BREAKING NEW GROUND:

farmer perspectives on organic transition

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Breaking New Ground:

FARMER PERSPECTIVES ON ORGANIC TRANSITION

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WHAT IS THE ISSUE?

Organic transition is a hot topic: despite increasing consumer demand for organic food and farm products and double-digit annual sales growth, U.S. organic production is currently flat and unable to meet demand. Organic food manufacturers and other buyers have reported difficulty sourcing enough certified organic food ingredients domestically.

In response, the organic industry, nonprofit organizations, universities, and public agencies are working on multiple levels to support farmers choosing to access the expanding organic market.

In this report, we offer one piece of the puzzle: findings from a national survey of farmers about their experiences with organic transition. We asked farmers about their motivations to transition, the obstacles they face in doing so, and the resources and support that are most helpful during the transition process.

WHO SHOULD READ THIS REPORT?

What we learned should be of interest to a wide range of stakeholders and service providers, including organic sector businesses, organic certifiers, academic and agency researchers, Cooperative Extension, organic advocates, and policymakers.

WHAT DID WE LEARN?

The farms and farmers represented in this study cover a wide range of farm sizes, crop types, farming experience, age, and approach to organic farming. The structure of our survey allowed us to identify and compare results for four categories of farmers that together improve our understanding of the transition process:

- Farmers who have successfully been through the process of transition and are 100% certified organic.
- Farmers who are currently in the midst of transitioning to organic certification.
- Farmers with split certified organic and non-organic operations.
- Farmers who have decided not to pursue organic farming.

We found useful differences among these categories regarding motivations, resources, and support. However, our most compelling findings arose regarding obstacles – including those within a farm's sphere of influence and those beyond the farmer's control – and whether these groups of farmers view them as major, minor, or not an obstacle at all.

Farmers in our study echo long-standing concerns about costs, recordkeeping, on-farm production challenges, infrastructure, and access to profitable markets. Our results make it clear that there is plenty of work to do by a wide variety of organizations and agencies that specialize in crop research, infrastructure development, market development, and policy development related to the organic sector. Guided by compelling survey findings, this report recommends strategies to support the success of farmers who chose organic.

We suggest that those interested and invested in organic transition look closely at the information in this report and identify what they can do to provide support, overcome obstacles, or promote policy to support transition and retain certified organic farmers.

HOW WAS THE STUDY DONE?

The survey was a collaboration between Oregon State University's Center for Small Farms & Community Food Systems and Oregon Tilth, Inc. We surveyed more than 1800 farmers who participated in the U.S. Department of Agriculture's Natural Resources Conservation Services (NRCS) Environmental Quality Incentives Program (EQIP) Organic Initiative between 2010 and 2015, with a focus on transition. The survey's response rate was more than 34% and represents more than 600 producers.

INTRODUCTION

What will encourage the transition of more farms and acres to organic farming systems and certification?

Answering that question has long been of interest to farmers,[1] consumers, and others who value the environmental, economic, and health outcomes related to organic production systems.

In this report, we present the results of a national survey of farmers regarding the transition to organic certification, specifically: what motivates them to transition, what obstacles they face in doing so, and what resources and support are most helpful during the transition process. The report highlights farmers who are currently 100% certified organic, are in the process of transitioning to organic certification, are split certified organic/non-organic, or have decided not to pursue organic farming.

The report is useful for organizations, agencies, and businesses working with farmers and communities, and on policy development to increase domestic production of organic products.

Organic transition is currently a hot topic: despite increasing consumer demand for organic food and farm products and double-digit annual sales growth – 11% in 2015, according to the Organic Trade Association (OTA, 2016)[2] – domestic (U.S.) organic production is currently flat and unable to meet demand (e.g., Greene, 2013; McBride and Greene, 2015). Organic food manufacturers and other buyers have reported difficulty sourcing enough certified organic food ingredients domestically.

[1] *We use "farms" and "farmers" in this report to represent farms, ranches, and dairies and their operators.*
[2] *Organic Trade Association (OTA). (2016). U.S. organic sales post new record of $43.3 billion in 2015. Available at: https://www.ota.com/news/press-releases/19031#sthash.7UCqaHEt.dpuf/ (accessed 11/21/16).*

In response, the organic industry, nonprofit organizations, universities, and public agencies are working on multiple levels to identify and address these challenges. This includes a specific focus on supporting farmers who chose to transition farms and acreage to certified organic (e.g., DiGiacomo and King, 2015; Stephenson, G. et al., 2012; Oregon Tilth's Transition to Organic Network). For example, USDA's Natural Resources Conservation Service (USDA-NRCS), through its Environmental Quality Incentives Program (EQIP) Organic Initiative (OI), provides financial and technical assistance to certified, transitioning, and exempt farmers to support conservation on their land (NRCS, n.d.).

The national survey discussed in this report was conducted by Oregon State University's Center for Small Farms & Community Food Systems and Oregon Tilth, Inc., as part of our ongoing research and education collaboration. The survey also builds on the six-year partnership between Oregon Tilth and USDA-NRCS aimed at supporting organic and transitioning farmers across the U.S. This survey is one element of OSU and Oregon Tilth's research on organic transition.[3] The shared goal of this work is to provide information and resources to our partners and farmers that will support farmers choosing to access the expanding organic market.

In what follows, we briefly describe our methods, present and discuss our survey results, and end with a synthesis and recommendations. ■

METHODS

We surveyed a national population of farmers and ranchers who (a) had an EQIP-OI contract with USDA-NRCS between 2010 (when OI began) and 2015, and (b) self-identified as "transitional" participants in that program.[4] The list included 1,829 farms or individuals.

USDA's National Agricultural Statistics Service (NASS) and the Organic Farming Research Foundation (OFRF) conduct regular national surveys of certified organic farmers to learn the scope of the sector as well as challenges and resource needs.[5]

[3] *Other elements include Lloyd (2016) and Murray and Enelow (2016).*
[4] *OI participants identify as (a) already certified organic, (b) exempt from certification, or (c) transitional; Those "who are transitioning to organic production shall self-certify that they agree to develop and work toward implementing an Organic System Plan (OSP)."*
[5] *The OFRF uses its survey to set research priorities (Jerkins & Ory, 2016) and therefore focuses on challenges and resource needs; the 2011 survey also asked about motivations. See FN6 on the USDA-NASS Organic Survey relative to transitioning farmers. It is worth noting that USDA's Economic Research Service (ERS) has until recently conducted regular surveys to track organic trends by surveying certifiers instead of farmers. See USDA-NASS, (n.d.), for guidance on comparing these and other related USDA datasets.*

The EQIP-OI dataset is unique because it includes two segments of the organic farming population not typically included in the other national organic surveys: transitioning farmers and farmers who began the transition process but then decided not to pursue organic farming. Surveying these farmers provides a valuable and unique glimpse into the transition experience and, for the latter, the obstacles that may prevent completion of that process.[6]

We constructed our survey after reviewing existing, survey-based research during the last decade on farmer motivations, barriers, and other aspects of organic farming [Strochlic and Sierra, 2007 (CA); Stofferahn, 2009 (ND); Johnston, 2010 (NY); Lau et al., 2010 (TX); Cranfield, Henson, and Holliday, 2010 (Canada)].[7]

We designed our questionnaire to be brief in order to increase the response rate. As a consequence, data on some aspects of the population were not collected (e.g., state or region).

The survey was administered by Oregon Tilth using an online platform (Qualtrics) and paper questionnaires. Survey methods followed the protocols of Dillman and Smyth (2014) and guidance from the Oregon State University Survey Research Center (OSU-SRC).

Oregon Tilth, Inc., sent the OI participants a letter on October 1, 2015, by U.S. Mail, that provided background on the purpose of the survey, requested their participation, and provided a unique access code to the online questionnaire to assure anonymity. Each participant received a follow-up postcard several days later. One month later, all non-respondents were mailed a reminder letter and a paper copy of the questionnaire with a pre-paid business reply envelope. One final reminder and paper questionnaire were mailed to the remaining non-respondents on January 21, 2016. The OSU-SRC collected and organized the data. Six hundred and fifteen (615) farmers completed the questionnaire for an adjusted response rate [8] of 34.2%.

The OSU Center for Small Farms & Community Food Systems analyzed the data using IBM SPSS software, with consultation from OSU-SRC. Analysis utilized descriptive statistics including frequencies and cross tabulations. Chi-square tests were used to compare responses among data categories and detect significant differences in the proportion of responses. We use an alpha level of .05 for all statistical tests. As we describe the findings we use the term "significant" to indicate statistically significant and "notable" to indicate important but not statistically significant.

[6] *The one exception is the 2014 USDA-NASS Organic Survey, the only one of NASS's four organic surveys that includes transitioning farmers, who were identified through the 2012 Ag Census; transitioning farms are asked only a few basic questions which complement but do not overlap with our survey.*
[7] *See Lloyd (2016) for a more detailed review of existing research.*
[8] *Using the American Association for Public Opinion (AAPOR) response rate calculator.*

WHAT WE ASKED

Respondents first answered four demographic questions: years farming, number of acres in production, cropping system, and farming system relative to organic certification. We then asked a series of questions to learn what motivated them to transition to organic certification, what were the obstacles, what resources helped them, and what additional support is needed.[9] Farmers were also given several opportunities to provide additional comments, primarily on how to encourage more transition in general. We offer a selection of their responses in this report but will provide a deeper analysis of this qualitative data in future publications.

RESULTS

This report focuses on key findings. We first present results for all respondents as a group. But as is often the case, the aggregate doesn't tell the full story. We then present results for four categories of farmers to gain insights into the transition process from their different perspectives. ■

CHARACTERISTICS OF THE FULL GROUP OF RESPONDENTS

Our respondents and their operations represent a wide range of farm sizes, crop types, farming experience, age, and approach to organic farming (see Table 1). The sample is dominated by smaller scale (60.5%), vegetable farms (54.7%) operated by farmers with less than 10 years' experience (55.5%) who are currently transitioning their farms to organic certification (30.2%). The dominance of this "typical" respondent influences many of our results.[10]

WIDE RANGE OF FARMING EXPERIENCE.

We heard from newer farmers and more experienced farmers. More than half (55.5%) have been farming fewer than 10 years –and are what are currently considered by the USDA as Beginning Farmers and Ranchers (BFRs) – but 27% have more than 20 years of experience.

WIDE RANGE OF AGES.

The farmers are fairly evenly distributed in age. Most farmers are middle-aged with nearly 60% between 46 and 65. More than 25% are under 45 years old.

[9]The questionnaire also included a section specific to respondents' experience with the NRCS EQIP-OI program. Analysis and reporting of those results will occur separately.

[10]Without similar demographic data for the 1,829 farms, we cannot say whether our sample is more or less representative of that population, which itself overlaps with but is not the same as the certified organic farmers typically surveyed by USDA-NASS and OFRF.

SMALLER FARMS BUT LARGER ALSO...

Although most farms are smaller scale, we also heard from mid-scale and large-scale farmers. The majority (60.5%) farm fewer than 25 acres, while more than 20% farm more than 100 acres.[11]

MOSTLY VEGETABLES, BUT A WIDE ARRAY OF OTHER CROPS.

