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Barriers to Transitioning to Organic Grain Production in the Mid-Atlantic USA

Abstract

Real and perceived barriers encompassing many aspects of farming can prevent farmers from transitioning from conventional to organic grain production. In Maryland, a survey assessed 22 potential issues that could serve as barriers preventing farmers from transitioning to organic grain production. Sixty-five responses were collected. Each of the 22 issues listed in the survey was perceived as being a moderate or extreme barrier by at least 32% of respondents. The most extreme barriers were related to marketing or farming equipment. Barriers that were common to conventional Maryland farmers, such as deer pressure and nutrient regulations, were also ranked highly as barriers preventing farmers from transitioning to organic production. Social barriers, such as "not wanting to be associated with organic," ranked much lower in importance than barriers related to operations and markets. Asked "If the above mentioned barriers were addressed, would you consider transitioning part or all of your farm to organic production?," 23% of respondents answered "yes" and 42% "maybe." The survey indicated many farmers are unwilling or apprehensive to transition to growing organic grain due to multifaceted concerns. Marketing and farming equipment stood out as two major areas in which Extension could help. For example, extension programs could help farmers network with each other and potential buyers, or help establish equipmentsharing and buying/selling opportunities. Extension could also provide information and resources to help with topics such as regulations and record-keeping.

Introduction

Organic food sales in the United States continue to grow, surpassing 60 billion dollars in 2022, which accounted for 6% of total food sales in the United States (Willer et al., 2024). Worldwide, in 2022, there were 4.5 million organic producers, 93% of whom were based in Asia, Africa, and Europe. The 10-year growth in producers from 2012-2022 was 134.7% worldwide; however, this varied by region. The 10-year growth in producers was 303.5% for Asia, but only 45.2% for Northern America and -14.4% for Latin America. In 2022, the United States represented 43% of the global market for organic food, and 2.17 million tons of organic products were imported into the United States (Willer et al., 2024). Between 2016 and 2019, 14-46% of the total organic corn supply and 63-75% of the total organic soybean supply in the United States was imported (McConnell et al, 2021), highlighting a need for increased organic corn and soybean production in the United States.

Transitioning from conventional to certified organic agricultural production involves a three-year period during which farmers must manage their land using strictly organic practices that prohibit inputs not approved by the National Organic Standards Board (https://www.ams.usda.gov/rules-regulations/organic/nosb). From 2020 – 2024, we conducted a research project funded by U.S. Department of Agriculture National Institute of Food and Agriculture (USDA NIFA), project No. MD-ENST-03517, to compare four organic transition soil-crop management strategies along a continuum of soil disturbance, soil cover, and input costs. Four replicated, large-scale field experiments were performed, two on University of Maryland research farms and two on private farms. The effects of the organic transition strategies on crop yield, profitability, and environmental impacts were measured. At both the research and the commercial farms, transitioning to organic farming created challenges beyond yield and profit potential. In light of these experiences and discussions with farmers about concerns

with transitioning to organic production, it became clear that many types of issues can present real or perceived barriers that hinder adoption of organic methods.

Studies from various regions around the country have found similar barriers to growing organic products. A review by Reganold and Wachter (2016) concluded that the obstacles faced by farmers adopting organic agriculture include unfavorable policies, information and knowledge gaps, misperceptions and cultural biases held by both individuals and organizations, and economic challenges such as weak infrastructure. Access to markets, infrastructure such as resources for storage and distribution, loans, and insurance were established as barriers to organic adoption (Reganold and Wachter, 2016).

