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INTERPRETING TRANSITIONAL CHALLENGES FACED BY PENNSYLVANIA
DAIRY FARMERS AND THEIR FAMILIES

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ABSTRACT

The Pennsylvania dairy industry is in a time of transition. Farm facilities are becoming outdated and economic realities have shifted to larger-scale, more automated processing. In addition to the need for significant investments in facilities, the majority of principal farm operators are aging toward retirement or semi-retirement. Through in-depth interviews with nine Pennsylvania dairy farm families, this study documents and interprets the business and social concerns of dairy farm families as they address aging or other life-changes that affect their plans for transitioning out of the industry. The majority of participants reported enduring some type of major shock (death, divorce, drug abuse, injury, etc.) to their family and/or business, most often with negative impacts. Some farmers develop transition plans prior to major shocks happening. Others, unfortunately, do not plan until it is too late. Undesired consequences of having no succession plan in place may include substantial tax obligations and legal fees, the forced running of the business by unprepared owners, family conflict, and the division or liquidation of farm assets. Few previous studies analyze dairy farm succession planning in context of business shocks. Very little literature addresses the post-shock reality of farm businesses and families forced to decide how to transition after a major disturbance to the operation occurs. Further, existing literature fails to tie the issues faced by farm families together with existing assistance resources available to them, recommendations for additional investigation, or succession planning case study scenarios that they may be able to relate to for further guidance. Our small sample size of should not be generalized to the larger Pennsylvania dairy farm family population. However, the findings of this study do provide insight for farms with characteristics similar to its population. It is also fair to say that many, if not all, dairy farmers will find some observations here that may be applied to their own situation. The primary conclusions include recommendations for the development of new succession planning material and service resources, along with the identification of subject areas where industry experts might focus their efforts. It will be the combined job of dairy farmers and industry experts to apply these results toward continuation and long-term success of dairy farms in the state.

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Chapter 1: Introduction

1.1 Overview

Farmers in the Pennsylvania dairy industry need help more than ever right now because the milk market prices are very low and many farmers are approaching the age of retirement (USDA, NASS – 1, Social Security Administration). The Pennsylvania Dairy Industry is currently in a severe economic downturn, causing additional stress on the financial wellbeing of operations across the state. No matter what size the farms are, everyone is faced with hardships and great uncertainty. Many farmers worry that their farm will not survive the low prices they're receiving for their milk, potentially causing them to go out of business and make it nearly impossible and very undesirable for the next generation to take over the existing operation (Farm Credit East). According to 2012 Census of Agriculture data, the average age of all Pennsylvania principal farm operators, dairy and otherwise, is 56.1 (USDA, NASS – 2, 2017). The industry is also in the middle of a time where facility updates are becoming necessary in order to continue production. This is not a novel situation for the industry. Rather, it's part of a cyclical pattern in the dairy industry, which has been occurring for years. In 2009 dairy farmers suffered the joint effects of a cyclical downturn in milk prices, elevated input costs, and a severe recession that impacted both domestic and international demand. (USDA, 2010). Although the nation is not currently experiencing a recession, dairy farmers are faced with a downturn in milk prices, elevated input costs, and the need for milking parlor and other facility updates.

This is forcing farmers to decide whether or not to make large capital investments in facility and equipment updates while in the middle of an industry economic downturn, all while many of them are considering how to retire without necessarily selling the farm to someone outside of the family. The number of young and beginning farmers interested in entering the dairy industry are very few, primarily due to the volatile milk market prices, lack of existing incentives for increased milk production and the many hardships farmers face.

To better understand the business and social challenges Pennsylvania dairy farmers face as they navigate through their business transition processes, nine farmers participated in in-depth interviews to share their transition planning experiences. By discussing each farm's history and future goals, these participants identified challenges they've had in the past related to succession planning and concerns that they have when considering the future of the farm. The end result of this study was the creation of nine case studies, which were then analyzed to identify common challenges, situations, concerns, and goals of each family dairy farm business.

Participation in this study involved talking for approximately one hour about the business and social challenges they face related to succession planning for their farm. The general outline of discussion areas that were followed for each interview can be found in Appendix A. Part of the case study data analysis included identifying needs for new training materials and/or concepts for industry experts to focus on. Study findings will be shared with the participants, industry leaders and educators at the conclusion of the research study.

1.2 Purpose

The purpose of this study is to conduct exploratory research in effort to better understand business transition challenges faced by Pennsylvania dairy farmers and the solutions and possible outcomes available for them. By identifying and better understanding these challenges, industry educators, experts and other resource organizations can better meet the needs of those farmers.

Succession planning is critical for Pennsylvania dairy farmers because it serves as component of a household's risk management strategy. Additionally, succession planning focuses the owners on how to continue the business, if that is their desire, specifically by keeping it in the family. Planning how to keep the farm within the family for generations to come is especially important to Pennsylvania dairy farms, as many have been owned by the same family for over 100 years. Through the Century and Bicentennial Farm Program, the Department of Agriculture recognizes Pennsylvania families who have been farming the same land for 100 and 200 years. To date, the Department of Agriculture has recognized 2,026 Century and 180 Bicentennial farms, representing 2,206 families dedicated to both their heritage and production agriculture (Pennsylvania Department of Agriculture - 3). Thus, there are more than the asset value and legal preparation to consider in the business transition process. There are also social and emotional considerations to be made involving traditions, dynamics, and communication within the family.

The Pennsylvania dairy industry is in a time of transition. Aging facilities and a shift in economic realities of the industry to larger, more automated processing comes at a time when a large part of the farm operator population is also aging toward retirement or semi-retirement.

During this transition time, major decisions regarding financial investments must be made. The decision-making process involving large financial investments is easier for farmers who have transition plans in place. For example, a farmer who has identified a next generation successor will likely be more inclined to make major necessary investments on the farm than a farmer who does not have a vision of the future for the farm. Therefore, having a transition plan and vision for the future of the farm in place will guide the decisions made on the farm today.

This study will document and interpret the business and social concerns of dairy farmers interviewed as they address aging or other life-changes that affect their plans for transitioning out of the industry. Because nearly every situation is different, there are certainly gaps in existing literature and resources available to farmers. Some farmers might need assistance focused on financial management, while others may need third party assistance in coping with emotional issues from their situation. Often, farmers delay beginning the succession planning process. Because these changes are so situationally specific, finding patterns requires a more qualitative approach to develop case scenarios that might assist a wide range of future farm businesses in addressing their transitional concerns.

