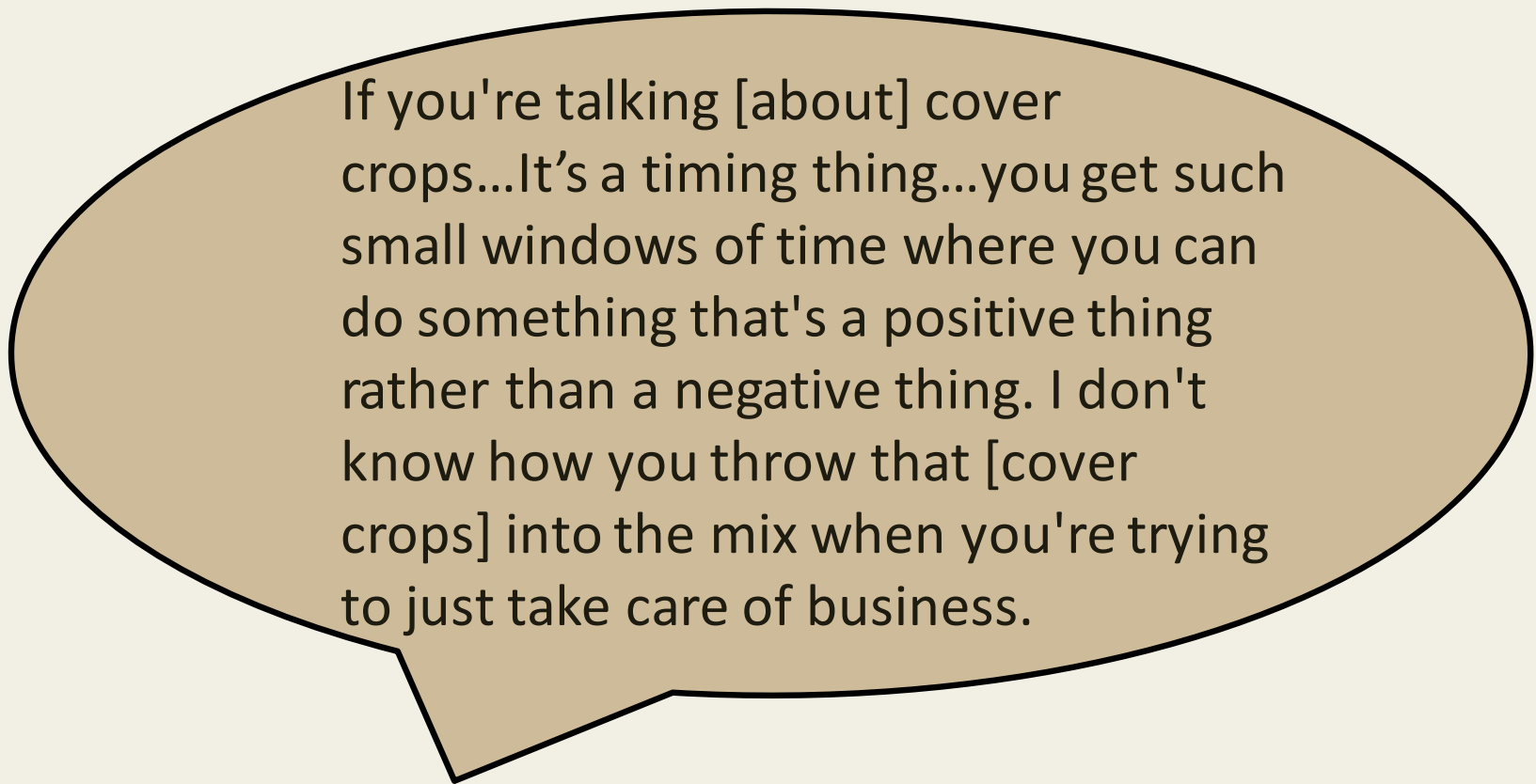
I've never [done] cover crop. I can see some benefits of it. But when you get looking at the financial end of it and then in the interim who's paying for that for the producer and reduction in yields or whatever?