The presence and proximity of markets has been identified as a major barrier to organic agriculture production. A study that interviewed 17 organic or transitioning lowa grain farmers found that while 65% said the demand for organic grain had grown and there were more buyers and brokers, the location of the markets remained problematic. Sixtyfive percent of the farmers had to sell organic grain outside of their home state of Iowa to markets in Minnesota, Illinois, Wisconsin, Nebraska, Missouri, Oregon, Arkansas, Vermont, and New York. The lack of local organic markets resulted in higher transportation costs and reduced profits. The farmers also described problems selling corn, soybean, and other rotational crops, such as small grains and alfalfa, during the three-year transition period. They often sold transitional or rotational crops with no or low price-premiums compared to conventional crops (Han and Grudens-Schuck, 2022). A study performed in Texas divided surveyed conventional farmer respondents into those who expressed no interest versus those who expressed some level of interest in organic production. Of the 334 "somewhat interested" producers (who encompassed different production types), only 22% agreed that organic markets were reliable. Nineteen percent disagreed that "organic markets are reliable," while 59% were "not sure." Concerning market barriers, 75-85% of "somewhat interested" farmers were concerned with uncertainty in obtaining organic price premiums, lack of organic marketing networks, distance to available organic markets, unstable organic markets and/or prices, and finding reliable buyers and markets (Constance and Choi, 2010).

Concerning equipment, surveyed lowa organic and transitioning grain farmers stated that machinery of the right type and right size for organic grain operations was less available than conventional machinery (Han and Grudens-Schuck, 2022). Only 20% of the Texas "somewhat interested in organic" farmers felt they had the right equipment for organic production, while 25% did not, and 55% were not sure if they had the correct equipment (Constance and Choi, 2010). Much of the specialized machinery needed by organic grain farmers is for mechanical weed control in the absence of herbicide use.

Weed control is a major concern for organic production. A national survey found that certified organic farmers, transitioning to organic farmers, and farmers who began the process of transitioning but changed their mind all indicated that weed management was a major "obstacle to organic farming" (Stephenson et al., 2022). Seventy-six percent of interviewed Iowa organic and transitioning grain farmers cited weed control as a major problem (Han and Grudens-Schuck, 2022).

Several studies cited barriers to organic production related to education and access to information. These are particularly relevant, as Extension educators are positioned to assist farmers with these areas. Only 18% of the Texas "somewhat interested in organic" farmers felt the necessary informational support for organic farming was available, while 26% thought it was not available, and 56% were unsure. Only 11% said they understood the process of organic certification, while 38% did not understand. Surprisingly, over 80% of all surveyed farmers (including some organic farmers) were "not sure" or "disagreed" with the statement "I understand the process of organic certification." In terms of their needs, 92% of "somewhat interested" producers thought that local/regional organic market development would be somewhat or very useful (Constance and Choi, 2010). Interviewed Iowa organic and transitioning farmers also reported negative social experiences, including ostracism by conventional farmers. Both organic and conventional farmers were worried about harmful risks coming from their counterpart neighbors, e.g., organic farmers introducing weeds to conventional farms, and conventional farmers introducing pesticide or pollen drift to organic farms (Han and Grudens-Schuck, 2022).

In the current project, we conducted a survey of primarily Maryland farmers to gain insight into the perceived barriers preventing conventional grain farmers from transitioning fields to organic grain production. The survey questions were informed by informal conversations with organic and transitioning farmers, and survey questions asked about 22 different potential barriers related to markets and selling organic or transitional grain (5), farming equipment (4), soil management (3), pest control (3), the process of organic certification (3), farmers' perception of their current practices (2), and land tenure (2). The survey was intended to guide and develop future educational programs.