The findings may be useful to educators and other professionals who work directly with farmers to plan their transitions. By identifying and better understanding the various challenges Pennsylvania dairy farmers face related to business transition and succession planning, new materials and programs can be developed that cater to the unmet needs. A better understanding of the transitional challenges faced by Pennsylvania dairy farmers may lead policy makers to pay

closer attention to the issue and possibly alter the factors that prevent or promote the succession of family farms.

Gaining a better understanding of the factors that influence succession may allow policymakers to alter these factors to prevent or promote structural changes, depending on the prevailing social, political, and economic goals. Additionally, an examination of dairy farm family succession decisions will facilitate the discussion of strategic planning as well as guide educational and business programs (Mishra and Hisham, 2007).

The declining number of dairy farms and questions regarding what the future holds for dairying in Pennsylvania are critically important for policymakers, agribusinesses, dairy producers, and those involved in higher education through research, extension, and teaching. States like Pennsylvania perhaps have more at stake regarding the issue, given the predominance of a single commodity (i.e., dairy) (Stokes, 2006).

This is an exploratory study, as it will rely on qualitative data from a limited sample of farmers. However, it may be used to guide further research on a larger population in the future. No matter what type of farm (dairy or otherwise, small or large) is being considered, all farmers eventually face a time where they must consider how they will exit the industry. Dairy farmers are particularly interesting to consider for this study because they often have large amounts of capital investments and highly illiquid assets that prevent them from having an easy exit out of the industry. Furthermore, with many dairy farms, there's often a high level of personal interest, history, and emotion from family members tied to the farm. This complicates

the discussion of transition and the planning process for many farmers because they have to deal with the legal, financial and emotional aspects of business transition and/or estate planning all at the same time.

The future of dairy farming in Pennsylvania and Pennsylvania's role as a leading dairy state are important issues for others as well. Agribusinesses have a stake in the livelihood of the state's dairy sector through the inputs they provide to the sector such as purchased feed, pharmaceuticals, and machinery and equipment. Additionally, the state has a large investment in milk processing infrastructure, which employs many of the state's rural residents. Dairy producers themselves have an interest in better understanding the drivers of structural change in the sector since many are facing critical issues such as whether or not to expand, when to retire, and how to best facilitate intergenerational transfer (Stokes, 2006).

Benefits to Others:

This study will help other Pennsylvania dairy farmers recognize common challenges associated with business transition planning and hopefully make them understand that they are not the only ones dealing with troubling issues in their family farm business. By reviewing this research, Pennsylvania dairy farmers and industry experts may be exposed to a variety of case scenarios, from which this study's key takeaways and conclusions related to transition planning have been drawn from. Most importantly, the primary hope for this study is to serve as a tool for industry experts in the Pennsylvania dairy industry to help dairy farmers through their transition planning process.

Interview Experience for PA Dairy Farmers:

By participating in this study, the Pennsylvania Dairy Farmer participants had the opportunity to tell their business and family story. These farmers had the opportunity to share their stories, positive or negative, as a contribution to the greater good of the industry. Through their stories, new ideas were identified, as well as an improved understanding of the challenges they face. As a result, their contribution to this study will have an impact on how they, and other farmers in the industry, might move forward when considering how to ensure future success of their business. Participants had the opportunity to contribute and express what would have been most helpful for them or what would be most helpful considering business transition planning for their family farm. Ultimately, the identification of their past successes, current roadblocks and future goals may help smooth the path of farm business succession for themselves and other farm families in the future.

1.3 Terminology

The following list of terms are defined in a way that fit the context for which they are used in this study. Many of these terms are subjective in nature, so it's important to clearly understand the ways in which they are referred to for this research study.

Family (Dairy) Farm – An agricultural business, (Which specializes in dairy production), that is owned primarily or entirely by the operator and individuals related to the operator by blood, marriage, or adoption. This definition includes relatives who do not live in the same household.

Intergenerational Transfer – Passing the ownership, management, and financial control of the farm business from the senior generation to a younger generation

Major Shocks – Events, usually unplanned and unexpected, that may significantly disrupt the daily operation and economic wellbeing of the farm business. Such events may include death, divorce, drug abuse, natural disaster, and others that may lead to a negative impact.

Principal Operator – The individual who runs the farm by making the day-to-day management decision. For the purposes of this study, the Principal Operator is the current owner(s) of the farm business.

Risk Aversion – The level of uncertainty or chance-taking a farmer is willing to bear. This term can be used in the context of insurance, business planning, and making capital investments, etc.

Succession – The orderly transfer of ownership, management, and control of the farm business from the current owner to the next individual who will take over.

Succession Planning – The process of identifying and developing new owners for the farm business who can replace old owners when they wish to or have to exit the business. Identifying the individual(s) who will assume the roles of ownership as they become available.

Successor – Someone who is identified as the next owner of the farm and who has a desire to run the business in the future. In the context of this study, the successor is often the next generation within the farm’s family.

Transition – How the farm business changes and evolves over time, especially after going through a major event or crisis