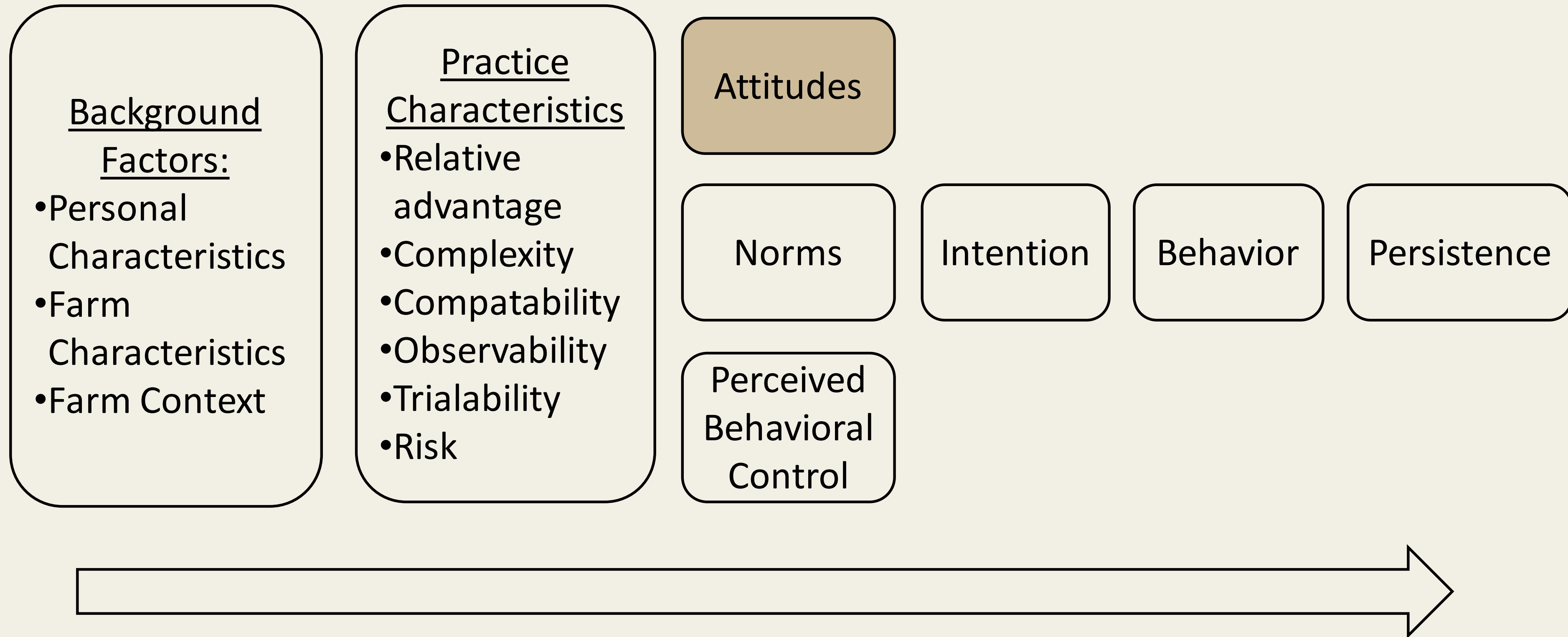
We've all identified that, when you need to put cover crop on, if it's after harvest, it's ... not everybody has that time.

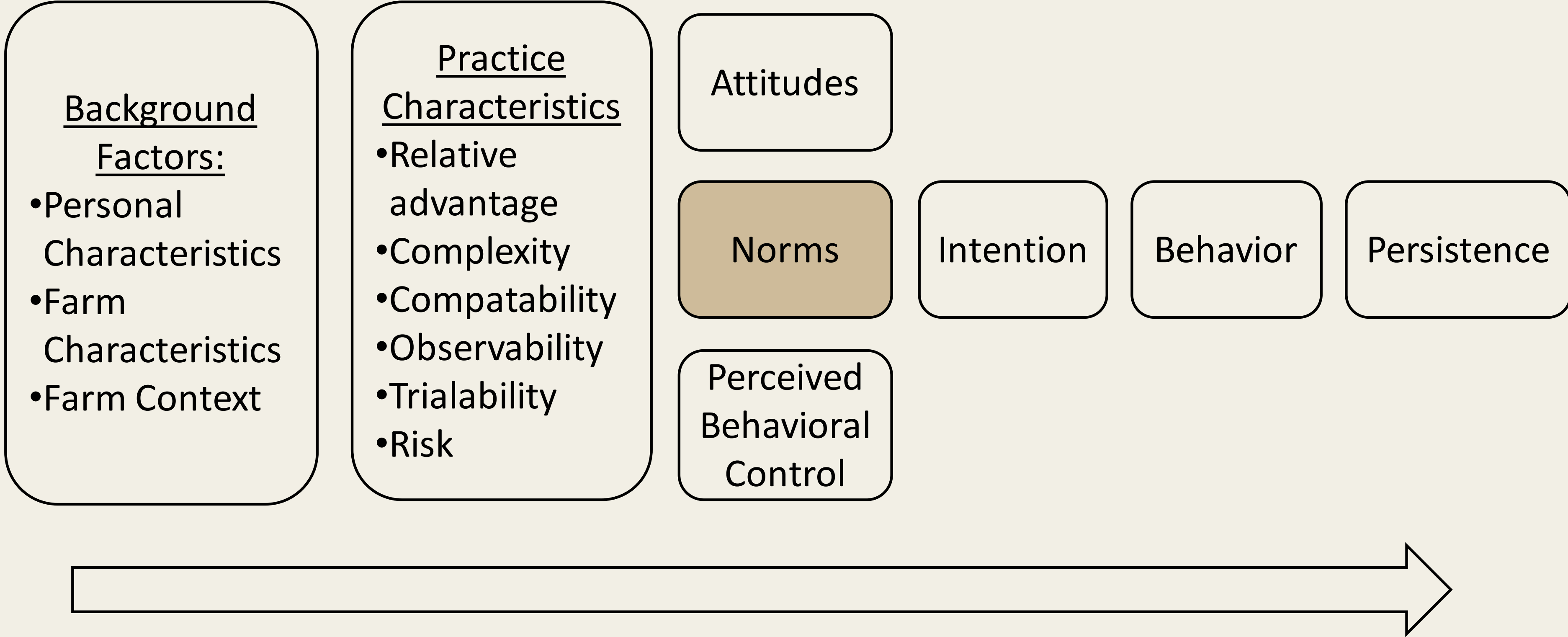


I've never [done] cover crop. I can see some benefits of it. But when you get looking at the financial end of it and then in the interim who's paying for that for the producer and reduction in yields or whatever?