More than half of the farms (54.7%) primarily produce vegetables. Another 13.3% produce fruits or nuts. Nearly one-third of the farms (32.0%) produce extensive crops including grains and legumes (12.6%), livestock (16.0%) and dairy (3.4%).[12]

TABLE 1. DEMOGRAPHICS: FULL SAMPLE

CATEGORY		PERCENT
EXPERIENCE	0 to 5 years	24.6
	5 to 10 years	30.9
	10 to 20 years	17.6
	20 years or more	26.9
AGE	18 to 35 years	11.5
	36 to 45 years	15.4
	46 to 55 years	25.1
	56 to 65 years	33.6
	66 to 75 years	13.3
	76 years or older	1.2
FARM SIZE	0 to 25 acres	60.5
	26 to 100 acres	18.4
	101 to 500 acres	15.6
	501 to 1,000 acres	3.1
	More than 1,000 acres	2.4
CROPS[13]	Vegetables	54.7
	Fruits/Nuts	13.3
	Grain/Legumes	12.6
	Livestock	16.0
	Dairy	3.4
CERTIFICATION	100% Certified Organic	26.8
	Transitioning	30.2
	Split (Certified Organic/Non-Organic)	11.2
	Not Pursuing Organic Farming	16.4
	Exempt from Certification	15.3

[11] *There is a payment limit for EQIP OI financial assistance that is lower than standard EQIP. The effect of this on the sample regarding farm size is not known.*
[12] *The survey asked which cropping system "best describes" their production. The online version allowed only one answer. The paper version asked for one answer, but of 614 responses to the question 166 indicated multiple crops; 35 indicated "other."*
[13] *See footnote #12*

VARIETY OF APPROACHES TO ORGANIC FARMING

We asked farmers the status of their farms relevant to organic certification. About 30% are in the process of transitioning to organic certification and about 27% are currently certified organic, having completed their certification after finalizing their EQIP-OI contract. Split operations – part certified organic, part non-organic – represent about 11% of farms. About 15% are considered "exempt" from certification.[14] Of special interest, about 16% of the farms responded that they are "not pursuing organic farming," offering us the opportunity to examine why some farmers initially pursue it but then change their minds. This report does not include an analysis of "exempt" farms; we will cover this group in future reports. ■

MOTIVATIONS, BARRIERS, RESOURCES, AND SUPPORT: RESULTS FOR THE FULL SAMPLE

MOTIVATIONS

We asked respondents what initially motivated them to transition to organic farming, providing a list of possible motivations including "market or profit" motivations and "values-based" motivations. Table 2 indicates what percentage of respondents said yes to those factors.

[14] *"Exempt" as defined in the USDA National Organic Program regulations (7 CFR Part 205) means farming organically and marketing as such but exempt from certification due to having under $5,000 in annual sales.*

TABLE 2. MOTIVATIONS: FULL SAMPLE

MOTIVATION		% YES
VALUES-BASED	Fits my and/or my family's values	91.3
	Concerns about environment	86.7
	Potential enhancement of farm sustainability	86.5
	Concerns about human health	86.3
MARKET/PROFIT	Access the expanding market for organics	61.6
	Potential increase in profit	60.8
	Specific market opportunity or contract from a buyer	32.7

Six of the seven motivations were selected by at least 60% of all respondents. However, the farmer/farm family's values were the most frequently cited motivation at over 90%, followed closely by concerns about the environment, enhancement of farm sustainability, and concerns about human health. Access to the expanding market and increased profit were less cited but still notable, and having a specific market opportunity or contract was the least cited. The high ranking of values-based motivations is not surprising considering the sample is made up of farmers who self-selected to participate in the EQIP OI and therefore had a potentially higher level of interest in organic or sustainable farming than the general farm population.

What motivates farmers to transition their farms to organic?
In their own words:

- ***"For us, it's about our value system. We believe we are the stewards of the land."***
- ***"We believe in organic practices because it's the right thing to do for the environment. However, to get more farmers involved, there need to be more economic incentives – price premiums and/or subsidies."***
- ***"I think money will be the motivating factor. I have personal beliefs motivating me to farm organically, but I have seen the benefits financially."***

OBSTACLES

Respondents were given a list of potential obstacles to organic transition – related to costs, production, and marketing – and were asked whether each was a major obstacle, a minor obstacle, or not an obstacle. We categorize each obstacle as being major, minor, or not an obstacle based on the highest response percent of 40% or more (although in two instances we allowed 39.6%). When the response in all categories is below 40% we identify the obstacle as having "no clear trend." This simple approach does not capture subtleties of the responses. For instance, obstacles in the "not an obstacle" category were still typically identified as major or minor by some farmers. We encourage readers to examine the data for their own assessment.

As shown in Table 3, farmers identified two obstacles as major: weed management, and the cost of organic certification. Among the seven minor obstacles, the top three are the learning process, recordkeeping requirements of organic certification, and the cost of organic inputs. Four obstacles are identified as not an obstacle including: planning crop rotations, reduced yields, finding buyers for organic products, and access to technical expertise. This finding for reduced yields is interesting, because "yield drag" has long been thought to be a significant challenge for organic producers and organic agriculture broadly,[15] yet nearly 17% of our respondents said it was a major obstacle, and 83% said it was minor (32%) or not an obstacle at all (51%).

Five obstacles have no clear trend as major, minor, or not obstacles. For instance, although the cost of labor is considered a major obstacle for over 35% of farmers, nearly as many (33.5%) consider it not an obstacle and less than 30% consider it a minor obstacle. In these instances, there is no clear consensus on the obstacle, but it does not diminish the obstacle's importance.

What are the obstacles to organic transition? In their own words:

- ***"It's easier to get a marriage or driver's license than to do the paperwork on organic certification."***
- ***"The burden of proof needs to shift from the organic farmer having to document every seed, every drop of spray ... Conventional agricultural products make more sense to track as they have much greater potential negative side effects... This shifts the cost burden."***

[15] *On the "yield gap" see Reganold and Wachter (2016) and Kniss, Savage, and Jabbour (2016).*

TABLE 3. OBSTACLES: FULL SAMPLE

OBSTACLES	PERCENT		
	MAJOR	MINOR	NOT AN OBSTACLE
MAJOR OBSTACLE			
Weed management	52.9	30.7	16.4
Cost of organic certification	43.2	37.5	19.3
MINOR OBSTACLE			
Learning process	16.7	47.1	36.2
Recordkeeping requirements of organic certification	40.0	43.6	16.4
Cost of organic inputs	32.7	42.6	24.7
Managing soil fertility	23.9	42.1	34.0
Availability of organic inputs (seed, fertilizer, etc.)	19.5	40.6	39.9
Obtaining organic price premiums	30.3	39.6	30.1
Obtaining organic price information	22.1	39.6	38.3
NO CLEAR TREND			
Availability of organic processing facilities	38.2	25.4	36.4
Cost of labor	36.6	29.8	33.5
Pest or disease control	35.7	38.9	25.4
Availability of labor	28.7	38.0	33.3
Obtaining adequate prices during transition	26.1	36.2	37.6
NOT AN OBSTACLE			
Planning crop rotations	8.4	39.4	52.2
Reduced yields	16.7	32.2	51.1
Finding buyers/markets for my organic products	19.7	31.3	48.9
Access to knowledge technical expertise on organic production	19.6	39.1	41.3

MAJOR MINOR NOT AN OBSTACLE NO CLEAR TREND

RESOURCES

Respondents were then given a list of 10 different resources and asked to choose up to five that would be (or would have been) most beneficial during transition. Table 4 ranks these resources in order of how many respondents selected them (number 1 is the top rank). Three of the top five resources are production-oriented and two of the five are market-oriented.

TABLE 4. RESOURCE RANKING: FULL SAMPLE

RESOURCE	RANK
THE GROUP'S TOP 5	
Information on organic pest, disease, and weed management	1
Information on soil health management for organic farms	2
Information on organic markets (trends, opportunities, pricing)	3
Information on effective organic crop rotations for your region	4
Market development for organic products	5
LESS IMPORTANT	
Information on organic crop varieties	6
Financial planning tools for transitioning to organic	7
Advance contracts from buyers during transition	8
Certified transition label	9
Organic and/or transition crop enterprise budget templates	10

Farmers also called for consumer-focused resources, for example, "more public awareness of the health and environmental benefits of organic farming and why it may cost more to bring organic to the table."

SUPPORT

Once we know what topics are most important to transitioning farmers, we also have to learn how they prefer to receive that information and guidance. Respondents were asked to choose their top two of five types of support. As shown in Table 5, high contact support was preferred, with mentoring from experienced organic farmers most valued and one-on-one technical assistance at number two.

In person workshops—still high contact—were ranked number 3, and books and other printed materials and online courses and webinars ranked lower. The ranking of form of support does not necessarily reject it but simply ranks farmer preferences without regard to cost or complexity.

TABLE 5. SUPPORT RANKINGS: FULL SAMPLE

TYPE OF SUPPORT	RANK
Mentoring from experienced organic farmers	1
One-on-one technical assistance during transition	2
In person workshops or short courses	3
Books or other printed materials	4
Online courses or webinars	5

On resources, in their own words:

- ***"Success speaks volumes. If [farmers] could only see a neighbor overcoming common production problems, growing grains successfully, milking cows successfully, whatever the crop – if they could SEE success, they would begin to get curious and start to do the math!"***
- ***"One on one mentorship with certified organic growers would be tremendous."***
- ***"[In my region] extension agents are available for conventional farmers but none for organic farmers."***
- ***"The time required for a small operation to manage transition is almost insurmountable... because of my small scale. I haven't made progress at all. Having a mentor to help me get started with the paperwork and recordkeeping would help a lot."***

PROFILES OF SPECIFIC FARMER CATEGORIES

While the aggregate results are useful, they cannot tell us the full picture or suggest how to inform or support specific groups of farmers transitioning to organic certification. To do this, we examined specific categories of respondents to see (1) how they are different in terms of their demographics, and (2) whether and how those differences influence their responses regarding motivations, obstacles, resources, and support. This approach allows "market segmentation" that meets the needs and attitudes of specific groups.

Of the categories we examined, those based on status of organic certification – 100% Certified, Split, Transitioning, and Not Pursuing Organic Farming – showed significant and notable differences[16] and provide the most compelling information on the transition process for farmers.

For each of these, we provide a short description based on demographics and then discuss variation related to motivations and obstacles. We discuss resource and support rankings together at the end of this section. ■

[16] *We also examined beginning farmers and ranchers, young farmers, groups by crop type (e.g., vegetables v. fruits/nuts), and exempt certification status. Summary results for BFRs are offered in the BFR Box. The others will be discussed in future publications.*

BEGINNING FARMERS AND RANCHERS

The USDA defines a beginning farmer or rancher (BFRs) as someone who has "…not operated a farm or ranch, or who has operated a farm or ranch for not more than 10 consecutive years." BFRs are an important category to consider because USDA and other public agencies offer an array of programs designed to support BFRs; some lenders have dedicated loan programs for BFRs; and numerous universities and non-profit organizations provide educational programming for BFRs.