1.4 Pennsylvania Dairy Industry Background

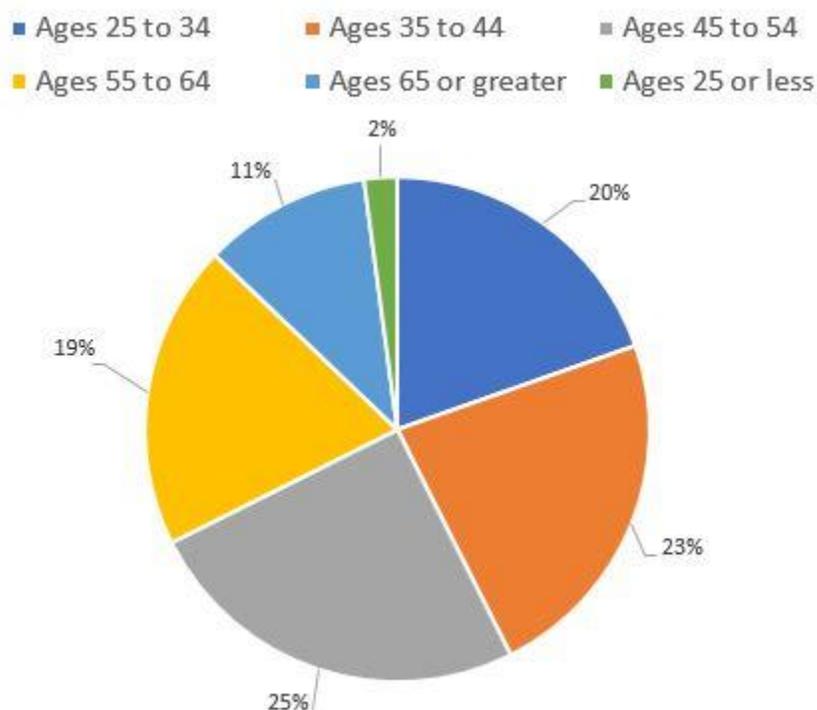
It's important to first understand the broad overview of the Pennsylvania dairy industry. As stated by the Center for Dairy Excellence, Pennsylvania is ranked 6th in total milk production nationally, with the commonwealth’s 525,000 cows producing more than 10.8 billion pounds of milk annually. The state’s annual milk production per cow is just over 20,000 pounds – or about 2,454 gallons – per cow. Pennsylvania has the second largest number of dairy farms nationally, having more dairy farms than every other state except Wisconsin (Center for Dairy Excellence – 2). Across the country, dairy farms come in a wide range of sizes. The largest U.S. dairy farms have over 15,000 cows, though farms with 1,000–5,000 cows are more common (MacDonald, et al. 2007).

The Pennsylvania dairy industry is currently facing a time where many farmers are approaching the age of retirement, while at the same time there is a feeling of uncertainty by many regarding the milk market and the ability of small producers to remain competitive. One study has shown that milk prices, price volatility, land values, and the dairy termination program

have all had pervasive effects on exit from dairying in Pennsylvania. Similarly, milk price volatility is generally a deterrent to entry for small dairies, the size that new dairies entering the sector are most likely to be. Dairy farm size growth is inhibited by milk price volatility and land values but responds positively to higher milk prices. Growth and contraction are positively related to productivity through milk production per cow (Stokes, 2006). According to the Center for Dairy Excellence, in 2016, Pennsylvania lost 120 dairy farms. Currently, about 6,650 dairy farms are located in Pennsylvania, representing 15.9 percent of all dairy farms across the nation. Pennsylvania's average herd size is around 80 cows, with 99 percent of all dairy farms in Pennsylvania family owned. (Center for Dairy Excellence – 2).

The United States Department of Agriculture's National Agricultural Statistics Service, reported a total of 6,554 dairy farm principal operators in the state of Pennsylvania in 2012 (USDA, NASS, 2012 - 1). It's important to recognize how this group of farmers is categorized by age because it helps understand how many young versus aging farmers there are in the Pennsylvania dairy industry. Figure 1 shows the distribution of Pennsylvania dairy farms by the farm principal operator's age. As of 2012, in the age ranges of 25 or less, 25-34, 35-44, 45-54, 55-64, and 65 or greater, the number of Pennsylvania dairy farm principal operators was 137, 1298, 1512, 1647, 1267 and 695, respectively (USDA, NASS, 2012 - 1).

Figure 1: Pennsylvania Dairy Farm Principal Operators by Age, USDA, NASS 2012

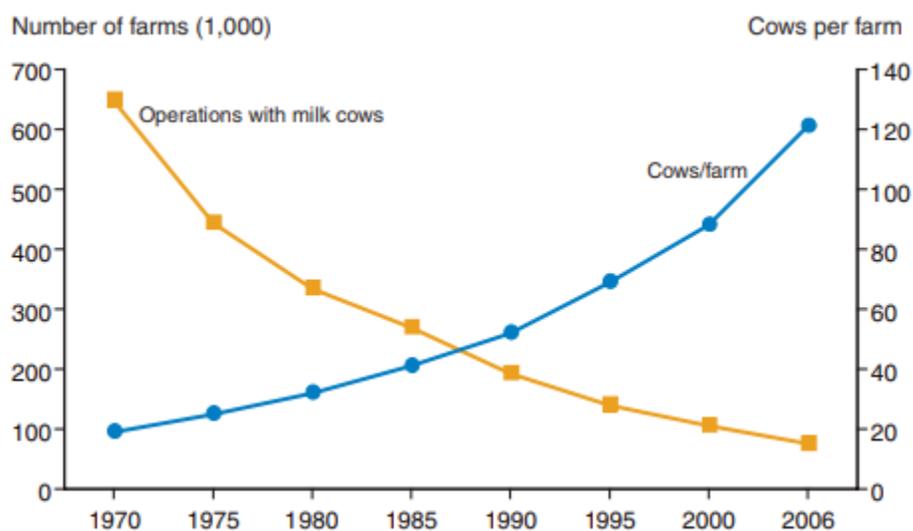


Source: USDA, NASS (2012) Pennsylvania Dairy Farm Principal Operator (Primary Occupation Farming), Age Categories

At both the state and national levels, the number of existing dairy farms is shrinking, while at the same time, the average size of farms is growing (Figure 2) (MacDonald, et al. 2007). This implies that there is consolidation occurring within the dairy industry, which is particularly important as succession of family dairy farms is considered. According to the 2012 Agriculture Census data, the average age of all Pennsylvania principal farm operators, dairy and otherwise, is 56.1, which is nearly a year older than the average age reported in 2007 Census data, which was 55.2 (USDA, NASS, 2017). As a consequence of the aging of the farm population, transfer of

ownership and control of large amounts of farmland can be expected in the near term (Pitts et al, 2009).

Figure 2 The number of dairy farms is declining, while the average size is growing



Source: USDA, NASS.

Changes in the size and location of existing dairy farms is important to consider because these factors will make a difference in how the next generation will manage the farm compared to how daily operations were handled in the past. A report from the USDA Economic Research Service stated that between 1970 and 2006, the number of farms with dairy cows fell steadily and sharply, from 648,000 operations in 1970 to 75,000 in 2006, or 88 percent (MacDonald et al. 2007). Both at the national and state levels, the dairy industry is experiencing ongoing substantial growth in production and a concentration in large dairy farms (Table 1). Total dairy cows fell from 12 million in 1970 to 9.1 million in 2006, so the average herd size rose from just 19 cows per farm in 1970 to 120 cows in 2006. Additionally, because milk production per cow doubled between 1970 and 2006 (from 9,751 to 19,951 pounds per year), total milk production rose, and average milk production per farm increased twelvefold (Figure __) (MacDonald et al. 2007).