Methods

The survey "Barriers preventing transitioning to organic grain production" (see Appendix) was developed in 2022, and approved by the University of Maryland Institutional Review Board (IRB) in January 2023. It was distributed in a paper format at Extension educational programs geared toward grain growers, at tabling events, and via an electronic format on Extension email listservs from January 2023 to May 2024. The survey was distributed at the 2023 Lower Eastern Shore Agronomy Day to approximately 67 farmers, of whom approximately 50% responded. A response rate could not be calculated for the surveys picked up at tabling events or the surveys that were dispersed electronically. Completed surveys were entered into Qualtrics survey software that performed descriptive statistics on the data, including percentages, means, and counts. The survey included questions rating the importance of 22 different barriers. Farmers rated each barrier as either "not a barrier," "somewhat of a barrier," "a moderate barrier," or "an extreme barrier." The survey also asked respondents, "If the above-mentioned barriers were addressed, would you consider transitioning part or all of your farm to organic production?" The group of respondents that answered "yes" to this question were considered to be the "most likely to transition" respondents. The Kruskal-Wallis statistical test was used to compare the "most likely to transition" respondents to the other respondents. This test was chosen since the data is nonnormally distributed. A significance level of p < 0.1% was considered significant. Pearson correlations were run in SYSTAT (ver. 13) to determine if a group of farmers concerned about one kind of barrier were also concerned about another type of barrier.

Results

Characteristics of respondents

There were 65 usable responses collected from farmers from 11 counties in Maryland, plus one participant from Delaware and one from the District of Columbia. Five percent were 18-29 years old, 27% were 30-49 years old, 34% were 50-64 years old, and 34% were over 65 years old. Table 1 indicates survey respondent demographics compared to Maryland farmer demographics.

	Demographics of survey respondents (%)	Maryland farmer demographics (%)
Male	77	62
Female	20	38
Hispanic	8	1
Non-Hispanic or Latino	92	99
White	81	96
Black or African American	8	1
Asian	2	1
America Indian or Alaska Native	3	<1
Native Hawaiian or Pacific Islander	0	<1
Some Other Race	5	NA
Two or More Race	2	<1

Table 1. Demographic information of survey respondents and Maryland farmer demographics from 2022 Census of Agriculture (USDA NASS, 2022)

The respondents' number of years of farming and number of acres farmed varied (Figure 1). Fifty-one percent of respondents farmed full-time, while 49% farmed part-time, with the percent of household income coming from farming varying (Table 2).



Figure 1. Proportion of respondents number of years of farming (a) and number of acres farmed (b).

Table 2.	The survey	v respondents'	percent of	household	income	comina tl	he farming
		y roopondonio	poroonic or	nouconoia	11001110	ooning a	no ioning

Household income coming from farming (%)	Percentage of respondents
>60	23
31-60	26
11-30	21
0-10	31

The majority of participants grew corn, soybean, and wheat (Figure 2a). Fifty-three percent of participants had no animal operations, but of those who had animal operations, they primarily raised poultry, beef, and dairy (Figure 2b).



Figure 2. Proportions of respondents growing various commodities (a) and raising various livestock (b).

Ratings of Barriers

Five of the potential barriers in the survey were related to markets and selling organic or transitional grain. Sixty-five percent of respondents believed "lacking connection to buyers or markets for their grain" was a moderate or extreme barrier, and 63% believed "the distance to buyers being too far" was a moderate or extreme barrier. Of the five barriers related to markets and selling, the barriers that the least number of farmers were concerned about (54%) were the "three-year transition process had too many risks and uncertainties" or the "premiums paid for organic were too low" (Figure 3).

Four of the potential barriers were related to farming equipment, including the need for separate storage, the difficulty of cleaning equipment between conventional and organic fields, farmers' lack of equipment or implements needed for organic farming, and the high price of equipment that would need to be purchased. Approximately 60% of respondents rated separate storage, difficulty of cleaning, and high price of equipment as moderate to extreme barriers, while 55% rated not having the needed equipment as moderate to extreme (Figure 3).



Figure 3. Percent of respondents indicating barriers as "moderate" or "extreme" for all respondents (blue bars) and for the respondents "most likely to transition" (orange bars).

Three of the barriers surveyed were related to soil management. The largest group of respondents, 55%, felt that the "Maryland Department of Agriculture nutrient management limitations on nitrogen and phosphorus making organic production difficult" presented a moderate or extreme barrier. Forty-five percent of respondents rated "being concerned about tillage degrading soil health" or "believing their poorly drained soils would make organic production too difficult" as a moderate or extreme barrier to transitioning to organic systems (Figure 3).