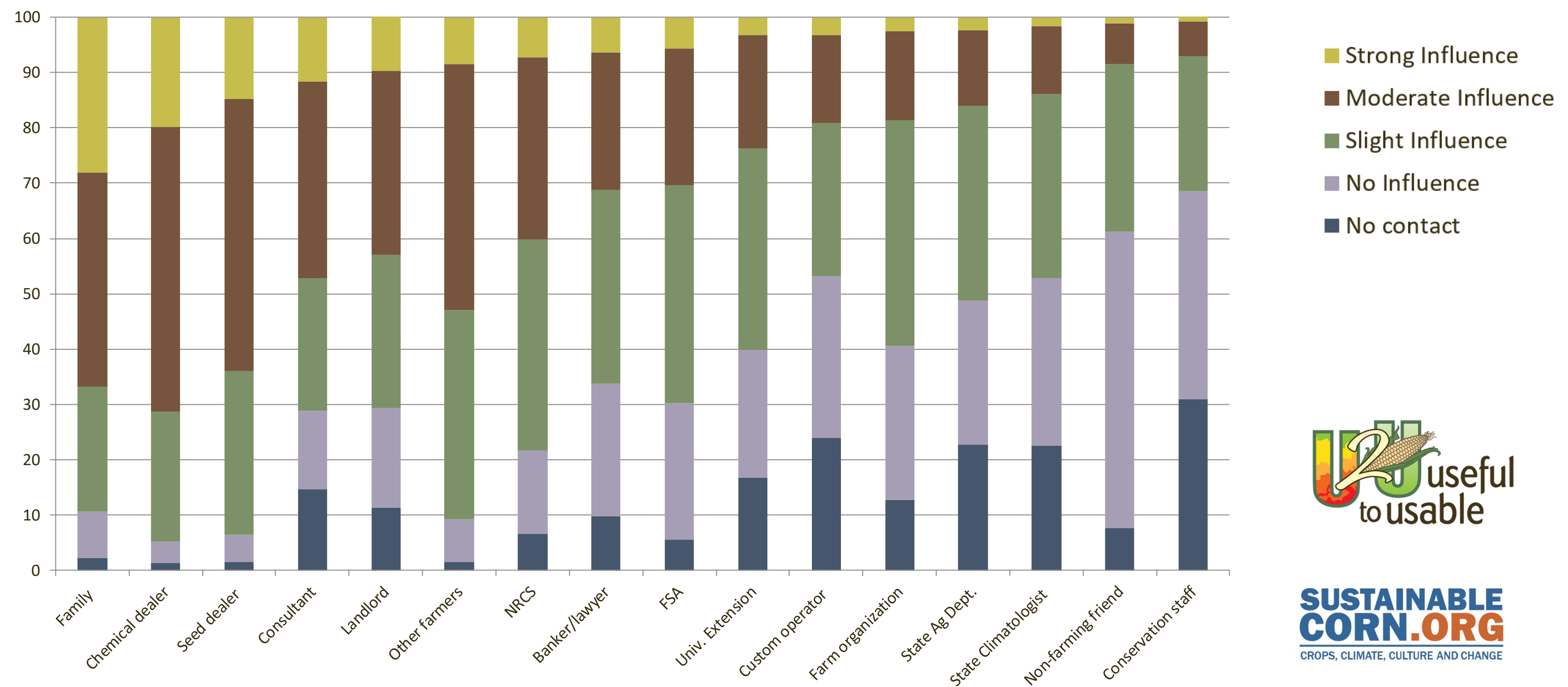
If you're talking [about] cover crops...It's a timing thing...you get such small windows of time where you can do something that's a positive thing rather than a negative thing. I don't know how you throw that [cover crops] into the mix when you're trying to just take care of business.