Understanding the overall dairy industry trends is important when considering the succession of Pennsylvania family dairy farms. In this day and age, the next generation coming into the business needs understand which direction the industry is headed and keep in mind that their ability to increase the efficiencies and production output of their family dairy operation is essential if they are to remain competitive.

Table 1 Changes in the size structure of U.S. dairy farms, 2000-2006

Herd size No. Head	Number of operations		% change	Percent of inventory		Percent of production	
	2000	2006		2000	2006	2000	2006
1-29	30,810	21,280	-31.0	2.9	1.9	1.8	1.2
30-49	22,110	14,145	-36.0	9.1	6.0	7.7	4.9
50-99	31,360	22,215	-29.2	22.0	16.3	19.4	14.3
100-199	12,865	9,780	-24.0	18.0	14.1	17.3	13.0
200-499	5,350	4,577	-14.4	16.7	15.0	18.0	15.0
500-999	1,700	1,700	0	12.0	12.6	13.7	14.3
1,000-1,999	695	870	+25.2	10.1	12.5	11.6	13.9
2,000+	280	573	+104.6	9.2	21.6	10.5	23.4
Total	105,170	75,140	-25.5	100.0	100.0	100.0	100.0

Source: USDA, NASS Milk Production, Feb. issue (through 2004); USDA, NASS Farms, Land in Farms and Livestock Operations (after 2004). Herd size refers to all dairy cows on an enterprise, including dry cows but excluding calves, heifers, and bulls.

Table 2 Milk production and farm structure in major dairy states, 2000-2006

State	Production			Herd size			
				<100 head		>499 head	
	1994	2000	2006	2000	2006	2000	2006
	<i>(Billion pounds)</i>			<i>(Percent of State production)</i>			
Northeast	24.0	25.5	25.3	46.5	38.9	10.4	21.3
NY	11.4	11.9	12.0	34.0	28.5	16.0	31.0
PA	10.2	10.9	10.7	63.0	53.0	3.0	10.0
VT	2.4	2.7	2.6	35.0	26.0	16.0	29.0
E. Corn Belt	12.3	12.8	15.3	39.9	28.4	13.1	31.2
IN	2.3	2.6	3.3	51.0	29.0	10.0	43.0
MI	5.5	5.9	7.1	28.0	18.0	20.0	39.0
OH	4.5	4.3	4.9	49.5	36.0	5.5	23.0
Upper Midwest	31.7	31.0	31.8	56.7	48.2	8.9	15.6
MN	9.3	8.8	8.4	59.5	47.5	8.5	17.5
WI	22.4	22.2	23.4	56.0	45.0	9.0	19.0
Southwest	11.6	13.6	17.8	2.8	1.6	78.2	87.3
NM	3.3	5.6	7.6	0.2	0.2	98.0	98.0
AZ	2.1	2.9	3.7	0.4	0.5	95.0	98.0
TX	6.2	5.1	7.1	7.0	2.0	47.0	78.0
West	37.3	50.1	59.9	1.8	1.3	73.4	84.2
CA	25.0	33.3	38.8	0.6	0.5	78.0	88.0
CO	1.6	1.9	2.5	3.0	1.9	63.0	83.0
ID	3.8	7.8	10.9	4.5	2.0	74.0	89.0
OR	1.7	1.6	2.2	8.0	6.0	39.0	54.0
WA	5.2	5.5	5.5	3.0	2.4	58.0	70.0
16 major States	116.9	133.0	150.1	26.9	20.4	41.0	54.0
US	153.6	167.6	181.8	28.9	20.4	35.8	51.6

Source: USDA, NASS Milk Production, monthly issues (through 2004); USDA, NASS Farms, Land in Farms and Livestock Operations (after 2004).

The Pennsylvania dairy industry is aging with outdated facilities and aging farmers. In any farm-based industry, there are cycles where major upgrades or shifts are necessary. At this time, the Pennsylvania dairy industry is in the middle of one of these cycles, so it's critical to evaluate how those major changes are discussed and handled by farm families and the industry as a whole. Understanding how major shifts and/or upgrades are discussed and handled by farm families is essential to aiding the development of their transition plan. Major industry shifts and upgrades caused by the cyclical pattern in the industry often leave farmers faced with

difficult financial decision. Today, many farmers in the industry are faced with poor milk prices, but at the same time cannot continue efficient operation without significant investments in the farm infrastructure. At the same time, it's even more difficult for young and beginning farmers to enter the industry if they do not have an existing senior generation to pass it down to them, whether it be gifted or at a negotiated price. The younger generation who wishes to begin dairy farming in Pennsylvania is often faced with high capital investments, a low borrowing capacity, and limited land availability, all while faced with volatile milk market prices. By understanding the desires and future goals of the current manager of the farm and those of the identified future successor, transition plans can be developed to help ease the burden farmers face from these cyclical industry patterns. Because the development of a transition plan for farmers is so critical, it is necessary to understand their most serious challenges and provide adequate resources to help with their planning processes.

Major shocks to farm businesses – unrelated to natural business cycles – often occur and drastically change how the farm business is structured, operated, and owned. These shocks may be caused by drastic events in the lives of the farm families, ranging from death or divorce to serious injury, devastating fire or natural disaster. Rather than figuring out how to move on after this type of event happens, it's much more beneficial to have contingency and transition plans in place prior to these events happening. Planning and preparing the business for these types of events prior to them happening will prevent farmers and/or their families from making critical decisions under high pressure and levels of stress. To better determine how to educate and assist farmers with planning and preparing for major shocks to the business, it's essential to evaluate a variety of case-scenarios where major shocks have occurred on the farm. Identifying patterns

across such case scenarios will allow a better understanding of how to best help farmers prepare their farm businesses and families for these changes and ultimately provide the ability to develop reasonable transition plans to ensure survival of the farm.

For the purposes of this study, we define the following as possible major shocks to a business:

- Drug/Alcohol Addiction
- Abuse (Physical or Emotional)
- Divorce
- Depression
- Illness/Injury
- Death
- Family Relationship Failure Consequences
- Dramatic Shift in Industry/Macro-Economy
- Fire
- Natural Disaster
- Livestock Disease Outbreak
- Farm Accident

Major shocks may significantly disrupt the daily operation and economic wellbeing of the farm business. Many farmers believe that these types of incidents will never happen to them, but the reality is that most of the events mentioned happen unexpectedly, causing additional strains on the family and farm.