The "BFR" category includes more than half of the participants in this study: 55% have less than 10 years' farming experience, and nearly 25% have less than five years.[17] Compared with the experienced farmers in our study, BFRs tend to operate smaller farms, produce vegetables, and be in the process of transition to organic certification. While BFRs tend to be younger as a category than experienced farmers, they are actually bimodal in age, with the majority over 45 years old and the largest segment between 46 and 65 years old.[18]

However, while there are significant demographic differences between BFRs and experienced farmers, the two groups are fairly similar regarding motivations. BFRs are more motivated by organic farming values, with a significantly higher percentage motivated by their or their family's values, concerns about human health, and concerns about the environment.

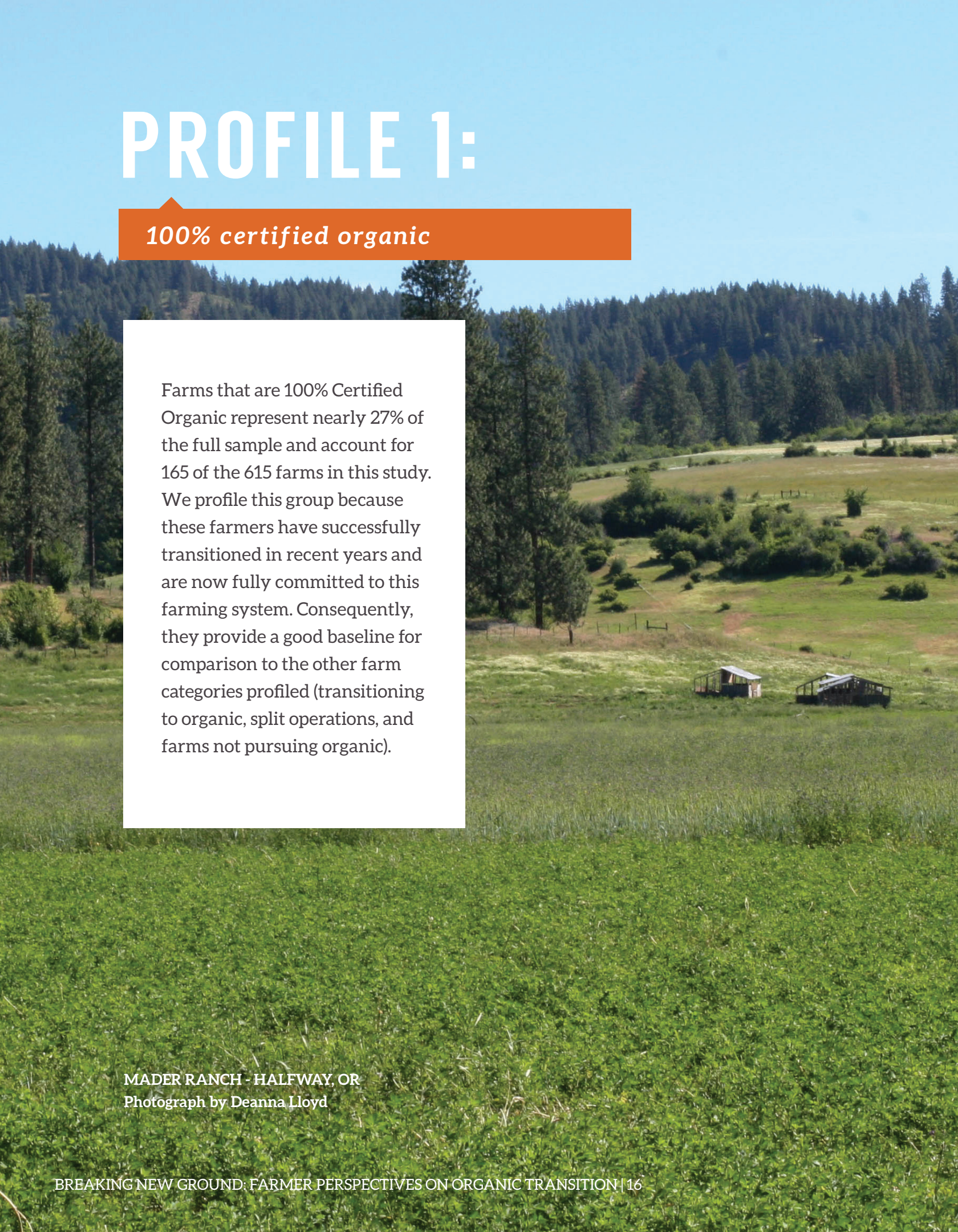
The two groups are essentially the same regarding obstacles with no significant differences. They agree on 3 of their 5 top resources: information on organic pest, disease, and weed management, soil health management for organic farms, and organic markets. They also agree on their top 2 forms of support: mentoring from experienced organic farmers, and one on one technical support.

[17] *Categories for years of experience were "0 to less than 5" and "5 to less than 10" and do not align perfectly with USDA's definition of "not more than 10" but are a close approximation.*
[18] *This older set of BFRs reflects an identified category of farms "retiring to farming" from another career. See Kirkpatrick 2013.*

PROFILE 1:

100% certified organic

Farms that are 100% Certified Organic represent nearly 27% of the full sample and account for 165 of the 615 farms in this study. We profile this group because these farmers have successfully transitioned in recent years and are now fully committed to this farming system. Consequently, they provide a good baseline for comparison to the other farm categories profiled (transitioning to organic, split operations, and farms not pursuing organic).



MADER RANCH - HALFWAY, OR
Photograph by Deanna Lloyd

DEMOGRAPHICS

Farmers in the 100% Certified Organic category have a fairly even distribution of experience from less than five years to more than 20 years. Like the whole sample, more than half have less than ten years of experience, but nearly 25% have 20 or more years' experience.[19]

TABLE 6. DEMOGRAPHICS: 100% CERTIFIED ORGANIC

CATEGORY		PERCENT
EXPERIENCE	0 to 5 years	21.8
	5 to 10 years	33.3
	10 to 20 years	20.0
	20 years or more	24.8
AGE	18 to 35 years	15.3
	36 to 45 years	19.0
	46 to 55 years	26.4
	56 to 65 years	28.2
	66 to 75 + years	11.0
FARM SIZE	0 to 25 acres	54.5
	26 to 100 acres	20.0
	101 to 500 acres	23.0
	501 to 1,000 acres	2.4
CROPS[20]	Vegetables	57.1
	Fruits/Nuts	7.6
	Grain/Legumes	18.5
	Livestock	8.4
	Dairy	8.4

[19] Nationally, 28% of certified organic farms have less than 10 years' experience (compared with 21% of all farms) and 47% have more than 20 years'. (USDA-NASS, 2014, Table 51; USDA-NASS, 2012).

[20] Of 164 responses to this question, 38 farms indicated more than one crop; 7 farms indicated "other."

The 100% Certified Organic category is slightly younger than the full sample with about 34% of them 45 years or younger compared to about 27% for the full sample. Nearly 40% of 100% Certified organic farmers are over 55 compared to slightly over 48% for the full sample.

The majority of 100% Certified Organic farmers in this study are farming 25 or fewer acres. However, mid-scale farms are well represented with more than 25% of farms over 100 acres.

Well over 50% of the 100% Certified Organic farms produce vegetables. In fact, nearly two-thirds of these farms produce intensive crops (vegetables, fruits/nuts). However, there is still a diversity of crops with over 35% of the farms operating more extensive cropping systems (grains/legumes, livestock, dairy). In fact, regarding crop type, the 100% Certified Organic category includes nearly 80% of the dairy farms in our study and nearly half of the grain/legume farms.

MOTIVATIONS TO TRANSITION TO ORGANIC

The 100% Certified Organic farmers reveal a high level of commitment to some of the values-based foundations of the organic farming movement (Table 7). These farmers rated values-based motivations higher than the full sample. 100% Certified Organic farmers are pragmatic too, rating "potential increase in profit" higher than the full sample (67.9% vs 60.8%). The importance of "access to the expanding market for organics" is slightly less but not different than for the full sample (59.7% vs 61.6%).

TABLE 7. MOTIVATIONS: 100% CERTIFIED ORGANIC

MOTIVATION	PERCENT
VALUES-BASED	
Fits my and/or my family's values	95.0
Potential enhancement of farm sustainability	91.0
Concerns about environment	90.1
Concerns about human health	89.5
MARKET/PROFIT	
Potential increase in profit	67.9
Access the expanding market for organics	59.7
Specific market opportunity or contract from a buyer	34.2

OBSTACLES TO ORGANIC TRANSITION

As shown in Table 8, 100% Certified Organic farmers noted only weed management as a major obstacle. These farmers also identified seven minor obstacles; the top three are recordkeeping requirements of organic certification, the cost of organic inputs, and the availability of organic inputs. Six obstacles are identified as "not an obstacle" and include finding buyers for my organic products, planning crop rotations, and reduced yields, among others.

Now that we have a sense of 100% Certified Organic farmers, we can use them as the basis of comparison for transitioning farmers, split farmers, and farmers not pursuing organic farming.

