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#### Determining the Barriers to Organic Certification: An Explanatory Analysis of Information

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### Motivation

Public interest in organic foods has increased the popularity of organic farming over the last 40 years worldwide (OTA, 2011; Wiegel, 2009). Double-digit growth in consumer demand for organically labeled foods reached over \$28.6 billion in sales in 2010 in the U.S. (OTA, 2011). Nonetheless, the data shows that organic certification adoption by growers remains low in the U.S. (Greene et al., 2009; USDA-ERS, 2010).

Low adoption rates for organic certification is a response of growers to the structural and institutional barriers of organic agriculture. Since the birth of the organic agriculture movement in the U.S., the lack of information has been reported as a major constraint for farmers adopting organic agriculture (Blobaum, 1983; Fairweather, 1999; Lohr and Salomonsson, 2000; Demiryürek, 2001; Constance and Choi, 2010). With recent concerns related to the lack of information about organic certification, it is important to determine the specific types of information hindering the willingness of farmers to certify.

### **Objectives**

Our objective was to explicitly find what are the types of information, and their determinants, constraining the entry of vegetable farmers to organic certification.

- 1. We explored the main types of information constraining the adoption of organic certification.
- 2. We explored farmer characteristics that may influence the perception that information is a barrier to organic production and certification.

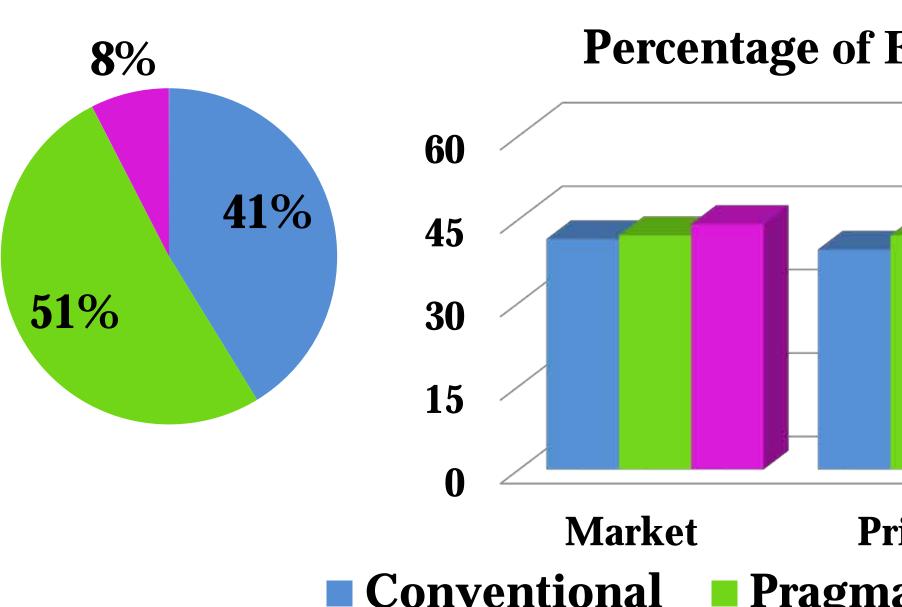
### Methodology

First, a multivariate probit model was used to analyze how different types of information are perceived as barriers to certification by different types of farmers. Second, a series of five probit models were used to determine what are the factors triggering each type of information as barriers.

We obtained 1559 responses that yielded a response rate of 36.15% from our survey. We classified farmers by their farming practices: strictly conventional, strictly certified organic, and pragmatic (mixed farming practices).

# **Determining the Barriers to Organic Certification An Explanatory Analysis of Information**

## **Ariana Torres and Maria Marshall Purdue University**



	Resu	<b>Jlts</b>				
8%	Percentage of Farmers Perceiving Information as a Barrier					
41%	60 45				inf co	
51%	30 15 0			2.	Pro inf	
Marginal Effect	Market Price Proventional Pragmates of the MVP Regres	ic Certified	oduction Certification to Categorize Farmers	3.	Th inf org	
According to the	ir Information Barriers	Marginal Effect (%)		4	Th	
Variable	Conventional	Certified	Pragmatic	1.	an	
RELIAMKT <sup>a</sup>	1.23	-2.63*	1.39		rec	
PRICEINFO <sup>a</sup>	-9.55**	4.86**	4.69		mi	
REQUIREM <sup>a</sup>	11.35***	-1.98	-9.38***			
METHODS <sup>a</sup>	18.26***	-1.71	-16.55***	5.	Gr	
INFOCERT <sup>a</sup>	12.76*	15.89***	3.13		to	
(a) dy/dx is for d	liscrete change of dummy	variable from 0 to 1.			pe	

**Barrier to Adopt Organic Certification** 

			<b>Marginal Effect</b>	(%)		
Variable	Markets	Price	Requirements	Production	Certification	•
EDUCATION	1.33**	0.42	0.73	-1.06*	-0.94**	
NOWHITE <sup>a</sup>	4.34	-0.99	2.82	-0.37	2.69	
YEARFARM	-0.01	-0.01	0.15	-0.02	-0.02	•
ONFARM	0.11	-0.02	-0.03	-0.02	0.02	
NOMKTEXP <sup>a</sup>	-2.96	-2.63	1.91	1.29	1.20	
ORISKY <sup>a</sup>	7.27**	4.69	16.65***	15.44***	14.57***	ſ
<b>OCONFUSE</b> <sup>a</sup>	1.71	12.17***	12.19***	19.05***	28.24***	
DIVERSIFY <sup>a</sup>	-0.17	5.82*	-1.09	3.79	0.60	
<b>ORELIABLE</b> <sup>a</sup>	-16.20***	-5.09*	-8.79***	-10.92***	-9.98***	
<b>EXTENSION</b> <sup>a</sup>	-4.10	1.98	8.08**	11.21***	0.84	
<b>GROWERS</b> <sup>a</sup>	1.68	4.70	-3.72	1.43	-0.47	
DTC <sup>a</sup>	-5.98*	-0.48	-1.99	1.90	5.32*	•
NUMCROP	0.00	-0.01	-0.38***	-0.69***	-0.30***	
NUMMKT	1.18	-0.55	-1.20	-0.20	-1.00	
SMALLFARM <sup>a</sup>	5.97*	5.55*	2.50	-6.10*	2.51	_

(") dy/dx is for discrete change of dummy variable from 0 to 1. Note: Single, double, and triple asterisks (\*,\*\*,\*\*\*) denote statistical significance at the 10%, 5%, and 1% levels, respectively.

### Marginal Effects of the Probit Regression for Likelihood to Perceive Information as a

USDA Organic Research and Extension Initiative (OREI)



### Conclusions

/hile certified farmers consider organic price formation as a barrier, it is not a constraint for their onventional counterparts.

oduction methods and quality and handling formation are less likely to be perceived as barriers by onventional farmers than their pragmatic counterparts.

ne use university extension services as a source of formation increases the likelihood to consider to ganic production information as a barrier to certify.

nere is currently a lack of information about certification nd the complexity and extensive list of organic quirements can be overwhelming for growers that ight be considering conversion.

rowers think that organic certification is confusing due the lack of information, which drives negative erceptions towards certification.

### Implications

onventional, pragmatic and certified farmers perceive fferent types of information as barriers to certify.

ragmatic farmers are potential candidates to adopt ganic certification.

hilosophical reasons, personal motivations, and rmer's perceptions on organic agriculture are gnificant drivers to considering adopting or not organic rtification.

esearch and extension services might need a rerientation of agriculture priorities to support the entry organic certification.

### Acknowledgments