Chapter 2: Review of Literature

2.1 Small Business Succession

Before focusing on the transitional issues faced specifically by Pennsylvania dairy farm families, it's important to review existing literature on small business succession in general. Many dairy farm succession issues are specific to farms and to dairy, but there are also commonalities with non-farm small, family owned businesses. One study explores some of the issues small businesses face regarding succession from one owner to the next, particularly in effort to ensure survival and growth. It highlights the key issues identified, including recruiting employees with potential, considering the work and career motives of potential successors and ways of transferring organizational and personal knowledge from the owner-manager to the successor, whether it be an internal employee or a new purchaser (Sambrook, 2005).

Another study aims to review business and academic literature on the topic of business succession planning. The purpose of their research is to allow the vast quantity of evidence and opinion to be contextualized and enable a better understanding of the key themes within business succession planning, particularly with respect to small, family-owned businesses. The approach to this particular study involved an extensive literature search of business magazines, journal databases, textbooks, and relevant reports and citations. A categorization of the evidence, involving over 400 articles, allowed informed discussions on the key themes surrounding business succession planning. Key findings that may be related back to the findings of our study include family succession, legal, financial, and fiscal components, barriers against

implementation, and methods for managing the process all as critical themes that should be considered by businesses as they face succession planning (Barry and Jacobs, 2006).

2.2 Pennsylvania Dairy Farm Family Business Succession

There are limited existing studies that analyze dairy farm succession planning, specifically investigating what happens when the business receives a shock. Very few pieces of existing literature address the post-shock reality of farm businesses and families that must decide how to transition after a major disturbance to the operation occurs. Further, most existing literature fails to tie together the issues faced by farm families with existing resources available to them, the recommendation for additional investigation, or succession planning case study scenarios that they may be able to relate to for further guidance (Kimhi and Nachlielie, 2001; Weiss, 1999; Glauben, Tietje and Weiss, 1993; Stiglbauer and Weiss, 2000).

Most of the existing agriculture economics literature focused on family farm business succession planning was conducted internationally, in European countries, Australia and Israel. Some high-level content from these studies may be useful in building new research approaches, but many farms in other countries are much different in terms of production and financial structure compared to Pennsylvania dairy farms.

Numerous pieces of existing literature express concern and a need for continued research related to succession planning for farmers. There have been several studies conducted that focus on the communication barriers and dialectical tensions among farm family members (Pitts, Margaret et al - 1, 2; Paskewitz et al, 2017; Putnam et al, 2016). Other studies have analyzed factors affecting succession decisions for family farms (Massis et al, 2008; Mishra and Hisham,

2007), however, something that seems to be missing from many existing studies is the development of new material for farmers to use as a resource to overcome challenges identified in the conclusion of the studies. As existing studies and resources available to farmers become outdated, the need for new training and planning material for industry experts and farmers becomes increasingly urgent. With the number of small farms rapidly declining in the United States and an increasing number of farmers soon faced with retirement decisions, focusing on succession planning for family farms is critical. Existing literature shows that farm households control a substantial amount of wealth, so failure to plan carefully for retirement and estate transfers can result in serious problems for both the family and the business (Mishra and Hisham, 2007).

One study has shown that a farm succession plan does not happen overnight. It can take several years, even decades to evolve. Large sums of time can be devoted to the consideration of legal structures. Such legal structures may include trusts, partnerships, limited liability companies, sole proprietor, or a combination of these, among others (Stephens, 2011). To begin the succession planning process, it's important to have a full picture of the current state of the farm and mapping out where the farm needs to be in order to survive in the future. According to Mike Stephens, essential facts and figures must be collected as part of the succession planning process. Such information may include record of who owns what (land, machinery, stock, livestock), assets and liabilities, unofficial loans and book loans within the family, and issues of un-paid or under paid wages to family members. Collection of such information will provide a clear understanding of who is currently in control, who holds existing business equity, and ultimately get the farmer thinking about how he or she needs to begin transferring that

ownership. Multiple times Stephens explains succession planning involves the transferring of ownership of machinery, livestock, management, financial control, and land (Stephens, 2011).

After identifying what the current state of the farm is, existing owners and managers of the operation need to identify where they see themselves and the business in the future. Do they wish to retire in the next few years? Is there an existing potential successor or successor already identified? Dunaway argues that the market value of a farm is often well below its value as a "going concern" and this illustrates the fact that retirement and succession cannot be disentangled from day-to-day farm management decisions (Dunaway, 1991). According to Mike Stephens, succession in the business and progression of an individual's careers are intertwined. Too often when the existing generation decides to move on, nobody is ready and waiting to follow. In some cases, the next generation may naturally have other aspirations, while in some cases the next generation could have been chased away from the farm operation by an individual or a sense of frustration. Indeed, a whole generation of potential farmers was likely "chased" from the industry by watching the effect of the 1980s farm financial crisis on their parents and neighbors or were discouraged from returning to the farm even when relatives were able to hold on to their land through that era (Gale, 1992). Alternatively, the next generation may be ready to take over before the older generation is ready to pass control, or the next generation wants more time before returning to the family business (Stephens, 2011).

As farmers begin considering how they wish to exit the industry, they may face concerns about tax liabilities, handing over financial control, what to do with their free time after retirement, or how the farm business will balance retirement for the senior generation while financially supporting the next generation as a source of household income. In addition to growing concerns about how to meet the retirement needs of older farmers, it is disconcerting

that few senior operators have decided how managerial control of the farm will be passed to a successor prior to their death. For example, of 106 farm operators studied in California, only half had identified a successor (Girard and Baker, 2005). A similar study of 400 Iowa farmers found less than a third had selected a successor (Duffy et al, 2000).

A study using an Agricultural Resource Management Survey (ARMS) of the USDA examined farms, the farm operators, and the family characteristics that affected farm succession within the family. This study, published in the 2007 Journal of the American Society of Farm Managers and Rural Appraisers (ASFMRA), focused on analyzing the factors that are likely to influence family succession on U.S. family farms, which are comprised of different economic sizes and in different regions across the country (Mishra and Hisham, 2007). Results indicated that large farms are more likely to be transferred within families than smaller farms. Levels of debt, education, and being engaged in farm enterprises affect within-family transfers of the farm business (Mishra and Hisham, 2007).