TABLE 8. OBSTACLES: 100% CERTIFIED ORGANIC

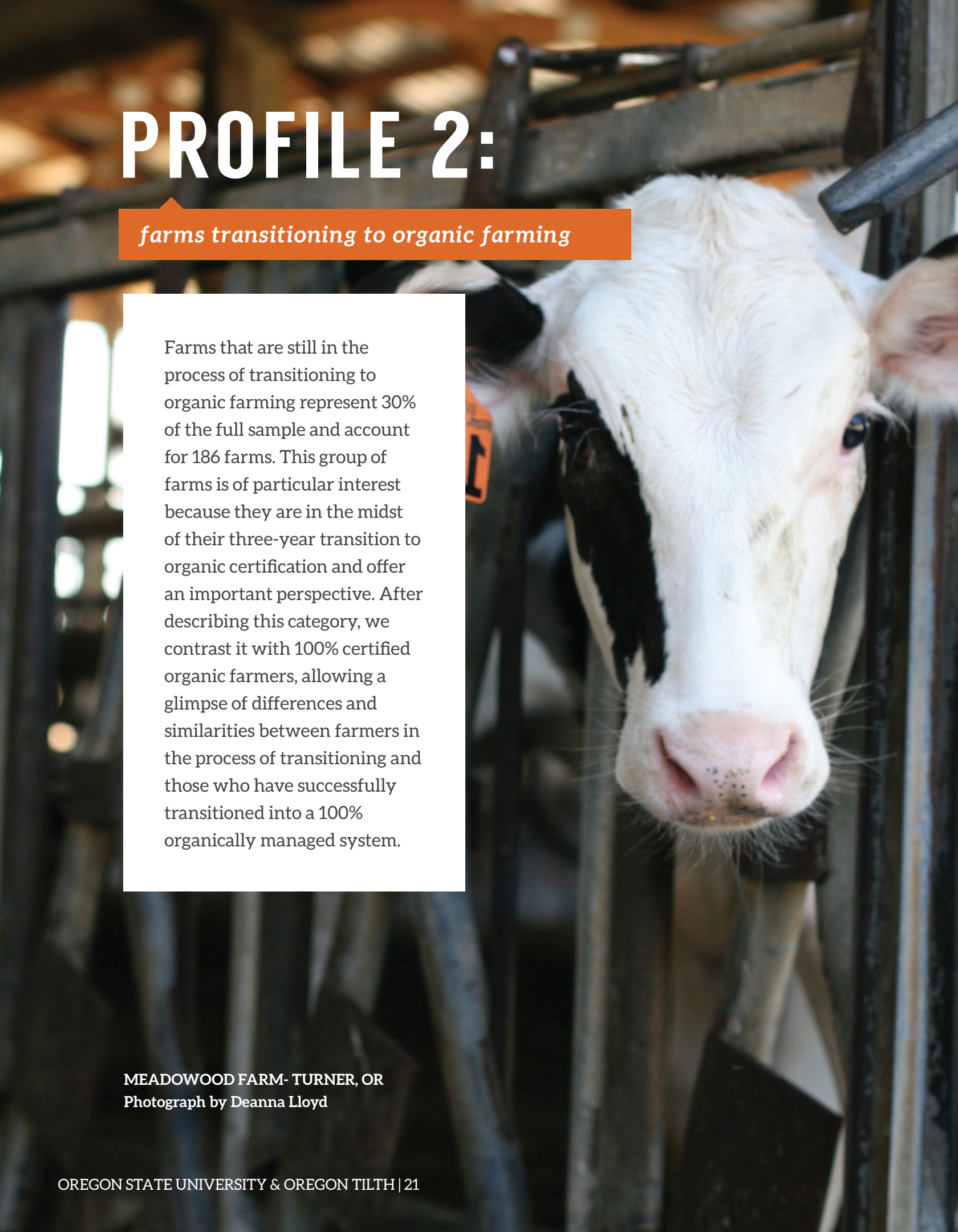
OBSTACLES	PERCENT		
	MAJOR	MINOR	NOT AN OBSTACLE
MAJOR OBSTACLE			
Weed management	54.3	28.4	17.3
MINOR OBSTACLE			
Recordkeeping requirements of organic certification	30.6	48.1	21.3
Cost of organic inputs	29.4	46.6	23.9
Availability of organic inputs (seed, fertilizer, etc.)	18.1	45.6	36.3
Managing soil fertility	25.0	43.3	31.3
Cost of organic certification	19.5	43.8	37.2
Learning process	18.9	42.8	38.4
Pest or disease control	28.9	41.5	29.6
NO CLEAR TREND			
Availability of organic processing facilities	38.9	25.7	35.4
Obtaining organic price premiums	28.3	35.8	35.8
Availability of labor	26.5	38.1	35.4
Obtaining organic price information	24.2	37.3	38.5
NOT AN OBSTACLE			
Finding buyers/markets for my organic products	16.0	29.0	54.9
Planning crop rotation	11.0	34.4	54.5
Reduced yields	17.6	31.0	51.4
Access to knowledgeable technical expertise on organic production	19.3	37.9	42.9
Obtaining adequate prices during transition	24.6	32.6	42.8
Cost of labor	32.0	27.5	40.5

MAJOR MINOR NOT AN OBSTACLE NO CLEAR TREND

PROFILE 2:

farms transitioning to organic farming

Farms that are still in the process of transitioning to organic farming represent 30% of the full sample and account for 186 farms. This group of farms is of particular interest because they are in the midst of their three-year transition to organic certification and offer an important perspective. After describing this category, we contrast it with 100% certified organic farmers, allowing a glimpse of differences and similarities between farmers in the process of transitioning and those who have successfully transitioned into a 100% organically managed system.



MEADOWOOD FARM- TURNER, OR
Photograph by Deanna Lloyd

DEMOGRAPHICS

In general, transitioning farmers do not have many years of farm experience, are youthful but still include middle-aged farmers, operate mostly smaller farms, and produce vegetables.

TABLE 9. DEMOGRAPHICS: TRANSITIONING FARMS

CATEGORY		PERCENT
EXPERIENCE	0 to 5 years	33.5
	5 to 10 years	34.1
	10 to 20 years	13.0
	20 years or more	19.5
AGE	18 to 35 years	12.1
	36 to 45 years	19.9
	46 to 55 years	22.1
	56 to 65 years	32.0
	66 to 75 + years	13.8
FARM SIZE	0 to 25 acres	65.6
	26 to 100 acres	17.7
	101 to 500 acres	11.3
	501 to 1,000 acres	5.4
CROPS[21]	Vegetables	52.5
	Fruits/Nuts	15.3
	Grain/Legumes	11.9
	Livestock	17.8
	Dairy	2.5

[21] *Of 186 responses to this question, 56 farms indicated more than one crop; 12 indicated "other."*

Transitioning farmers, as a group, have less farming experience compared with the full sample and the other categories of farmers profiled in this report. Fully two-thirds are beginning farmers and ranchers (BFRs), with less than 10 years of experience. This group also has the highest number of farmers with fewer than 5 years' experience.

Farming experience and age are not necessarily correlated. Transitioning farmers, like 100% Certified Organic farmers, are younger than the full sample but also include older farmers: over 45% are more than 55 years old.

Transitioning farms include a high percentage, nearly 66%, of smaller farms (0 to 25 acres). This is the highest rate among the farm categories profiled in this report and higher than the full sample (60.5%). Still, nearly 17% of the farms are 101 to over 1000 acres.

Over half of Transitioning farms produce vegetables, but other crops (fruits and nuts, grains and legumes, livestock, dairy) are well represented.

MOTIVATIONS

Transitioning and 100% Certified Organic farmers are similar in their values-based motivations to transition to organic certification. Transitioning farmers are significantly more motivated by "access to the expanding market for organics" than 100% Certified Organic farmers (70.8% v. 59.7%). Transitioning farmers are less motivated (though not significantly) by a "potential increase in profit" (61.2% v. 67.9%).

TABLE 10. MOTIVATIONS: TRANSITIONING V. 100% CERTIFIED ORGANIC

MOTIVATION	TRANSITIONING (%)	100% CERTIFIED ORGANIC (%)
VALUES-BASED		
Fits my and/or my family's values	92.9	95.0
Concerns about environment	92.3	90.1
Potential enhancement of farm sustainability	91.0	91.0
Concerns about human health	90.2	89.5
MARKET/PROFIT		
Access the expanding market for organics[1]	70.8	59.7
Potential increase in profit	61.2	67.9
Specific market opportunity or contract from a buyer	34.9	34.2

[1]p=.033

OBSTACLES

Transitioning farmers and 100% Certified Organic farmers are similar in their view of obstacles to transitioning to organic certification with some exceptions. There is strong agreement between the two groups of farmers on weed management as a major obstacle, but Transitioning farmers also rate the cost of organic certification and the recordkeeping requirements of organic certification as major obstacles while 100% Organic farmers rate them as minor obstacles. These are significant differences.

Transitioning farmers identify six obstacles as minor and are in agreement with 100% Organic farmers on three: learning process, managing soil fertility, and cost of organic inputs. One notable difference is that Transitioning farmers identify obtaining adequate prices during transition as a minor obstacle, while 100% Organic farmers rate it as not an obstacle.

Other differences are minimal and include that Transitioning farmers do not show a clear trend regarding the cost of labor and pest or disease control, where for 100% Certified Organic farmers, the former is not an obstacle and the latter is a minor obstacle. ■

TABLE 11. OBSTACLES: TRANSITIONING V. 100% CERTIFIED ORGANIC

OBSTACLES	TRANSITIONING (%)			100% CERTIFIED (%)		
	MAJOR	MINOR	NOT AN OBSTACLE	MAJOR	MINOR	NOT AN OBSTACLE
MAJOR OBSTACLE						
Weed management	48.9	32.6	18.5	54.3	28.4	17.3
Cost of organic certification[1]	47.8	35.3	16.8	19.5	43.3	37.2
Recordkeeping requirements of organic certification[2]	44.6	41.2	14.1	30.6	48.1	21.3
MINOR OBSTACLE						
Learning process	18.1	47.8	34.1	18.9	42.8	38.4
Obtianing organic price information	19.9	43.5	36.7	24.2	37.3	38.5
Obtaining organic price premiums	27.9	43.5	28.6	28.3	35.8	35.8
Obtaining adequate prices during transition	27.9	41.6	30.5	24.6	32.6	42.8
Managing soil fertility	22.1	40.3	37.6	25.0	43.8	31.3
Cost of organic inputs	34.8	40.3	24.9	29.4	46.6	23.9
NO CLEAR TREND						
Cost of labor	36.7	28.4	34.9	32.0	27.5	40.5
Pest or disease control	36.1	37.8	26.1	28.9	41.5	29.6
Availability of labor	27.5	38.9	33.5	26.5	38.1	35.4
NOT AN OBSTACLE						
Reduced yields	11.0	35.7	53.2	17.6	31.0	51.4
Planning crop rotations	7.2	41.6	51.2	11.0	34.4	54.5
Finding buyers/markets for my organic products	16.9	35.5	47.6	16.0	29.0	54.9
Availability of organic inputs	22.1	33.1	44.8	18.1	45.6	36.3
Access to knowledgeable technical expertise	18.1	40.1	41.8	19.3	37.9	42.9
Availability of organic processing facilities	38.5	20.0	41.5	38.9	25.7	35.4