Three barriers surveyed were related to pest control. The largest percentage of respondents, 58%, ranked "deer pressure on my land making organic production too difficult" as a moderate or extreme barrier to transitioning to organic grain. Forty percent claimed "not being able to adequately protect fields from pollen or pesticide drift from surrounding conventional fields" as a moderate or extreme barrier. For 44% of respondents, "concern about being negatively judged by neighboring farmers due to weed pressure" was a moderator or extreme barrier (Figure 3).

Three barriers surveyed were related to the process of organic certification. Fifty-four percent of respondents said that they "would rather not work with the regulations required for certification" as a moderate or extreme barrier, while only 32% said "not wanting to be associated with organic" was a moderate or extreme barrier. Forty-three percent indicated "additional record-keeping required is problematic" as a moderate or extreme barrier (Figure 3).

About 46% of respondents considered cultural barriers to be moderate or extreme. These barriers included being "more comfortable sticking with what they know" and "believing their current practices as better" (Figure 3).

Two barriers surveyed were related to land tenure. Only 38% of respondents indicated that the lack of interest on the part of landlords of rented land was a moderate or extreme barrier, but 55% believed their "year-to-year lease making it too risky to transition and certify fields" was a moderate or severe barrier (Figure 3).

In an open-ended survey question asking about other barriers, respondents indicated there was a need for support through education and funding. For example, respondents wrote in, "Federal government lack of support for organic farmers," "mentorship may or may not be available," and "lack of knowledge on the requirements, process, and marketing. I have interest, but not knowledge."

In response to the question, "If the above mentioned barriers were addressed, would you consider transitioning part or all of your farm to organic production?" 23% (14 respondents) said "yes," while another 42% said "maybe," and 35% said "no." The 23% of respondents that said "yes" to this question can be considered to be farmers that appear most serious about transitioning to organic production and are hereafter referred to as the respondents "most likely to transition." For the respondents "most likely to transition," the top-ranked barriers were related to markets and equipment. Seventy-one percent of these respondents said "lacking connection to buyers/markets" and the "distance to buyers being too far" was a moderate or extreme barrier, and 71% said they "did not have the needed equipment or implements for organic farming" and the "farm equipment needed for organic farming was too expensive" (Figure 3). When comparing the "most likely to transition" respondents to the other respondents, the "most likely to transition" respondents to the other respondents, the "most likely to transition" respondents or "extreme" barrier (p < 0.1).

Correlations among barriers

Significant correlations (p < 0.05) were found among different barriers. The strongest correlation between barriers was "not having needed equipment or implements for organic farming" being correlated with "farm equipment needed for organic farming being too expensive" (r = 0.819). The "lack of connection to buyers/markets" was correlated with "distance to buyers being too far away" (r = 0.652). The "additional record-keeping required being problematic" was correlated with "rather not working with the regulations required for certification" (r = 0.607). The barrier of the "three-year transition process having too many risks and uncertainties" was correlated with "prices fluctuate too much" (r = 0.610).

Discussion

The six barriers perceived as moderate or extreme by the greatest number of respondents were all related to markets and selling organic or transitional grain or related to farming equipment; 60% or more of the respondents viewed these barriers as moderate or extreme (Figure 3). Overall, the greatest perceived barrier among respondents was the lack of buyers for organic or transitional crops; 64% cited this as a moderate or extreme barrier. Less than 14% of respondents considered "lacking connection to buyers/markets" or "distance to buyers is too far" as "Not a barrier." Even among the "most likely to transition" group of respondents, the top-ranked barriers were related to markets and equipment, with over 70% of respondents in this group ranking these barriers as moderate or extreme. While the current results were from Maryland and neighboring area farmers, similar barriers were recognized through surveys conducted in other regions of the country (Constance and Choi, 2010; Han and Grudens-Schuck, 2022). National policies and initiatives may help overcome common barriers and encourage US farmers to grow organic grain.