It seems surprising that succession is often not planned well in advance of a major shock to the farm business or years prior to when the senior generation wishes to exit the business. Many studies show that most entrepreneurs want the ownership and management of the family business to remain in the family, which takes a considerable amount of strategic planning and time (Kirby and Lee, 1996). One piece of literature showed that compared with an outside owner, a family member has a higher degree of loyalty to the family, the business, and the local community, which is a benefit to the future of the business. Growing up within a family business allows the younger generation to acquire knowledge by watching and completing tasks alongside the senior generation. It gives the younger generation years of an inside perspective that might

not be otherwise seen by an outsider coming in to take over the business. (Bjuggren and Sund, 1998).

Another study published by Bjuggren et al. in 2001 concluded that the complexity facing the owner and the family when they wish to plan and carry out an intergenerational succession within the family is overwhelming for many. Personal as well as economic factors can be difficult obstacles. In their study focused on strategic decision making in intergenerational successions of small and medium-sized family owned businesses, they explained that it must be decided if the potential successor is of an age where he or she is adequately mature and knowledgeable enough to assume a position of ownership. In contrast, if the younger generation is not given the opportunity to take over while they are still young, the chance of an efficient intergenerational succession might be lost (Bjuggren et al, 2001).

Not many pieces of existing literature acknowledge the reasons for why farmers delay the succession planning process. One study did find that despite the seemingly increased pressure to develop a succession plan, there are some logical reasons to delay the planning process, such as the monetary costs and time spent on developing a plan. However, costs connected with succession planning must be compared to the unlimited costs that may be incurred if something happens and there is no plan to implement, like inheritance tax and uncertainties about future ownership. Further, many families put off succession planning because of external factors such as poor seasons or prices. No business is immune from these external factors; however, the planning process should not be postponed indefinitely because of external factors. More often it is internal, family issues which inhibit planning progress. In most situations, delays in succession planning can cause frustration and disagreements among family members. Family farm

businesses which have a clear, developed plan that is understood by the whole family have a greater chance of future success (Stephens, 2011).

Sociology literature provides a few studies and discussions on the topic of farm transfer and succession, but not much. Most existing literature is focused on the sociology involved in succession planning for farm businesses, including how family dynamics communication barriers play a role in the achieving a smooth succession to the next generation. Research focused on dialectical tensions underpinning family farm succession planning concluded that most participants attributed a high level of importance to succession planning, but conceded that they had not done enough planning. Passive communication styles, unresolved issues, and uncertainty in their lives were inhibiting factors. Rather than rely on a “wait and see” approach, it helps to be inclusive of younger generations in key discussions and decisions about the future of the farm. (Pitts et al - 1, 2009).

Relatively little is known about why families wait to make farm transfer arrangements. Delayed planning is a complex, challenging problem. Another study focused on barriers to productive conversations and obstacles to making decisions faced by small Pennsylvania farmers showed that passive communication, delays in planning due to unresolved issues in the lives of adult children, waiting for children to make career decisions, and concerns about the stability of the successor’s family and marriage were all communication issues that inhibited progress in succession planning (Pitts et al, 2009). This study also concluded that intra-family communication dynamics among farm families rely heavily on implicit understandings and expectations regarding other family members’ intentions, roles, and responsibilities (Pitts et al, 2009)

Much of the discussion within the farm succession planning literature seems to be framed from within a power-holder centered perspective; with much of the attention focused on how operators choose and groom their successors and pass on the farm management control (e.g., Gasson et al, 1988; Hastings, 1984). In contrast, Pitts, et al. found that there are issues in the lives of the younger generation family members, beyond the “control” of older generation members that can delay or derail the succession planning process. This literature then explains that intergenerational transfer of ownership and management can be helped by being inclusive of younger generations in key discussions and decisions about the future of the farm (Pitts et al - 1, 2009). Family members need the opportunity to share their individually held view, to explore common goals and values, and to move forward together in establishing a shared vision for the farm and family (Pitts et al - 1, 2009).

Another study stated that any succession plan has more chance of working if the people involved start to think about it [succession planning] and talk about it [succession planning] earlier rather than later (Stephens, 2011).

Mike Stephens’ study focused on how to be successful in farm succession planning was conducted in Australia in 2011 (Stephens, 2011). Despite international differences, there are some useful conclusions to consider as succession planning for Pennsylvania dairy farms is considered. Stephens found that when dealing with any farm succession matters, the following important principles need to be observed by those who are involved in succession planning:

- To work out what the existing generation wants to do – where they will live and what they will do in retirement
- To identify the needs, aspirations and expectations of each family member in each generation. Sometimes expectations need to be managed
- To build, maintain and repair (if necessary) any relationships between family members
- To look at transferring management and control of the farm over time
- To sort out how to transfer ownership of the farm

- To decide what deal there should be for the incoming generation and what provisions to make for the non-farming children

Further, Stephens' research found that succession planning advice most often comes from accountants, lawyers or financial planners (Stephens,2011). Other advisors who can assist with people and dynamic farming issues may also need to be part of the planning process using a team approach. The team of transition advisors needs to agree with the client on a pathway to:

- Establish the senior generation's broad direction
- Understand the desired direction of all family members
- Collect information and develop a plan, which may involve looking at the productivity and profitability of the farm. The collection of information can be complex, as it most often includes:
 - Land ownership: which individuals or entities are the registered owners?
 - Livestock: which individuals or entities are the owners?
 - Machinery and Equipment: which individuals or entities are the registered owners?
 - What is the financial situation and how is the business performing?
 - Are there any non-farm or underperforming assets?

No reviewed literature placed an emphasis on the separation of emotional ties from financial situations for farmers, which is an area that will be further explored in this study. Mike Stephens refers to succession planning as a process, not an event. It is a process which should emphasize the needs of the people and the business. When it is clear what those needs are, the accounting and legal issues can be addressed. Succession planning requires a team approach (Stephens, 201). His findings suggest the development of an inclusive succession plan should follow key steps including:

1. Ensuring that all the advisors are all working for the family as a whole
2. The key family members should meet with the project manager to work out who and when should attend further meetings; and create an outline of the process.
3. Get the key people committed from each generation and set clear, unbiased rules for all to follow

4. Draw up a genogram, which can be helpful in creating a visual of the existing family dynamics surrounding the family farm business.