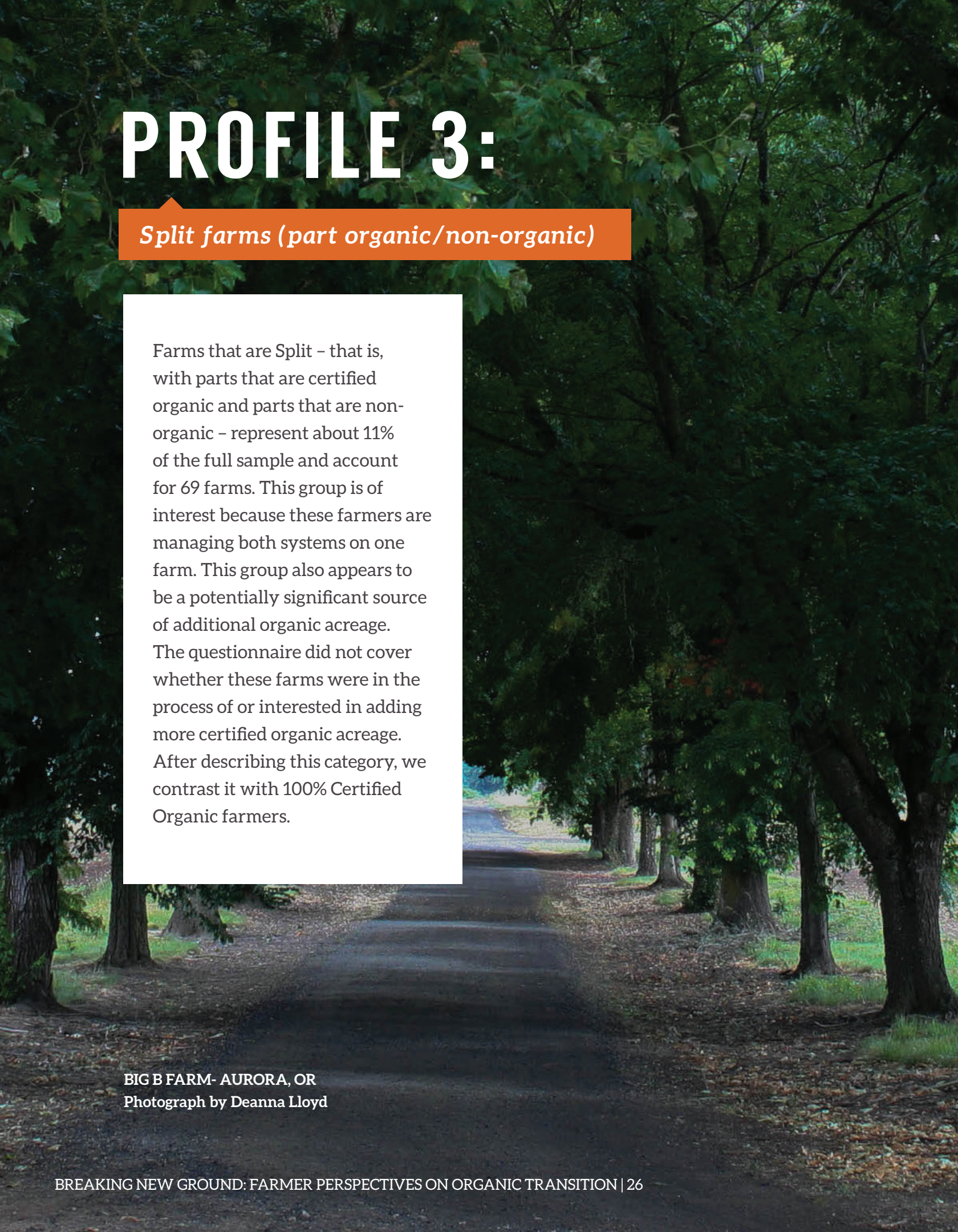
[1]p<.001; [2]p=.022

MAJOR MINOR NOT AN OBSTACLE NO CLEAR TREND

PROFILE 3:

Split farms (part organic/non-organic)

Farms that are Split – that is, with parts that are certified organic and parts that are non-organic – represent about 11% of the full sample and account for 69 farms. This group is of interest because these farmers are managing both systems on one farm. This group also appears to be a potentially significant source of additional organic acreage. The questionnaire did not cover whether these farms were in the process of or interested in adding more certified organic acreage. After describing this category, we contrast it with 100% Certified Organic farmers.



BIG B FARM- AURORA, OR
Photograph by Deanna Lloyd

DEMOGRAPHICS

This category includes the most experienced farmers with over 68% having 10 to 20 or more years of farming experience. In fact, over 50% have 20 or more years of farming experience. This category also has the fewest least experienced farmers with only 8.7% having 0 to 5 years of farming experience.

Age follows experience to some extent, and Split farmers are older, having fewer farmers in the 18 to 35-year range (13.4%) than other farmer categories profiled in this study and with a large segment in the 56 to 65 year range (37.3%).

Split farms are larger than other farm categories. More than 50% operate more than 101 acres and nearly 25% operate 501 to more than 1000 acres. There are also a notable number of smaller farmers as well, with more than 25% in the 0 to 25 acre range.

Split farms include fewer vegetable farms and more fruit, nut, grain, and legume farms than other categories of farms we profile in this study.

TABLE 12. DEMOGRAPHICS: SPLIT FARMS

CATEGORY		PERCENT
EXPERIENCE	0 to 5 years	8.7
	5 to 0 years	23.2
	10 to 20 years	14.5
	20 years or more	53.6
AGE	18 to 35 years	13.4
	36 to 45 years	11.9
	46 to 5 years	26.9
	56 to 65 years	37.3
	66 to 75 + years	10.5
FARM SIZE	0 to 25 acres	27.5
	26 to 100 acres	20.3
	101 to 500 acres	27.5
	501 to 1,000 acres	24.6
CROPS[22]	Vegetables	40.0
	Fruits/Nuts	22.2
	Grain/Legumes	24.4
	Livestock	13.3
	Dairy	0.0

MOTIVATIONS

Split farmers tend to be more motivated by values-based rather than market or profit motivations but not to the degree of other farmers in this study. For instance, although Split farmers are similar to 100% Certified Organic farmers regarding potential increase in profit and access to the expanding market for organics, they are significantly less driven by the values-based motivations.

[22] *Of 69 responses, 23 farms indicated more than one crop; 1 farm indicated "other."*

TABLE 13. MOTIVATIONS: SPLIT V. 100% CERTIFIED ORGANIC

MOTIVATION	SPLIT (%)	100% CERTIFIED (%)
VALUES-BASED		
Concerns about environment[1]	75.4	90.1
Potential enhancement of farm sustainability[2]	75.0	91.0
Fits my and/or family's values[3]	74.6	95.0
Concerns about human health[4]	66.2	89.5
MARKET/PROFIT		
Potential increase in profit	65.7	67.9
Access the expanding market for organics	60.6	59.7
Specific market opportunity or contract from a buyer	41.9	34.2

[1]p=.004; [2]p=.002; [3]p<.001; [4]p<.001

OBSTACLES

Where there are some differences in demographics and significant differences in motivations between Split farmers and 100% Certified Organic farmers, there are fewer but still notable differences regarding obstacles to transition.

The two farmer categories both identified weed management as the single major obstacle. What stands out is the number of minor obstacles identified by Split farmers. Split farmers rated 12 obstacles as minor compared to eight for 100% Organic farmers. Four obstacles identified as minor by Split farmers were identified as not an obstacle by 100% Certified farmers: access to knowledgeable technical expertise, cost of labor, reduced yields (a significant difference), and obtaining organic price information. ■

TABLE 14. OBSTACLES: SPLIT V. 100% CERTIFIED ORGANIC

OBSTACLES	SPLIT (%)			100% CERTIFIED (%)		
	MAJOR	MINOR	NOT AN OBSTACLE	MAJOR	MINOR	NOT AN OBSTACLE
MAJOR OBSTACLE						
Weed management	57.6	36.4	6.1	54.3	28.4	17.3
MINOR OBSTACLE						
Cost of organic certification	20.3	53.6	26.1	19.5	43.3	37.2
Availability of organic inputs (seed, fertilizer, etc.)	10.8	52.3	36.9	18.1	45.6	36.3
Recordkeeping requirements of organic certification	24.2	51.5	24.2	30.6	48.1	21.3
Learning process	16.4	50.7	32.8	18.9	42.8	38.4
Pest or disease control	29.9	46.3	23.9	28.9	41.5	29.6
Managing soil fertility	21.2	45.5	33.3	25.0	43.8	31.3
Cost of organic inputs	26.2	43.1	30.8	29.4	46.6	23.9
Access to knowledgeable technical expertise on organic production	21.5	43.1	35.4	19.3	37.9	42.9
Cost of labor	28.6	42.9	25.0	32.0	27.5	40.5
Obtaining organic price premiums	31.8	42.4	25.8	28.3	35.8	35.8
Reduced yields[1]	24.6	42.6	32.8	17.6	31.0	51.4
Obtaining organic price information	24.2	39.4	36.4	24.2	37.3	38.5
NO CLEAR TREND						
Obtaining adequate prices during transition	33.3	33.3	33.3	24.6	32.6	42.8
Availability of organic processing facilities	32.1	34.0	34.0	38.9	25.7	35.4
Availability of labor	28.3	35.0	36.7	26.5	43.8	31.3
NOT AN OBSTACLE						
Planning crop rotations	3.3	47.5	49.2	11.0	34.4	54.5
Finding buyers/markets for my organic product	18.2	36.4	45.5	16.0	29.0	54.9

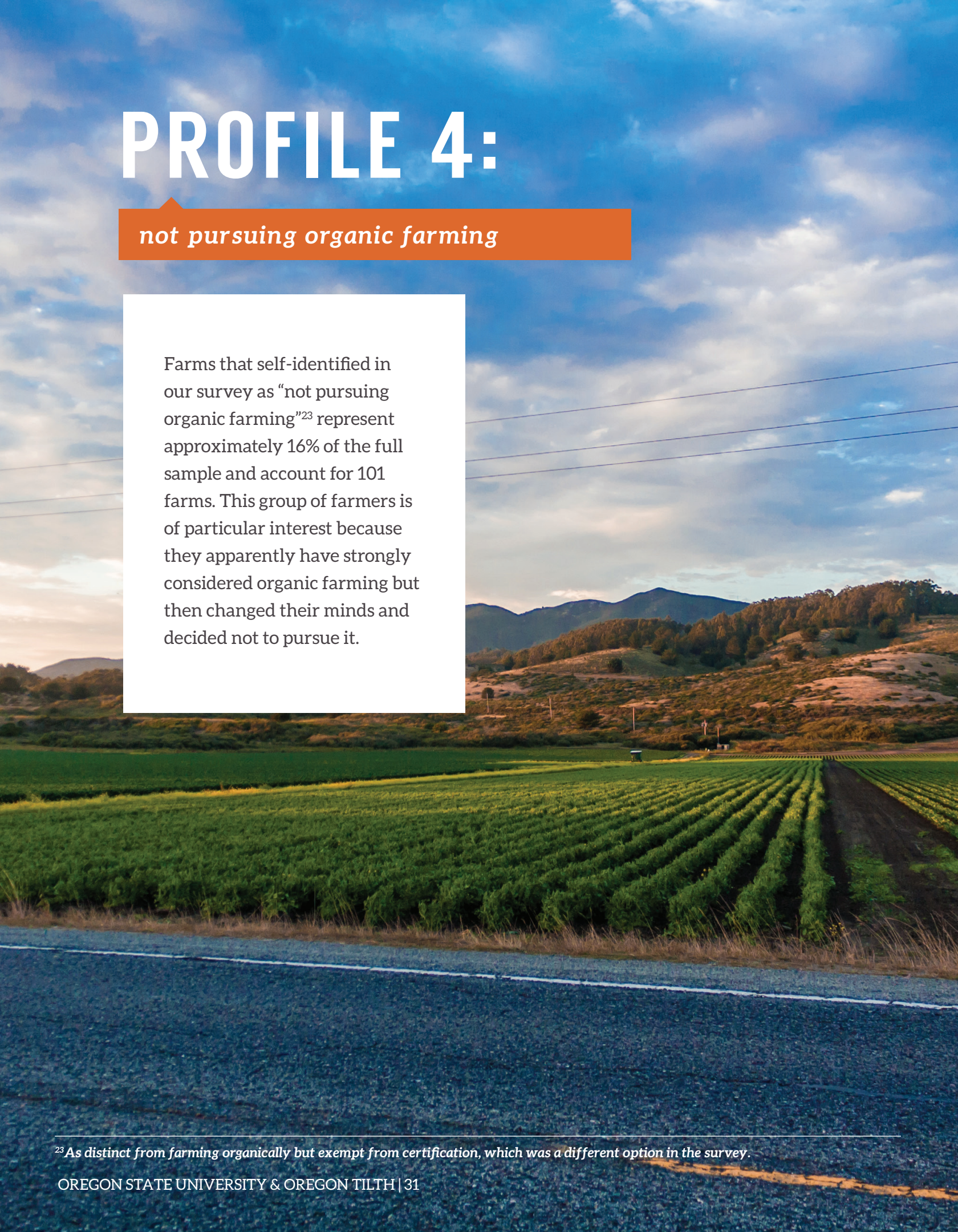
[1]p=.051 (Note: this is slightly above alpha level of .05)

MAJOR MINOR NOT AN OBSTACLE NO CLEAR TREND

PROFILE 4:

not pursuing organic farming

Farms that self-identified in our survey as "not pursuing organic farming"[23] represent approximately 16% of the full sample and account for 101 farms. This group of farmers is of particular interest because they apparently have strongly considered organic farming but then changed their minds and decided not to pursue it.