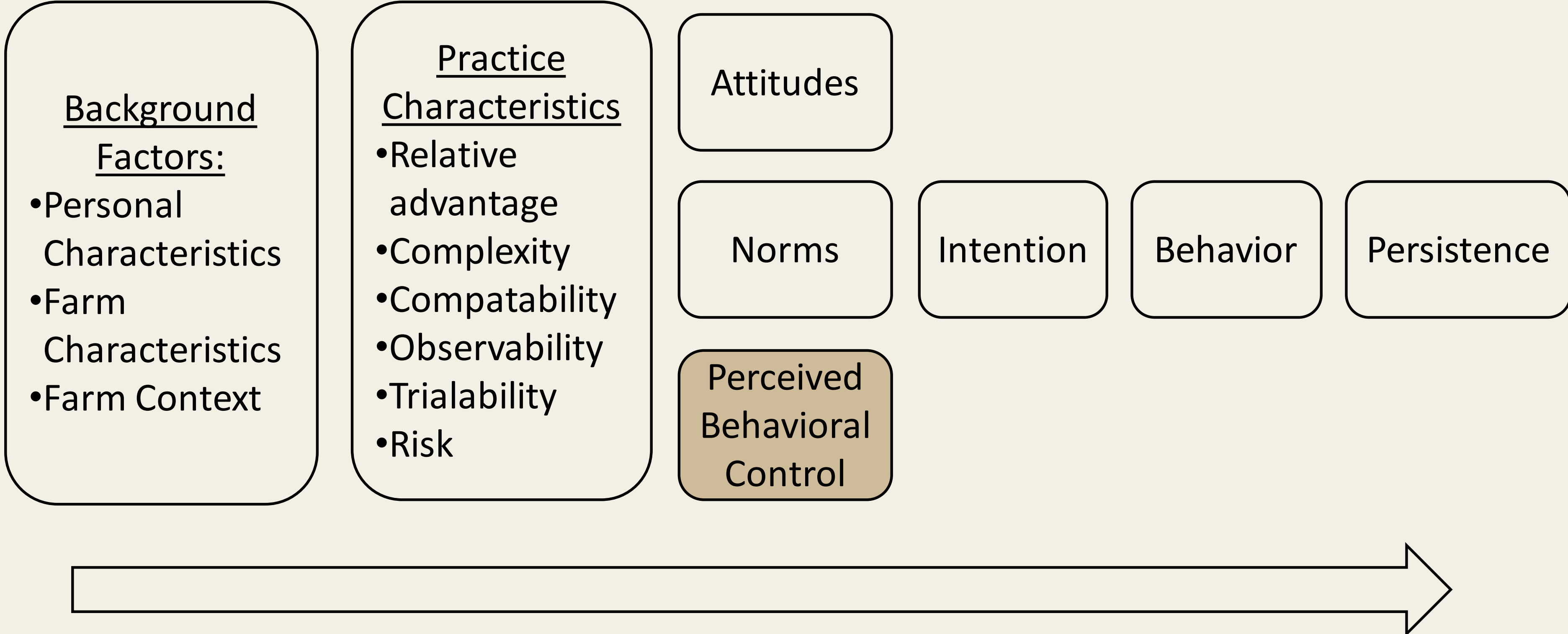


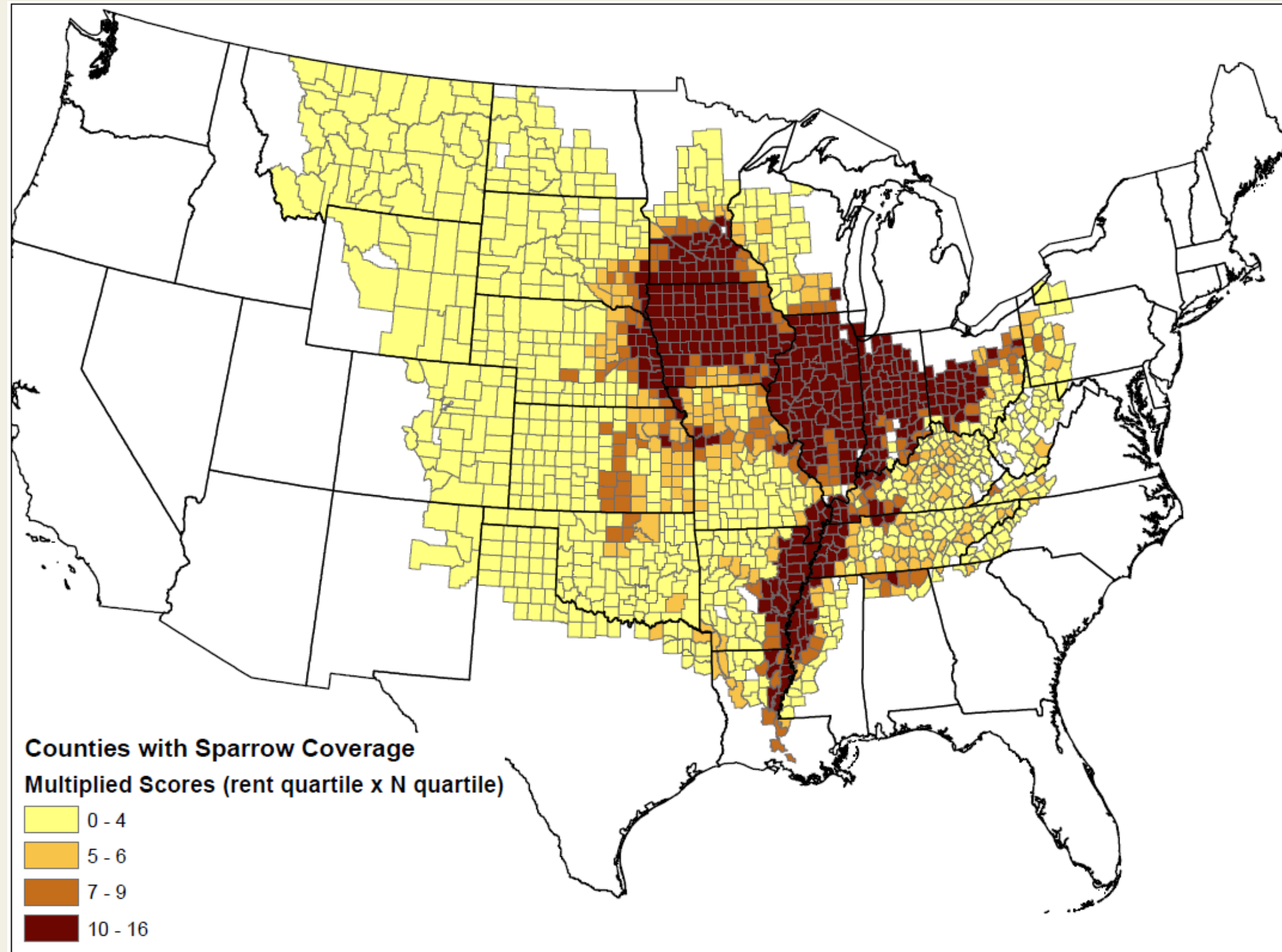


# Q: Please indicate how influential the following groups and individuals are when you make decisions about agricultural practices and strategies