There are a number of reasons for Pennsylvania dairy farmers to exit the industry. Some wish to retire, while others are forced due to extenuating circumstances and major shocks to the business, such as death, divorce, injury, illness, etc. Dairy farm succession is particularly interesting to investigate because there are usually multiple family members involved and the industry is unique in the way it's organized compared to other industries. Pesquin et al. explains that a successor is more common on dairy farms since work can be divided easily between multiple people. Furthermore, dairy farms may have more stable and reliable sources of income and dairy producers are more attuned to record keeping and financial management than some other agricultural producers (Pesquin et al, 1999). also points out dairy operations require a diverse set of skills, allowing more flexibility and specialization among owners. Some argue that dairy farms require a steady supply of family labor and are perceived as a relatively stable source of income compared to some other farm types (Mishra and Hisham, 2007).

The choice of succession mode is the outcome of an interaction process between generations where the legal system plays an important role, with civil and tax laws determining the transaction costs of the different succession alternatives (Bjuggren and Sund, 2001). A paper discussing intergenerational succession of small and medium-sized family owned business concluded that external factors, such as legal systems, play a significant role the success level of business transitions – no matter what industry is being considered (Bjuggren and Sund, 2001). The unwillingness or incapability to initiate and plan the inevitable succession of the family business can be a result of the entrepreneur being too busy running and controlling the firm (Poe,

1980). Fears of losing a key role in the family business can be another reason for a current owner postponing the inevitable (Lansberg, 1998).

Existing literature has made some comparisons to on-farm investment behaviors for farms with a successor already identified and for farms without a successor identified. Potter and Loblely show that on-farm investment behavior of farmers without successors was radically different from that of those where a successor has already been identified (Potter and Loblely, 1992). Kimhi and Nachlieli conducted a study involving Israeli family farms to better understand farm business transfers from one generation to the next. They found that age of the operator, level of schooling of the operator, and the age of the oldest child as significant factors in having an identified successor. Additionally, they concluded that the number of children and off-farm work did not have any impact on the probability of having an intra-family successor (Kimhi and Nachlieli, 2001).

Other literature provides evidence that an operator's education level is an important factor that determines structural change in the farm sector. The findings may reflect the notion that parents with a higher education level may process information, allocate resources, and evaluate new technologies more effectively. As a result, this would raise the current farm's earning capacity and delay the farm transfer (Tweeten, 1984; Goddard et al, 1993).

Mishra concluded that identification of a successor can act as a trigger for business development, and existence of a successor can provide a powerful motivation for ongoing investment in the business even into the old age of the farmer who's exiting the business (Mishra and Hisham, 2007).

Tweeten and Zulauf point out that intrafamily farm succession allows farmers entering the industry to more easily overcome borrowing constraints, that may otherwise hinder their market entry ability. Deciding to enter or withdraw from an agriculture business are often tied to the family life cycle and are especially related to the availability of a successor (Tweeten and Zulauf, 1994).

It is necessary to establish whether or not there are historic constraints which restrict the choices of the farm family in the way they think about the farm as an asset, and whether they see it as a business where they are in control or in a business which controls them (Stephens, 2011).

Finally, we must consider the costs and benefits associated with succession planning, and identify how important farmers perceive succession planning to be. Mishra and Hisham's national survey focused on factors affecting succession decisions in family farm businesses showed that failure to plan carefully for retirement and transfer of the estate can result in serious problems such as financial insecurity, personal and family dissatisfaction, and unanticipated capital losses (Mishra and Hisham, 2007). One reason being that in family farms, the farm itself constitutes a physical asset that is highly illiquid, indivisible to a large extent, and in most cases, constitutes a large fraction (if not all) of family wealth (Mishra and Hisham, 2007). This literature deemed the family farm as more than a profit maximizing enterprise. It is an asset whose productive life expectancy may extend well beyond that of its operator, and whose future value depends crucially on its continuous functioning; it is a place of residence for the farmer in old age; and it is attached to land, whose symbolic importance exceeds its economic value in many societies (Mishra and Hisham, 2007). This study concluded that succession planning is part of the business plan development for farm operations and should specify when, how, and under what circumstances management of the business will pass from the current owner to the

next. Retirement and farm business succession are interconnected and are reflective of the life cycles of the farm household and farm business. Growth, consolidation, and exit phases of a business may overlap with the retirement and transfer phase of a household (Mishra and Hisham, 2007).

The correlation between retirement and succession has been a rising interest in part because of the aging farm population, many of whom will be faced with decisions about the transfer of their farms in the next decades. For others, the wealth embedded in farm ownership will provide, upon liquidation of the asset base, a stream of income for post-retirement living expenditures (Mishra and Hisham, 2007). Kotlikoff and Spivak argue that succession within the family enables the extended family to enjoy the benefits of intergenerational risk-sharing when markets are volatile (Kotlikoff and Spivak, 1981). Tweeten and Zulauf explain that intergenerational succession allows young and beginning farmers to overcome barriers to entry, such as their ability to borrow large loans from a bank (Tweeten and Zulauf, 1994).

Existing Industry Experts and Resources:

University extension education programs provide a wealth of background information and training materials for dairy farmers who may or may not have farm transfer and estate planning strategies in the works. Several popular university extension programs that address farm estate planning including University of Minnesota, Pennsylvania State University, Michigan State University, and UC Davis to name a few. There are three primary sources of information and training materials available to dairy farmers faced with transitioning and estate planning issues. Those primary sources include small businesses, legal materials, and extension. Challenges faced by extension educators and succession planning experts is getting farmers to

understand the feasibility of planning and obtaining their willingness to put in the time and costs associated with estate planning processes.

Farm credit associations offer a variety of programs to help farmers adequately prepare for the future of their farms. Such programs include Generation Next, business consulting services, and special events that are often co-hosted with other organizations that are actively involved in the Pennsylvania agriculture industry (Farm Credit, Farm Credit East - 2).

Other organizations specific to Pennsylvania offer a wealth of succession planning tools and materials. Such organizations include the Pennsylvania Farm Bureau, the Center for Dairy Excellence, The Pennsylvania Department of Agriculture, Pennsylvania Farm Link, among others. Workshops, planning materials, consultants, and member programs are a few of the many resources available through Pennsylvania organizations that focus on succession planning (Pennsylvania Farm Bureau; Pennsylvania Farm Link; Penn State Extension; Pennsylvania Department of Agriculture – 2).

Programs such as Pennsylvania Department of Agriculture's Agricultural, Communities and Rural Environmental Act (ACRE), the Farmland Preservation Program, and the Next Generation Farmer Loan Program are all designed to protect current and future generations of agricultural producers in Pennsylvania.