Organic operations rely heavily on specialized weed management equipment and implements (e.g., row cultivators, finger weeders, high residue cultivators, etc.) that are often not needed for conventional farmers who can rely more heavily on herbicides for weed control. In addition, organic farmers often farm less acreage than their conventional farmer counterparts, and are therefore seeking smaller pieces of equipment. This niche market for organic equipment can lead to equipment shortages or higher equipment prices. Deer pressure can also be particularly detrimental for organic operations. Deer grazing can delay canopy closure (e.g., in soybean), which can increase weed pressure in organic fields. This can exacerbate the weed problems for organic farmers who are already limited in their weed control toolbox since they have limited herbicide options. In addition, organic farmers depend on higher per acre net return than their conventional farmer counterparts, and therefore yield loss from deer pressure will result in greater proportional financial loss for organic farmers than their conventional farmer counterparts.

For most of the barriers investigated, the percentage of respondents who considered them to be moderate or extreme did not differ between the "most likely to transition" group of respondents and the other respondents. However, three barriers—price fluctuations, record-keeping, and landlord interest—were significantly less likely to be considered moderate or extreme for the "most likely to transition" group of respondents compared to the other respondents. Offering extension programming addressing these three barriers may help more farmers to be comfortable to transition to organic production. For example, educational programs could introduce record-keeping resources and tools.

Barriers were grouped in the survey into categories of concerns. Results confirmed that farmer ratings of barriers within each group were positively correlated with each other. These correlations increase confidence in the survey design. Furthermore, the positive correlations between barriers confirms that barriers are sometimes multifaceted. For example, farmers face both a lack of equipment and the equipment is too expensive. Understanding these correlations can guide extension programs to help farmers overcome barriers. For example, facilitating equipment-sharing opportunities or costshare programs could help address the equipment availability and cost barriers. Farmers who faced barriers associated with connection to markets were more likely to also say buyers were too far away. When considering how to expand markets, distance is a critical factor. Previous studies also found distance to markets as a major barrier to organic farmers (Han and Grudens-Schuck, 2022).

As expected, the correlations showed that farmers concerned about extra regulations were also concerned about record-keeping. Educational programs could address both of these issues by helping to explain regulations and offering ideas or tools to help with record-keeping. Positive correlations also suggested that farmers concerned with the three-year transition process were likewise concerned with price fluctuations. It makes sense that farmers would be hesitant to commit to a three-year preparation period to produce a product with highly variable prices.

Incidentally, in the research field trials associated with this survey project, in three of the four trial sites, the lack of a buyer interested in transitional products proved to be a major barrier. Researchers were not able to find any buyers who would give preference or premiums to crops produced during the organic transition period. Even for certified organic crops, buyers were scarce and far away. The one participating farmer who successfully marketed his organic crops did so either by processing them into value-added products (organic animal feed) for direct sale to users, or through special arrangements with local end-users that required specific crop varieties and characteristics (such as awnless oats for oat beer brewing). In addition, the lack of suitable equipment for tillage, weed control, cultivation, and hay-making was a major barrier in the field trial sites.

The surveyed barriers of deer pressure and state nutrient limitations were perceived as moderate or extreme by 58% and 55% of respondents, respectively. Only 11% of respondents considered state nutrient limitations as "Not a barrier." These two issues present major challenges for all types of agriculture in Maryland. Maryland nitrogen and phosphorus nutrient application limitations are especially limiting for organic farmers who cannot easily use fertilizers to balance these nutrients when applying organic amendments such as manure and compost. A 2024 Maryland survey with 400 responses from primarily non-organic farmers, found that 54% and 53% of respondents selected "wildlife damage" and "regulations," respectively, as significant farm challenges. These were the second and third highest ranked farm challenges, falling behind "input costs," and falling above weather, markets, pests and diseases, labor, loss of farmland, and public perception (Dill et al., 2025).