Source; Davidson et al. 2015, *Journal of Environmental Quality*; Prokopy et al. 2015 *Climatic Change*





Masuda et al. 2021. Rented farmland: A missing piece of the nutrient management puzzle in the Upper Mississippi River Basin? *Journal of Soil and Water Conservation*.

# Enrolled 2,223 landowners controlling 560k acres of crops randomized into main experiment.

“Yes, I want to learn more about soil health”

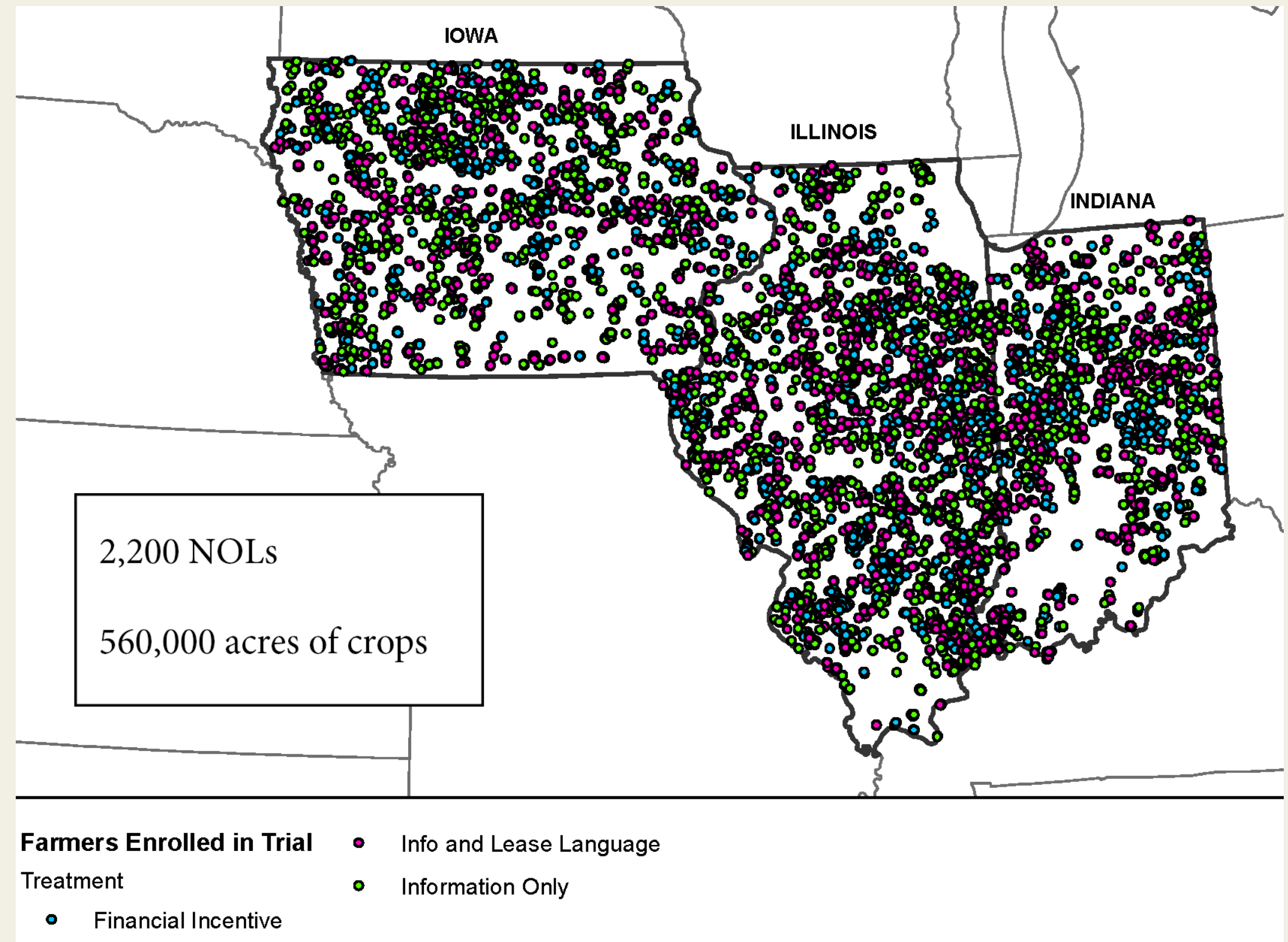
Our sample:

- 2,223 non-operator landowners
- Report not using cover crops in last three years