[23] As distinct from farming organically but exempt from certification, which was a different option in the survey.

The responses of the "Not Pursuing" group therefore provide an important perspective regarding how to increase the number of farmers who successfully transition to organic farming and certification: why did they start, why did they stop, and what resources and support might have helped? After describing this group, we contrast it with 100% Certified Organic farmers, exploring differences and similarities between farmers who have decided not to pursue organic farming and those who are now practicing it.

DEMOGRAPHICS

These are largely experienced farmers: more than half have more than 10 years of experience and nearly a third have more than 20 years. This group tends to be older than other farmers in the study: only 14% are under 45 years old, and more than 60% are 56 to over 75 years old.

TABLE 15. DEMOGRAPHICS: "NOT PURSUING" FARMS

CATEGORY		PERCENT
EXPERIENCE	0 to less than 5 years	18.8
	5 to less than 10 years	29.7
	10 to less than 20 years	21.8
	20 years or more	29.7
AGE	18 to less than 35 years	6.1
	36 to less than 45 years	8.2
	46 to less than 55 years	24.5
	56 to less than 65 years	39.8
	66 to less than 75 + years	21.4
FARM SIZE	0 to 25 acres	61.4
	26 to 100 acres	22.8
	101 to 500 acres	12.9
	501 to 1,000 acres	3.0
CROPS[24]	Vegetables	51.6
	Fruits/Nuts	14.5
	Grain/Legumes	6.5
	Livestock	25.8
	Dairy	1.6

[24] *Of 101 responses to this question, 29 farms indicated more than one crop; 10 indicated "other."*

Compared with 100% Certified Organic farms, these farms are much smaller: 61.4% are less than 25 acres, and only 15% are more than 100 acres. In terms of crop type, the most common is vegetables (51.6%), but compared with 100% Certified, a far higher proportion (25%) are livestock farms, and twice as many are fruit/nut farms.

MOTIVATIONS

Because this group of farmers has decided not to pursue organic farming, we expected significant differences from 100% Certified Organic farmers, and that is what we found. Like other farmers in this study, Not Pursuing farmers rank values-based motivations to transition to organic certification higher than market and profit motivations. However, the group is significantly different from 100% Certified Organic farmers in terms of the percentage of farmers motivated by each factor.

Not Pursuing farmers were significantly less motivated than 100% Certified Organic farmers by five of the seven factors: the four values-based motivations and a potential increase in profit. Compared with the full sample, Not Pursuing farmers were less motivated by all the factors.

TABLE 16. MOTIVATIONS: "NOT PURSUING" V. 100% CERTIFIED ORGANIC

MOTIVATION	NOT PURSUING (%)	100% CERTIFIED (%)
VALUES-BASED		
Fits my and/or my family's values[1]	87.5	95.0
Potential enhancement of farm sustainability[2]	78.4	91.0
Concerns about human health[3]	78.4	89.5
Concerns about environment[4]	72.6	90.1
MARKET/PROFIT		
Access the expanding market for organics	52.0	59.7
Potential increase in profit[5]	51.6	67.9
Specific market opportunity or contract from a buyer	27.5	34.2

[1]p=.030; [2]p=.005; [3]p=.014; [4]p=.001; [5]p=.009

OBSTACLES

The reasons this group of farmers decided not to pursue organic farming become clearer when we examine obstacles to transitioning to organic certification. Of 18 potential obstacles, eight were identified by Not Pursuing farmers as major obstacles. In contrast, 100% Certified Organic farmers identified only one major obstacle.

TABLE 17. OBSTACLES: NOT PURSUING V. 100% ORGANIC

OBSTACLES	NOT PURSUING (%)			100% CERTIFIED (%)		
	MAJOR	MINOR	NOT AN OBSTACLE	MAJOR	MINOR	NOT AN OBSTACLE
MAJOR OBSTACLE						
Weed management	62.8	18.1	19.1	54.3	28.4	17.3
Cost of organic certification[1]	55.0	28.0	17.0	19.5	43.3	37.2
Cost of labor[2]	51.3	23.8	25.0	32.0	27.5	40.5
Recordkeeping requirements of organic certification[3]	51.1	40.9	8.0	30.6	48.1	21.3
Pest or disease control[4]	49.5	28.0	22.6	28.9	41.5	29.6
Cost of organic inputs[5]	46.7	31.5	21.7	29.4	46.6	23.9
Availability of organic processing facilities	46.6	23.3	30.1	38.9	25.7	35.4
Obtaining organic price premiums[6]	44.7	30.6	24.7	28.3	35.8	35.8
MINOR OBSTACLE						
Learning process	11.0	54.9	34.1	18.9	42.8	38.4
Managing soil fertility	25.8	44.1	30.1	25.0	43.8	31.3
Availablity of organic inputs (seed, fertilizer, etc)	26.7	44.1	32.2	18.1	45.6	36.3
NO CLEAR TREND						
Availability of labor	37.9	32.2	29.9	26.5	43.8	31.3
Obtaining adequate prices during transition	32.5	28.8	38.8	24.6	32.6	42.8
Obtaining organic price information	27.8	35.6	36.7	24.2	37.3	38.5
NOT AN OBSTACLE						
Planning crop rotations	8.9	37.8	53.3	11.0	34.4	54.5
Reduced yields	25.9	23.5	50.6	17.6	31.0	51.4
Access to knowledgeable technical expertise	21.9	36.5	41.7	19.3	37.9	42.9
Finding buyers/markets for my organic products	33.0	26.1	40.9	16.0	29.0	54.9

[1]p<.001; [2]p=.012; [3]p=.001; [4]p=.005; [5]p=.016; [6]p=.030

MAJOR MINOR NOT AN OBSTACLE NO CLEAR TREND

The top major obstacles for Not Pursuing farmers include: weed management, the cost of organic certification, cost of labor, recordkeeping requirements of organic certification, pest or disease control, the cost of organic inputs, availability of organic processing facilities, and obtaining organic price premiums—a very long list of obstacles.

The two groups differ significantly on the importance of six obstacles, which Not Pursuing farms identified as major and 100% Certified Organic farms identified as minor, no clear trend, or not an obstacle:

- cost of organic certification
- cost of labor
- cost of organic inputs
- recordkeeping requirements of organic certification
- pest or disease control
- obtaining organic price premiums

In addition, while there was no significant difference between the two groups regarding weed management as a major obstacle – matching general agreement among all farmers in the study – the greater magnitude for the Not Pursuing farmers is notable. While 52.9% of the full sample and 54.3% of 100% Certified farmers identified weed management as a major obstacle, it was major for 63% of Not Pursuing farmers. ■

RESOURCE AND SUPPORT RANKINGS ACROSS ALL FOUR GROUPS

Resource rankings for all four categories of farmers are shown in Table 18. Respondents were asked to choose their top five, and those are highlighted for each category (1 = most important).

TABLE 18. RESOURCE RANKINGS BY FARMING SYSTEM

RESOURCE	100% CERTIFIED	TRANS.	SPLIT	NOT PURSUING
Information on organic pest, disease, and weed management	1	1	1	1
Information on soil health management for organic farms	2	2	3	2
Information on effective organic crop rotations	3	7	5	5
Information on organic markets	4	3	2	3
Information on organic crop varieties	5	8	6	6
Market development for organic products	6	4	4	4
Organic and/or transition crop enterprise budget templates	7	9	10	9
Financial planning tools for transitioning to organic	8	5	8	8
Advance contracts from buyers during transition	9	10	7	7
Certified transition label	10	6	9	10

100% Certified Organic farmers stress production-related information in the top five ranking of resources to support transition to organic certification. One market-related resource—information on organic markets—is in their top five.

Transitioning farmers stress both production and market or financial resources in their top five. Like 100% Certified Organic farmers, Transitioning farmers ranked information on organic pest, disease, and weed management and information on soil health management at numbers one and two. Unlike 100% Certified Organic farmers, Transitioning farmers ranked information on organic markets, market development for organic products, and financial planning tools for transition as third, fourth, and fifth. Noteworthy is that Transitioning farmers ranked a certified transition label sixth, where other farmers ranked it ninth and tenth.

As with 100% Certified Organic farmers (and the full sample), Split farmers stress production-related information in three of their top five resources. However, Split farmers ranked market-related resources higher in their top five than did 100% Certified Organic farmers: information on organic markets ranked second; market development for organic products ranked fourth.

While farmers Not Pursuing organic farming have shown significant differences regarding motivations and obstacles, they are quite similar to 100% Certified Organic farmers (and the full sample) regarding resources.

Worth mention are several instances where farmers ranked a resource to assist transition as highly beneficial and yet did not rank a related obstacle as a notable barrier. For example, crop rotations, technical expertise, soil management, and information on organic markets are ranked low as obstacles to transition, and yet they rank highly as valuable resources. In some instances, the wording is slightly different: for example, the obstacle related to crop rotations is about planning crop rotations, while the resource related to crop rotations is about rotations useful in a farmer's specific region. Otherwise, there is not a clear explanation.

SUPPORT

Across the four groups, respondents preferred high contact approaches for accessing support during transition. Transitioning, Split, and Not Pursuing farmers mildly preferred online courses versus books and printed materials, the opposite of 100% Certified Organic farmers.

TABLE 19. SUPPORT RANKINGS BY FARMING SYSTEM

SUPPORT	100% CERTIFIED	TRANS.	SPLIT	NOT PURSUING
Mentoring from experienced organic farmers	1*	1	1	1
One-on-one technical assistance during transition	1*	3	3	2
In person workshops or short courses	3	2	2	3
Books or other printed materials	4	5	5	5
Online courses or webinars	5	4	4	4

*Tied

DISCUSSION

We set out to contribute to the national discussion about the reasons U.S. farmers do and do not transition to organic farming and certification.

- What motivates them?
- What obstacles do they face?
- What resources and support are most helpful during transition?

We had the opportunity to survey the different types of farmers who are the key to understanding how to increase the number of farms and acres managed organically:

- Farmers who have successfully been through the process of transition and are 100% certified organic.
- Farmers who are currently in the midst of transitioning to organic certification.
- Farmers with split certified organic and non-organic operations.
- Farmers who have decided not to pursue organic farming.