Our organic transition survey did not include a specific question about weed control as a barrier. Weed management may have been considered by respondents under the barrier "concern about being negatively judged by neighboring farmers due to weed pressure", and under the equipment-related barriers (for example, the need for high residue cultivators and other specialized weeding implements). Whereas only 44% of respondents viewed being negatively judged for weeds by neighbors as a moderate or extreme barrier, 55% viewed "do not have needed equipment or implements for organic

farming" and 60% viewed "farm equipment needed for organic farming is too expensive" as moderate or extreme barrier. Respondents were more concerned about issues such as marketing and access to equipment than issues surrounding perceptions by others, e.g., what neighbors will think about weedy fields. In fact, the barrier perceived as moderate or extreme by the *least* number of respondents was "not wanting to be associated with organics." Only 32% of respondents viewed this as a moderate or extreme barrier, and 46% of respondents said this was not a barrier. The social issue of aversion to being associated with organic farming was less important than expected.

There were several limitations to the study. The study would be improved by increasing the survey sample size. Including farmers from a larger geographic region would have increased the relevance of the results to a broader farming audience. With regard to survey design, the question, "If the above-mentioned barriers were addressed, would you consider transitioning part or all of your farm to organic production?" would be clearer if "would you consider transitioning" had been replaced by "would you transition." In addition, the barriers related to weed management could have been better stated. Weed management is a well-documented challenge in organic farming. A national survey performed by Stephenson et al. (2022) found that weed management was the only "obstacle to organic farming" indicated as a "major" obstacle by all three groups of certified organic farmers, transitioning to organic farmers, and farmers who began the process of transitioning but changed their mind. The current survey question asks about "concern about being negatively judged by neighboring farmers due to weed pressure" and asks about access to organic farming equipment, which would include weed control implements, but does not directly ask about concern that weed pressure will impact crop yields. Such a direct question would be informative since farmers may be concerned about weeds, but not concerned about what their neighbors think about their weedy fields.

Conclusion and Next Steps

This survey of primarily Maryland farmers indicated that access to markets and appropriate farming equipment are the greatest perceived barriers to transitioning from conventional to organic grain production. In addition, issues that represent major challenges in Maryland for all farmer types, such as deer pressure and nutrient regulations, further dissuade farmers from attempting to transition to organic grain production. Addressing barriers and increasing educational efforts will be important for expanding organic grain production in the region. The survey results can be used to prioritize extension programming, focusing on addressing the greatest perceived barriers. Extension educators can help inform farmers about opportunities and resources that may be available and help facilitate connections. For example, an organic transitional grain directory of buyers and producers for the mid-Atlantic region was created by Future Harvest and University of Maryland to help connect farmers with markets (https://futureharvest.org/resources/resources-for-consumers/organictransitions/). Events such as field-days, workshops and roundtables can allow farmers and educators to network and share ideas. Han and Grudens-Schuck (2022) found that despite the existence of government programs to support organic transition programs, at the local level, agency staff were not knowledgeable or helpful with enrolling farmers in these programs. Extension educators could provide guidance to help farmers navigate government programs (e.g., https://go.umd.edu/cultivatingconservation) or help farmers with regulations and record-keeping. In addition, extension educators could help facilitate new opportunities, such as an equipment cost-share cooperative.

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Appendix: Survey

Barriers preventing transitioning to organic grain production

University of Maryland and Future Harvest would like to gain insight into the barriers preventing conventional grain farmers from transitioning fields to organic grain production. We will use this information to develop educational programs. The survey should take no more than 5 minutes of your time, and answers will be confidential and not linked to any individual. By completing the survey, you will have the option to enter into a drawing to win one of five \$100 VISA gift cards. By completing this survey, you indicate that you are at least 18 years old and understand the purpose of this survey and freely and voluntarily choose to participate. More information on consent process is available at: https://go.umd.edu/organictransitionconsent. We appreciate your time and feedback.