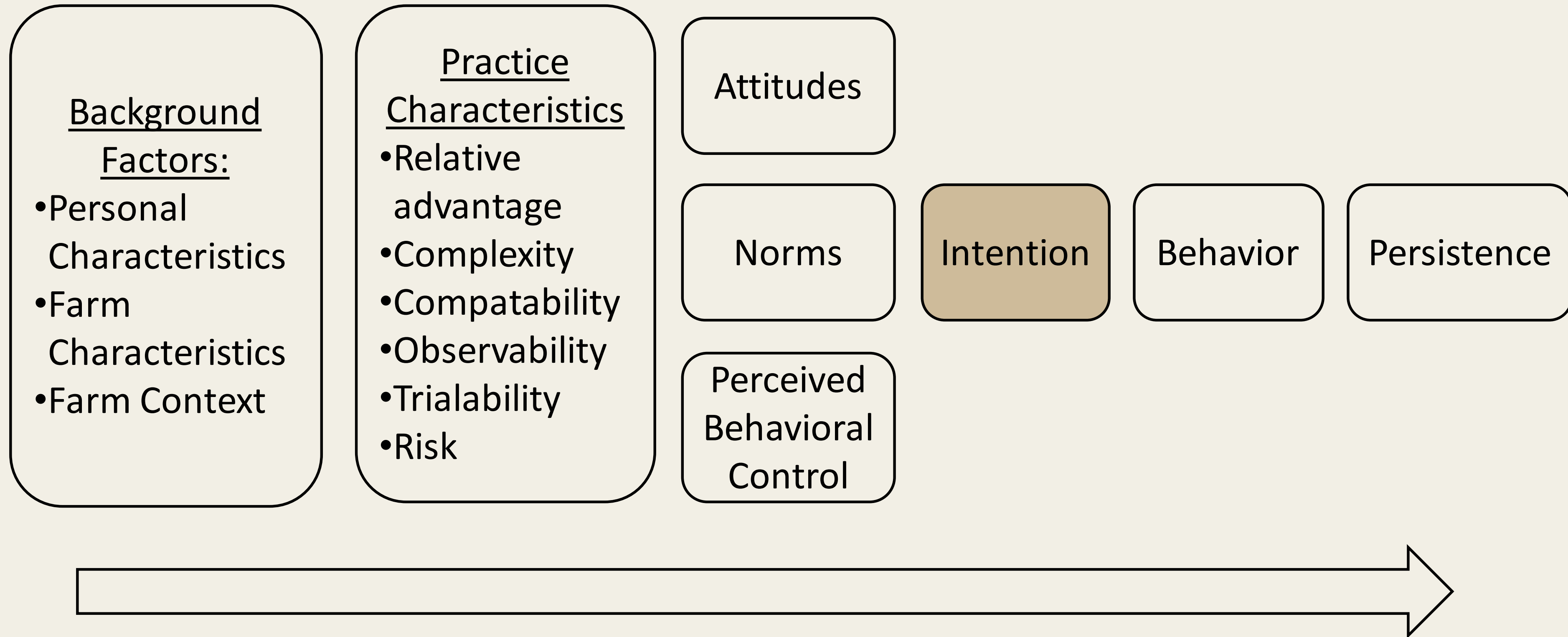
Treatment:

- 876 Information
- 868 Lease
- 479 Financial

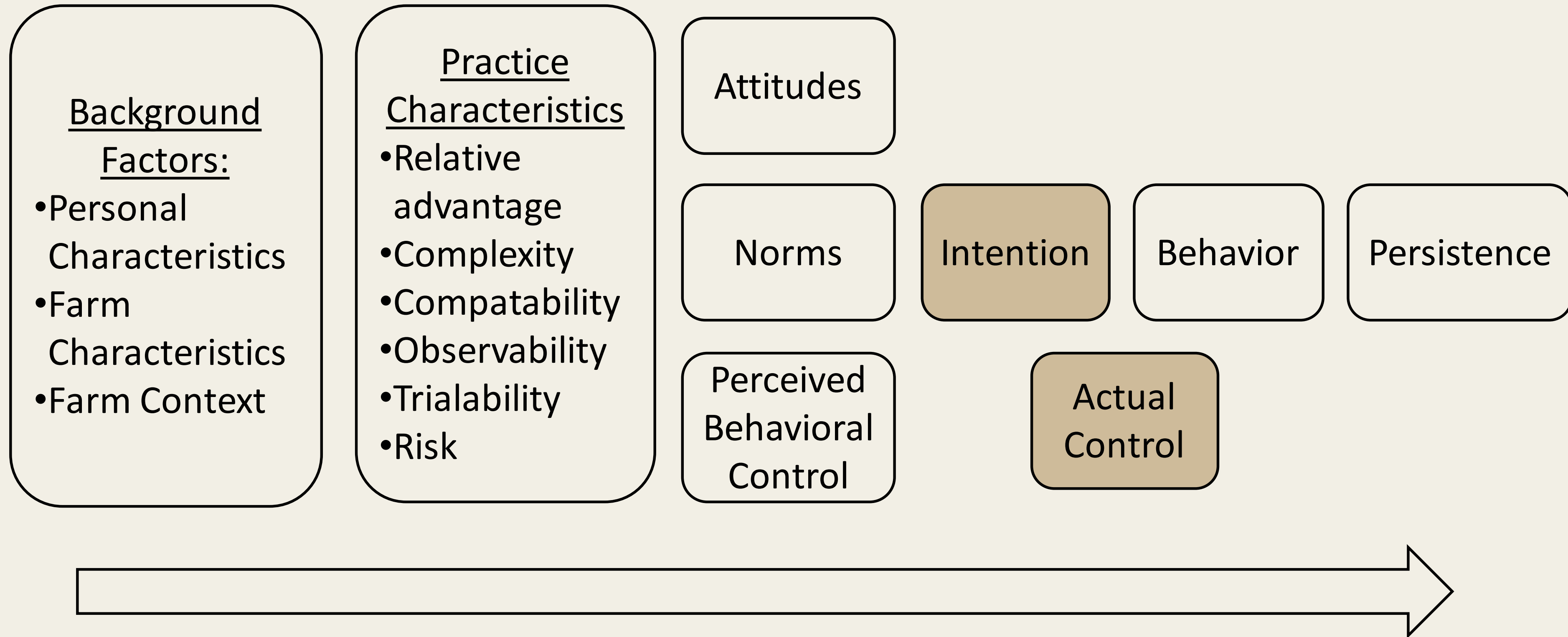
1.5% uptake of financial offer

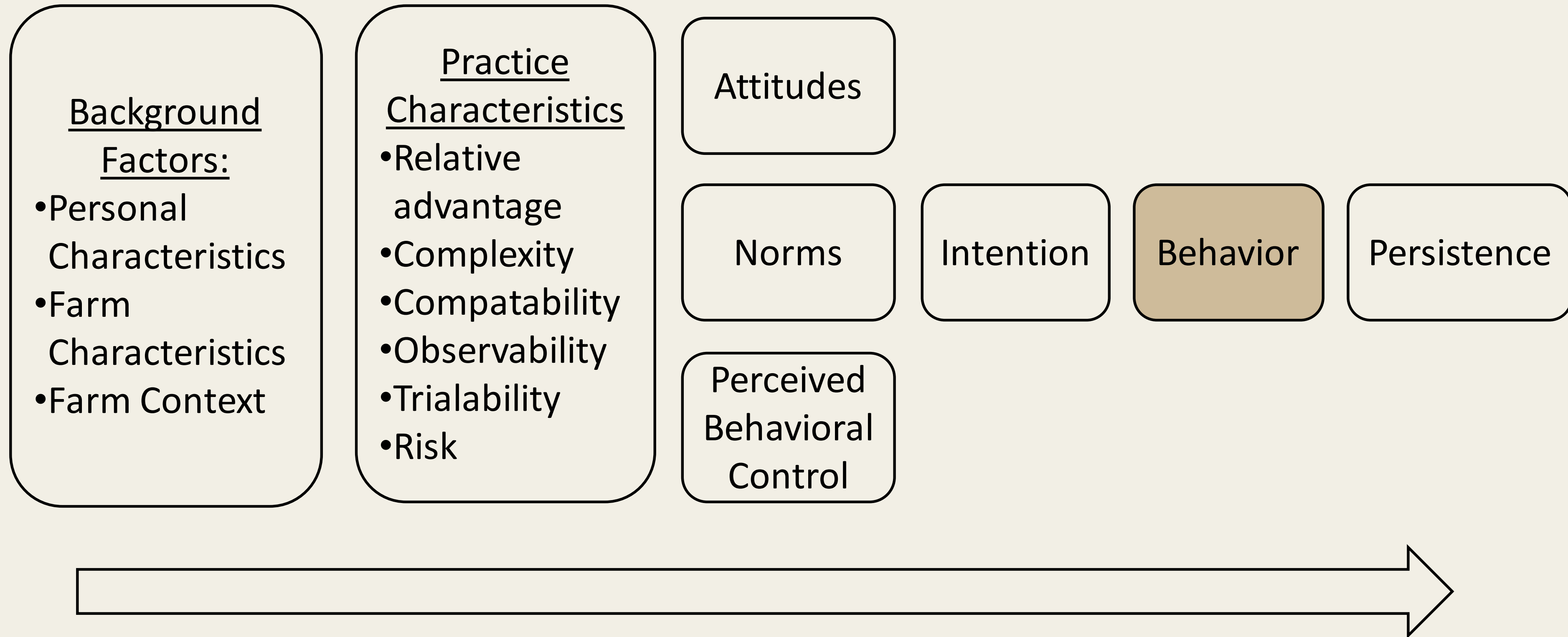


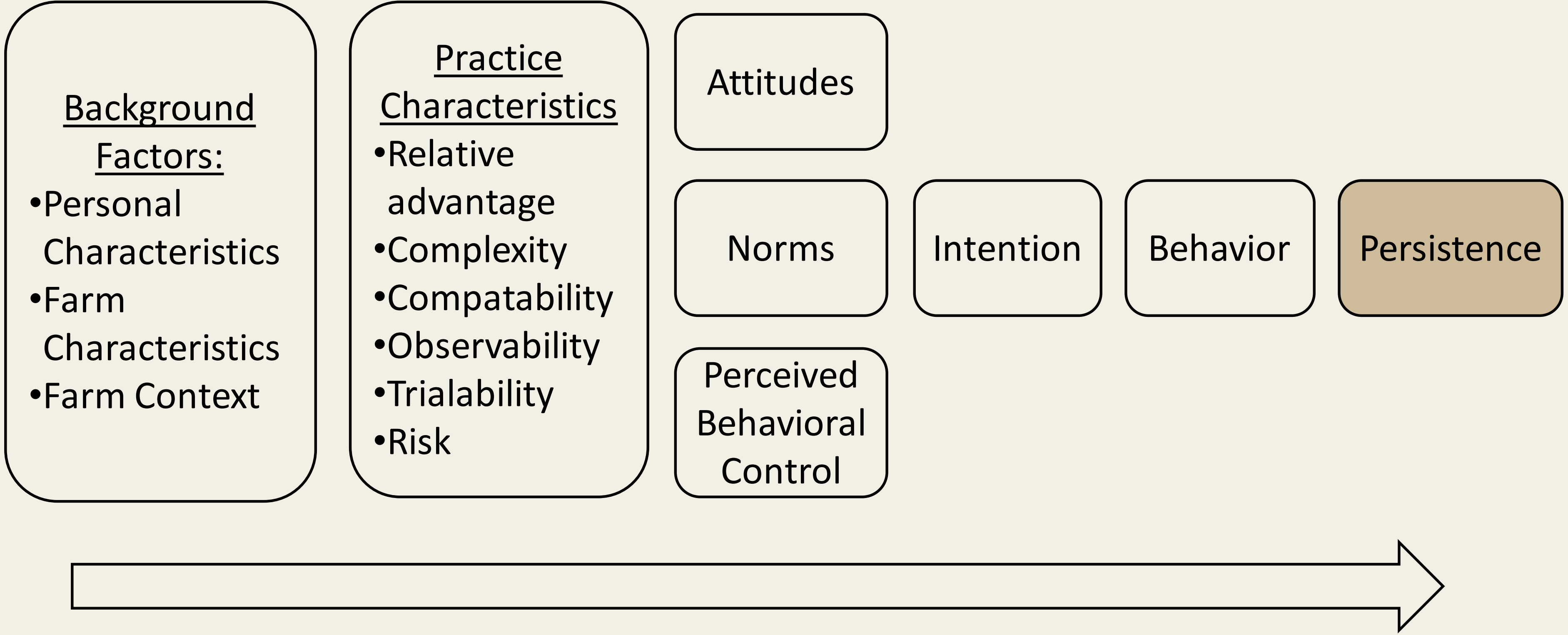
Source: Weigel et al., In Review