This report is useful for organizations, agencies, businesses, and others working with farmers and communities, and on policy development regarding increasing domestic production of organic products. Segmenting the market is always a useful approach to making progress with different audiences. Our farmer profiles—market segments—provide this opportunity. To that end, the results of this study may assist in tailoring and targeting educational programs and research to benefit 100% certified, transitioning, and split operation farmers and to minimize the number of farmers who begin the transition and subsequently decide not to pursue organic farming. We suggest that those interested and invested in organic transition look closely at the information in this report and identify what they can do to provide training, solve obstacles, or promote policy to support transition and retain certified organic farmers.

WHAT DID WE LEARN?

The farms and farmers represented in this study cover a wide range of farm sizes, crop types, farming experience, age, and approach to organic farming. The sample is dominated by smaller scale farms (60.5%) that primarily grow vegetables (54.7%), operated by farmers with less than 10 years' experience (55.5%) who are transitioning their farms to organic certification (31.2%). The dominance of this "typical" respondent influences many of our results. In addition, the farmers were participants in the NRCS EQIP-OI/Transition program, which limits the generalizability of the results.[25]

Our study did not yield many surprises regarding what motivates farmers to transition to organic, what resources they wish they had, and what kind of support they would like. The results and variations we did find are useful to those working with farmers in the different groups profiled. The more compelling differences emerged regarding obstacles.

MOTIVATIONS

We saw some clear differences in motivations among the farmer categories: 100% Certified Organic farmers are highly motivated by the values-based foundations of organic farming. Transitioning farmers are similar to 100% Certified farmers in terms of values and significantly more motivated by access to the expanding market of organics. Split farmers are significantly less motivated by values than 100% Certified farmers but do not differ regarding market and profit motivations. Farmers not pursuing organic farming were generally less motivated than other farmers for most factors. Individuals and organizations working with farmers within these categories should take these differences in attitude into consideration as they plan their research, outreach, or policy activities.

OBSTACLES

When we return to the challenge at hand – that the number of farms and acres transitioning to organic certification is fairly flat, relative to demand – we find our most compelling findings in the obstacles.

[25] *Because we do not have access to demographic data about EQIP-OI/Transition participants, we cannot know whether our group of respondents is more or less representative of that larger population, which itself overlaps with but is not the same as the certified organic farmers typically surveyed by USDA-NASS and OFRF.*

We offered farmers 18 obstacles to rate as Major, Minor, or Not an obstacle. The obstacles can be sorted into spheres of influence that are internal or external to the farm: farm level, local/regional level, and the national/international levels. These include production (farm level) obstacles, infrastructure obstacles, marketplace obstacles, and policy (administrative) obstacles.

Farm level obstacles are internal and focus on farm production and farmer learning:

1. **Weed management**
2. **Pest or disease control**
3. **Managing soil fertility**
4. **Reduced yields**
5. **Planning crop rotations**
6. **Learning process**

Local and regional infrastructure obstacles are external to the farm (unless the farm creates needed infrastructure internally) but directly support the farm's ability to produce crops or products:

1. **Availability of organic inputs**
2. **Cost of organic inputs**
3. **Availability of labor**
4. **Cost of labor**
5. **Availability of organic processing facilities**
6. **Availability of technical expertise**

Marketplace obstacles are external to the farm and may be local, national or international:

1. **Finding buyers for organic products**
2. **Obtaining organic price premiums**
3. **Obtaining adequate prices during transition**
4. **Obtaining organic price information**

Administrative/Policy obstacles on our list primarily relate to the requirements of the USDA National Organic Program in terms of cost and complexity:

1. **Cost of organic certification**
2. **Recordkeeping requirements of organic certification**

With these groupings in mind, we took a fresh look at the obstacles for this synthesis, compiling all those that each farmer category rated as major or minor. Fifteen of the 18 obstacles were rated by at least one category of farmer as major or minor. Table 20 summarizes all 18 obstacles by sphere of influence for the full sample and the four farmer categories of farming system. Obstacles highlighted in orange represent major obstacles, yellow represent minor obstacles, green represents not an obstacle, and grey cells indicate no clear trend. For this last category—no clear trend—it is important to consider these obstacles seriously even though there is no consensus. They are often major or minor obstacles for an important segment of farmers.

TABLE 20. OBSTACLES BY SPHERE OF INFLUENCE AND FARMING SYSTEM

	FULL SAMPLE	100% CERTIFIED	TRANS.	SPLIT	NOT PURSUING
FARM LEVEL					
Weed management	X	X	X	X	X
Pest or disease control		X		X	X
Learning process	X	X	X	X	X
Managing soil fertility	X	X	X	X	X
Reduced yields				X	
Planning crop rotations					
LOCAL & REGIONAL INFRASTRUCTURE					
Cost of organic inputs	X	X	X	X	X
Availability of organic inputs	X	X		X	X
Availability of labor		X			
Cost of labor				X	X
Access to technical expertise				X	
Availability of organic processing facilities					X
MARKETPLACE					
Obtaining organic price premiums	X		X	X	X
Obtaining adequate prices during transition			X		
Obtaining organic price information	X		X	X	
Finding buyers for organic products					
ADMINISTRATIVE/POLICY					
Cost of organic certification	X	X	X	X	X
Recordkeeping requirements of organic certification	X	X	X	X	X
TOTALS	9	9	9	13	11
MAJOR V. MINOR	2 v. 7	1 v. 8	3 v. 6	1 v. 12	8 v. 3

MAJOR MINOR NOT AN OBSTACLE NO CLEAR TREND

As shown in the table, the four farmer categories agree on five of the obstacles: one as major, two as minor, and two as not an obstacle. They diverge on perceptions of the other obstacles and on the number they identify as major or minor. This number is highest for Split farmers (1 major and 12 minor) and Not Pursuing farmers (8 major and 3 minor).

The table also reveals surprises regarding obstacles that are generally considered significant barriers to organic but are identified here by nearly all farmers as not a problem: reduced yields (an obstacle, and a minor one at that, only for Split farmers) and finding buyers for organic products.

When we consider the spheres of influence, we can see that for all four groups, half or more of the obstacles are beyond the farm and therefore beyond the farmer's direct influence. This demonstrates the need for research, education, and action at multiple levels, not only farm level research and education but also developing regional infrastructure or influencing state or national policy.

RESOURCES AND SUPPORT

In general, there is agreement across farmer categories regarding the top five resources beneficial to organic transition (Table 18). There is close consensus on the "top 5" production and market related resources (organic pest, disease, and weed management; soil health management; information on organic markets). Transitioning, Split, and Not Pursuing farmers ranked market development for organic products in their top five.

Of special interest given their status, Transitioning farmers rank financial planning tools for transitioning to organic in their top 5 and a certified transition label at number 6; both resources are very low priorities for the other farmer categories.

All farmers in the study preferred high contact approaches for support during organic transition: mentoring from experienced organic farmers, one-on-one technical assistance, and in-person workshops (Table 19).

It would not be accurate, however, to take from this the idea that only high contact support will work. To simplify our questionnaire, we offered farmers five typical methods of receiving information important to organic transition. We did not contextualize these methods of support in terms of expense, distance, and other delivery constraints.

Based on sales of books related to organic farming and the popularity of organic farming web and webinar services such as eOrganic, we believe these forms of education and problem-solving will continue to be important tools for farmers transitioning to organic certification. Hybrid forms of support that combine in-person and online approaches are also valuable. ■

RECOMMENDATIONS & CONCLUSION:

supporting farmers who choose organic

- Adopt a values-based approach to appeal to a wider audience of farmers
- Focus outreach to specific groups for greater success
- Provide individualized, in-person support
- Keep an eye on the special needs of Transitioning farmers
- Develop more effective weed (pest) management strategies
- Study the relationship between yield and successful transition
- Develop more regional handling infrastructure
- Evaluate transitional certification's potential as an "on-ramp" program
- Support certification cost-share assistance

RECOMMENDATIONS

Guided by the survey findings, we recommend the following specific strategies to support the success of farmers who choose organic.

ADOPT A VALUES-BASED APPROACH TO APPEAL TO A WIDER AUDIENCE OF FARMERS.

The farmer/farm family's values were the most frequently cited motivation at over 90%, followed closely by concerns about the environment, enhancement of farm sustainability, and concerns about human health. Farmers not pursuing organic farming were generally less motivated than other farmers for most factors. Values-based motivations may position farmers for greater odds of success due to a deeper commitment to organic management systems.

Certified organic farmland makes up less than 1% of the US farmland base. One could assume that many US farmers are not currently motivated by the ideals, principles, and practices of organic certification – or that these ideals, principles, and practices have not been effectively presented to most US farmers. The survey indicates that the farmers who pursue transition are generally motivated to do so through an alignment of their personal values with benefits they ascribe to organic production. Reaching the majority of farmers in this country requires that the values intrinsic to the organic sector are communicated broadly and without boundaries. While the opportunities that come with certification are numerous and span social, environmental, and market factors, there is a common land ethic that transcends the organic sector and speaks to those who depend upon natural resources for their livelihood.

We recommend working with farmers to evaluate the opportunities and choice of transitioning to organic agriculture by engaging in values-based dialogue, informed by an understanding of and sensitivity to local context and concerns.

FOCUS OUTREACH TO SPECIFIC GROUPS FOR GREATER SUCCESS

The demographics of our survey respondents help identify two types of farmers that may be of special interest regarding transition to organic farming.

Split farm operations are a potentially significant source of additional organic acreage.

They have successfully transitioned some of the operation to organic, and have additional non-organic acreage under their management.

They may already be in the process of, or interested in, incrementally transitioning more acreage. The high level of farming experience among split farmers is another important factor. More experience could mean a higher chance of the farm's continued success and stability. Yet it is important to keep in mind that this group identified 13 obstacles to transition, more than any other group.

In addition, Split farmers are older than other farmer categories profiled in this study, with more than 37% in the 56 to 65 year range. Given their proximity to retirement and farm succession, we also recommend investing in support strategies targeting new and beginning farmers and ranchers (BFRs).

BFRs account for more than 55% of all survey respondents. Additionally, two-thirds of the transitioning farmers category are BFRs. While BFRs and experienced farmers both ranked values-based motivations higher than market or profit motivations, a higher proportion of BFRs were motivated by their own or their family's values as well as concern about human health and the environment. As previously discussed, these values-based motivations position BFRs for greater odds of success due to a deeper commitment level.

KEEP AN EYE ON THE SPECIAL NEEDS OF TRANSITIONING FARMERS

Transitioning farmers in our study were different from other farmers in important ways that need to be considered. These farmers were significantly more motivated than the other groups by access to the expanding organic market. Unlike the others, they identify three marketplace obstacles: price premiums, adequate prices during transition, and obtaining organic price information. Further, they were the only group – other than farmers no longer pursuing organic farming – that identified recordkeeping requirements as a major obstacle. Finally, while production challenges are often front and center during the transition to organic systems, financial planning is necessary to weather those bumps in the road: transitioning farmers in our study ranked financial planning tools for transition in their top 5 resources.