Barriers related to infrast	tructure, finances, marketin	g and logistics	
Check what best describes	your current situation		
1. The three-year transition	process has too many risks ar	nd uncertainties	
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
2. Prices fluctuate too much	h		
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
3. Organic price premiums	are not enough to compensate	for lower yield and highe	er costs
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
4. Lacking connection to bu	yers/markets		
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
5. Distance to buyers is too	far		
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
6. Difficult to have separate	e storage bins for organic vs co	nventional grain	
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
7. Issue of cleaning equipm	ent between organic and non-	organic fields	
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
8. Do not have needed equ	ipment or implements for orga	anic farming	
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
9. Farm equipment needed	for organic farming is too exp	ensive	
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
Barriers related to crop p	roduction, soil health and fe	ertility	
10. Concerned about tillage	degrading soil health		
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
11. Maryland nutrient man	agement limitations on nitroge	en and phosphorus make	organic production difficult
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
12. My poorly drained soils	will make organic production	too difficult	
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
13. Deer pressure on my la	nd will make organic production	on too difficult	
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
14. Can't adequately protect	t my fields from nollen or nes	ticide drift from conventio	onal fields surrounding me
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
Parriers related to cultur	al norms		
An Annual Streated to Cultur	ar norms		
15. Concern about being ne	Samewhat of a bassion	g rarmers que to weed pr	Extrame barrier
Not a barrier	somewhat of a barrier	Moderate Barrier	Extreme barrier
16. Do not want to be asso	clated with organic	Madaata Baaiaa	Fortuna harrian
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
17. Additional record keepi	ng required is problematic		• • • • • • • • • • • • •
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
18. Would rather not work	with the regulations required	for certification	• · · · · · · · · · · · · · · · · · · ·
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier
19. More comfortable stick	ing with what I know		
Not a barrier	Somewhat of a barrier	Moderate Barrier	Extreme barrier

20. Believe my current practices are better Not a barrier Somewhat of a barrier Moderate Barrier Extreme barrier
Parriers related to land ownership
21. Least the land and the owner isn't interested
Not a barrier Somewhat of a barrier Moderate Barrier Extreme barrier
22. My year-to-year lease makes it too risky to transition and certify fields
Not a barrier Somewhat of a barrier Moderate Barrier Extreme barrier
23. Are we missing any barriers preventing conventional grain farmers from transitioning fields to organic grain production?
Please list.
24. If the above-mentioned barriers were addressed, would you consider transitioning part or all of your farm to organic
production?
Yes No Maybe
25. If the above-mentioned harriers were addressed, are you interested in growing grain for:
Animal concumption of biofuels — Human concumption — Both
Animal consumption of biordelsHuman consumptionBoth
26. Are you interested in learning more about growing grains for human consumption?
Yes No Maybe
27. Years of farming experience
I have started within the past year 1-3 4-10 11-20 >20
28. Acres in cropland or pasture
1-5 6-20 21-100 101-500 >500
29. Farm zip code
30. Full or part-time farming?
Full-time Part-time
31. Household income from farming:
0.10% 11.30% 31.60% >60%
23 Commedities grown
Sz. commodules grown
ComSoybeansWheatBarleyOthers, please list
33. Animal Operations
None Beef Dairy Poultry Small ruminants Swine
Others, please list
Demographic Information
34. What is your age?
18-29 30-49 50-64 Over 65
Male Female Lorefer not to sav
36. What is your ethnicity?
Hispanic or Latino Non-Hispanic or Latino
35. What is your race?
American Indian or Alaskan Native Asian Black or African-American
Native Hawaiian or Other Pacific Islander White Two or More Races Some other race
Thank you for your feedback!
Please return your survey to:
Somerset County Extension Office
30730 Park Drive
Princess Anne, MD 21853 MIARY LAND FUTURE HARVEST
EXTENSION Consequence for Sostainable Agriculture