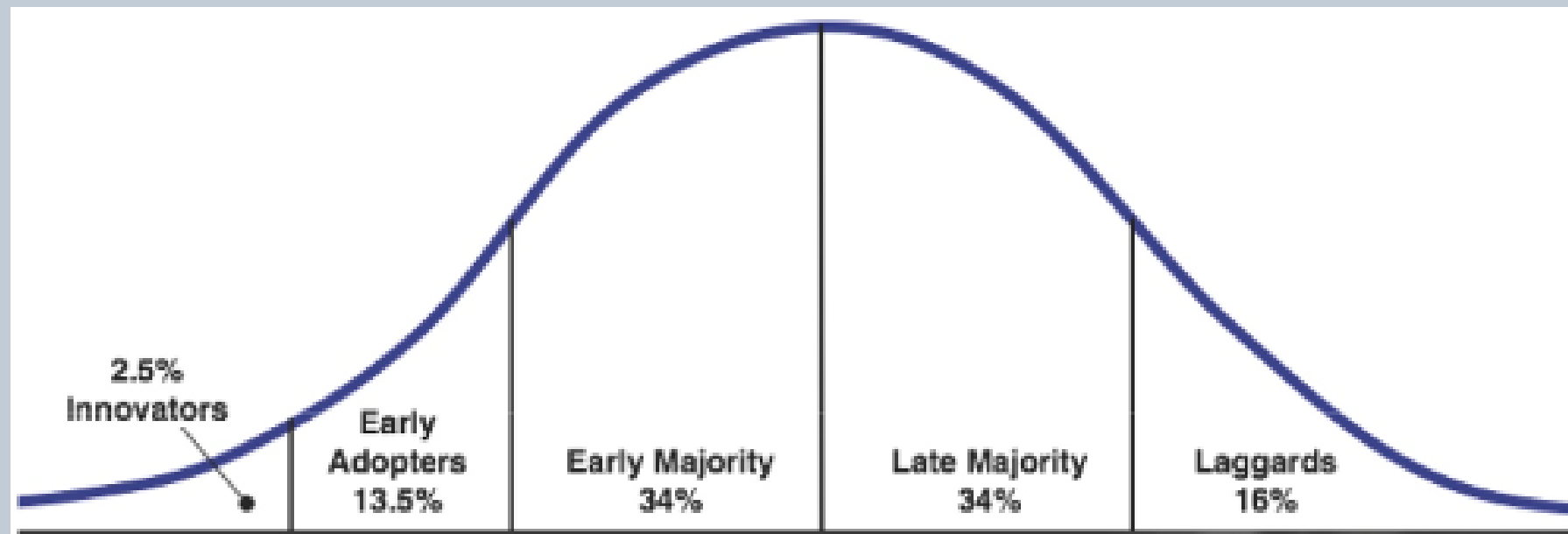
But, Linda, you  
didn't talk  
about...

Financial incentives

Knowledge



# Thank You!



Rogers' Diffusion of Innovations curve

## Linda S. Prokopy



@lprokopy



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