PROVIDE INDIVIDUALIZED, IN-PERSON SUPPORT

All respondents prefer high-contact approaches of support during transition. The top two methods of support are mentoring from experienced organic farmers and one-on-one technical assistance. Mentoring was the top

choice for BFRs, further emphasizing mentorship programs as a high-demand transition support mechanism.

The stated preference for one-on-one technical assistance demonstrates an opportunity to provide farmer education and transition support services through focused partnerships with existing farm and land-based agencies. Land grant universities, non-profits, local conservation districts, as well as NRCS planners and Technical Service Providers have the potential to provide individualized technical support. The private sector, in particular companies seeking to expand their organic product lines, can also provide field-based technical assistance as a domestic supply chain development strategy.

In addition, this survey confirms that many farmers perceive NOP recordkeeping requirements as an obstacle to certification. For both Not Pursuing and Transitioning respondents, the overwhelming majority (92% and 86% respectively) perceives recordkeeping as an obstacle - making it the most cited obstacle for both of these farmer categories. As farmers obtain certification (Split and 100% Certified), recordkeeping remains an obstacle, though minor in comparison. This difference implies that farmers who have not gone through the certification process perceive the associated recordkeeping as more difficult than it might actually be. Mentoring and one-on-one assistance can also help farmers over this hurdle. In addition, providing farmers with effective record-keeping support requires a customized approach that is adapted to their unique social, environmental, and market conditions as well as the farmer's personality.

DEVELOP MORE EFFECTIVE WEED (PEST) MANAGEMENT STRATEGIES

While access to knowledgeable technical expertise in organic production is not lacking, a significant gap exists wherein all farmer categories report weed management as a major obstacle and rank information on weed, pest, and disease as the primary resource needed during transition.

There is a need to better capture and understand why this gap exists. Are the existing tools and strategies too costly, too complex, and/or not appropriate to scale? Are farmers reluctant to invest in equipment or unwilling to dedicate the space and time to holistic weed and pest management strategies? Unlike non-organic farming, organic systems often depend on sustained, multi-season, multi-year approaches through which positive results are accrued and compounded through time.

In this sense, effective outreach and support on weed and pest management in organic systems should include long-term trials and on-farm demonstration. The value of these is enhanced through participatory projects in which farmers are engaged in both design and implementation.

STUDY THE RELATIONSHIP BETWEEN YIELD AND SUCCESSFUL TRANSITION

When discussing barriers to organic transition, farmers and agricultural professionals commonly cite concerns involving reduced yield. However, our survey respondents consistently ranked this obstacle far below many others.

Reduced yield was not an obstacle for three of the four profiled farmer categories. One category (Split farms) ranked it as a minor obstacle. Which specific cropping systems or practices (i.e., nutrient management, crop rotation plans) can produce comparable yields between organic and non-organic management systems? Do organic price premiums offset reduced yields by supporting the farm's economic viability? We recommend further research to better understand why reduced yield might not be as significant of a concern as it is typically perceived to be.

DEVELOP MORE REGIONAL HANDLING INFRASTRUCTURE

More than 63% of all respondents identified availability of organic processing facilities as an obstacle to transition, with more than 38% identifying it as a major obstacle. Proximity and access to all the necessary infrastructure links in the organic supply chain can make the difference between profitability and economic default. This emphasizes the need for increased investment in regional infrastructure for processing, storage, and distribution of organic crops, livestock products, and value-added goods.

EVALUATE TRANSITIONAL CERTIFICATION'S POTENTIAL AS AN "ON-RAMP" PROGRAM

Among all respondents, having a Certified Transitional label received relatively low rankings as a beneficial resource during transition. Transitioning farmers ranked a certified transitional label sixth (out of ten), where other farmers ranked it ninth and tenth.

When the survey was administered, only a small number of certifiers offered a transitional certification program. However, this service has recently gained more exposure and awareness. USDA has approved a new transitional certification program to foster organic growth. Using standards developed by the Organic Trade Association, the National Certified Transitional Program will provide oversight to approved Accredited Organic Certifying Agents offering transitional certification to farmers. However, it is worth noting the program did not include labeling guidelines. The successful adoption of such a program will depend on buyer demand and likely cannot be driven by farmers or end consumers.

While our survey results signal minimal value in a certified transitional label in the marketplace, a transitional certification program could offer valuable business-to-business functions and strengthen buyer-seller relationships. For example, it could provide additional assurance to buyers wanting to secure future organic supply from farmers in transition. Transitional certification may also support price premiums for certified transitional crops. It could also help farmers prepare for organic certification requirements by evaluating management practices, inputs, and recordkeeping during the transition period.

When evaluating transitional certification's potential benefits, efforts should be made to identify and minimize unintended consequences. For example, concerns have been raised about certified transitional products competing for market share by undercutting the price of certified organic products. Others have expressed concerns that a certified transitional label would add to consumer confusion among many other certified attribute claims already found on food products.

SUPPORT CERTIFICATION COST-SHARE ASSISTANCE

Survey results clearly demonstrate the importance of certification cost-share programs. Over 80% of all respondents identified the cost of certification as an obstacle to transition, with more than 43% identifying this as a major obstacle. With the majority of respondents being smaller scale (over 60% farm less than 25 acres), the USDA NOP certification cost-share program is a key to smaller farms' ability to access and afford organic certification. The USDA's recent announcement to expand the scope of certification cost-share assistance to include transitional certification and state organic program fees will further help to overcome this commonly cited obstacle. ■

CONCLUSION

Our results make it clear that there is plenty of work to do by a wide variety of organizations and agencies working in the organic sector that have specializations in crop research, farmer education, infrastructure development, market development, and policy development. Farmers in our study echo long-standing concerns about costs, recordkeeping, on-farm production challenges, infrastructure, and profitable markets. This report provides an analysis and perspective valuable in formulating research, outreach and policy to address those concerns.

This assessment is useful for gaining a broad view of motivations and obstacles that farmers experience while transitioning to organic farming and certification but should not be used to set priorities everywhere. Some obstacles that were rated lower in this national survey may be larger issues when examined by region or locality. This also pertains to preferred resources and support for transition.

Another important consideration is that this survey only included farmers. A holistic strategy to support transitioning farmers should consider and engage other actors within the supply chain from field to fork. Successful organic transition is not only about production. It involves other sectors including storage, manufacturing, distribution and more.

We recommend that organizations that have an interest in working with farmers on organic transition examine the results presented in this report and elsewhere and formulate their own customized strategies.

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REFERENCES CITED

Cranfield, J., Henson, S., & Holiday, J. (2010). The motives, benefits, and problems of conversion to organic production. Agriculture and Human Values 27: 291-306.

DiGiacomo, G. and R. P. King. (2015). Making the Transition to Organic: Ten Farm Profiles. Sustainable Agriculture Research and Education Program (SARE). Retrieved from the University of Minnesota Digital Conservancy, http://hdl.handle.net/11299/181352.

Dillman, D. and J. Smyth. (2014). Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method (4th Ed.). Hoboken, NJ: Wiley.

Greene, C. 2013. Growth patterns in the U.S. organic industry. USDA Economic Research Service: Amber Waves. Retrieved from: http://www.ers.usda.gov/amber-waves/2013/october/growth-patterns-in-the-us-organicindustry/

Jerkins, D. and J. Ory. (2016). 2016 National Organic Research Agenda. Santa Cruz, CA: Organic Farming Research Foundation. Available at: http://ofrf.org/sites/ofrf.org/files/staff/NORA_2016_final9_28.pdf

Johnston, S. (2010). Assessing farmer interest in transition to organic production and barriers to expansion of organic production in New York State. Report by New York State Department of Agriculture and Markets. Retrieved from http://www.agriculture.ny.gov/ap/organic/docs/Abstract_Assessing_Farmer_Barriers.pdf.

Kirkpatrick, J. (2013). "Retired Farmer - An Elusive Concept". Choices. Quarter 2. Available online: http://www.choicesmagazine.org/choices-magazine/theme-articles/transitions-in-agriculture/retired-farmer--an-elusive-concept

Lau, M., R. Hanagriff, D. Constance, M. York, B. VanDelist, and L. M. Higgins. (2010). Discerning Differences among Producer Groups and Organic Adoption Barriers in Texas. Journal of Food Distribution Research 40(2): 124-164.

Lloyd, D. (2016). Farmer perspectives on the transition to organic agriculture: An Oregon study of farmer motivations and barriers. Oregon State University: Master's Thesis. Available at: http://hdl.handle.net/1957/60003.

McBride, W. and C. Greene. (2015.) Despite profit potential, organic field crop acreage remains USDA Economic Research Service: Amber Waves. Retrieved from: http://www.ers.usda.gov/amberwaves/2015/november/despite-profit-potential-organic-field-crop-acreage-remains-low/

Murray, T. and N. Enelow. (2016.) Investing in Organic Production: Economics of Transition (Webinar). Oregon Tilth, Sept. 7. Available at: https://tilth.org/resources/investing-organic-production-economics-transition/.

Organic Trade Association (OTA). (2016). U.S. organic sales post new record of $43.3 billion in 2015. Available at: https://www.ota.com/news/press-releases/19031#sthash.7UCqaHEt.dpuf (accessed 11/21/16).

Reganold, J. P., and J. M. Wachter. (2016). Organic agriculture in the twenty-first century. Nature Plants 2: 15221. doi:10.1038/nplants.2015.221.

Kniss, A. R., S. D. Savage, and R. Jabbour. (2016). Commercial Crop Yields Reveal Strengths and Weaknesses for Organic Agriculture in the United States. PLoS ONE 11(8): e0161673. doi:10.1371/journal.pone.0161673

Stephenson, G., L. Gwin, A. Garrett, and M. Powell. 2012. Enhancing Organic Agriculture in Oregon: Research, Education, and Policy. OSU Extension Service, Special Report #EM9050. Corvallis, OR: Oregon State University.

Stofferahn, C. W. (2009). Personal, Farm and Value Orientations in Conversion to Organic Farming. Journal of Sustainable Agriculture 33(8): 862-884.

Strochlic, R. and L. Sierra. (2007). Conventional, mixed and "deregistered" organic farmers: entry barriers and reasons for exiting organic production in California. Davis, CA: California Institute for Rural Studies.

USDA Natural Resource Conservation Service (NRCS). (n.d.) "EQIP Organic Initiative." Website: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/?cid=nrcs143_008224 (accessed 11/21/16).

USDA National Agricultural Statistics Survey (NASS). (n.d.). 2014 and 2015 Organic Certifier Data. Available at: https://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Organic_Production/Organic_Certifiers/2016/USDA_Accredited_Certifying_Agent_Certified_Organic_Data_2014_2015.pdf.

USDA-NASS. (2012). 2012 Census Highlights. Available at: https://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Beginning_Farmers/

USDA-NASS. (2014). Census of Agriculture: 2014 Organic Survey. Available at: https://www.agcensus.usda.gov/Publications/2012/Online_Resources/Organics/

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