Businesses such as law firms, accounting offices, and tax preparers also offer a variety of services that contribute to the overall planning of estates and business transfers. Many existing programs are offered at a price, and much of the estate planning process involves the payment of service fees. Additionally, farmers must forego time spent working on the farm to attend events, meetings, and complete necessary paperwork associated with succession planning.

Chapter 3: Research Questions

1. What is the current state of the farm today, and where does it need to be in order to survive in the future?
2. What is the likely future of this farm, given the current state and future plans of the owner?
3. What is the current challenge faced by the farmer, which has prompted the consideration for transitioning?
4. How are the farmers evaluating their situations?
5. How do the issues/crises faced by the farmers get discussed between all individuals involved?
6. How do we address emotional portions of an issue versus the financial portions of an issue?
7. What are the solutions already considered by the farmer, and how does he/she plan to go about beginning their transition?
8. What determines the PA dairy farmer's exit decisions?
9. Are on-farm investment behaviors of farmers without successors different from those where a successor has already been identified?

Chapter 4: Methodology

Non-statistical methods of analysis were utilized in the study to group and analyze themes derived from the data collected from key informant interviews. Each interview was recorded using an audio recording device. The audio recordings were saved and sessions transcribed and annotated by the researcher. Then, data was coded for themes to identify commonalities and patterns amongst participant responses.

Nine Pennsylvania dairy farm businesses representing varied case scenarios were visited. In-depth interviews were conducted with leaders of those farm businesses. Interviews were audio recorded and supplemented with handwritten notes. Participants gave consent to be recorded as part of their written consent process. The following criteria were used to select the participants for this study:

1. Pennsylvania dairy farms of varying sizes

2. Farms at varying stages in the transition planning process
3. Farms with at least two generations having been involved in the farm operation
4. Farms centralized in one area of Pennsylvania

The researcher conducted a standard qualitative analysis on the interview data. For privacy and confidentiality protection, no individuals or farm situations were identified by name, location, or uniquely identifiable farm conditions in this study. Patterns and common areas of concern for Pennsylvania dairy farmers as they consider business transition planning were identified by the researcher. In addition to the nine Pennsylvania dairy farm businesses, the researcher met with several industry expert key informants to gain an understanding of their point of view within the Pennsylvania dairy industry and guide the overall research. These industry expert figures included a business consultant, an attorney, and representatives from organizations such as Pennsylvania Farm Link, the Pennsylvania Department of Agriculture, and the Center for Dairy Excellence. All of these industry experts are involved with familiar and frequently involved with farm transition planning as part of their occupation.

The analysis made by the researcher was reviewed by the research supervisor to determine if there are points of clarification or points of expansion that needed to be addressed. If clarification was needed from individual case farms, that follow-up was done by phone under the same existing consent guidelines.

After any necessary follow-up procedures were complete, the study concluded with the researcher completing the analysis and identifying particular areas of concern for dairy farmers facing the challenge of business succession planning. Part of this included identifying needs for new training materials and/or concepts for industry experts. Study findings were shared with the participants, industry leaders and educators at the conclusion of the research study.

This project involved using case studies as a research strategy, where the case studies were conducted and analyzed (Yin, 1994). A standard qualitative research approach was used in this study, as discussed in a research design publication by David Morgan (Morgan, 1997). Because this study focuses so heavily on the variables across all the case studies, variable research practices and techniques were used in the data collection and analysis processes (Tucker, Ernst, and Henry, 2004). Using a qualitative case study approach to conduct research was useful because each Pennsylvania farm and family situation is different. All scenarios are diverse in area such as size, productivity, major shocks endured, challenges, successes and planning position.

Chapter 5: Data Analysis

As indicated in **Table 3**, the families that participated represent a heterogeneous sample of family farm case scenarios in terms of family configuration, operation size, which family members were interviewed, and level of experience working on the farm succession planning situation.

Table 3 Information about Pennsylvania Dairy Farm Families Participating in the Study

Case Scenario	Generation #	Family Members Interviewed	Approximate Age of Current Principal Operator(s)	#Cows Milking	Acres Farmed
1	2	Son	49	3000	5000
2	6	Husband and Son	58	80	140
3	5	Husband	50	100	200
4	3	Son	48	2500	3000
5	2	Husband and Wife	38	150	200
6	3	Husband	51	210	400
7	4	Husband	69	35	100
8	3	Wife and Son	60	0	450
9	2	Husband and Wife	67	2000	3500

The initial part of the analysis is organized around the thematic questions used in the interviews. Additional concepts and areas of concern that arose during the interviews will also be analyzed, as they may unveil a need for additional research or development of materials.

5.1 Current State of Farm and Where it Needs to be

Three participants mentioned the existence of quality management when discussing where the farm needs to be in order to survive in the future. *“Right now, we have key managers*

running the operation who do a wonderful job. Excellent management needs to continue being a priority for the farm if we want it to thrive and survive,” said Farmer 9. Similarly, Farmer 4 stated that his family farm needs to be managed by someone who is always striving to increase efficiencies in all areas of the farm. *“If you want the farm to survive in the future, you have to be always be working to remain competitive against peers in the state, country, and world”* he explained.

Farmer 4 went on to explain the transition process that occurred when his generation took over the business from his father. He said, *“The senior generation’s vision was pretty key in how we got to where we are now, 30 years later. That same vision and planning needs to happen for us to successfully bring in the next generation after us.”* Making sure everyone is on the same page and working towards the same goals is an essential element to ensuring success and survival of the farm. *“For the farm to survive in the future, it’s critical that the management team has frequent meetings to continuously review where they’re at, where they’re going, how they plan to get there, and the motives behind their plan and actions”* said Farmer 8.

Nearly all participants identified considering production diversification as a way for the farm to survive in the future. Farmer 7 explained, *“Right now, we’re slowing down and milking less than 50 cows as we get closer to retirement. To survive in the future, the next generation probably needs to look at producing something other than milk, or else the farm will have to operate as a hobby farm rather than a productive business.”* Farmer 6, who is in the process of bringing in the next generation now, said that when his ancestors ran the farm, it was diversified. There was a variety of livestock and crops. Now the farm specializes in dairy production, but with the way the industry looks, Farmer 6 is uncertain of the future and said the farm may be forced to revert back to some type of diversification someday.

All nine participants discussed the need for facility updates of some form if their farms want to survive well into the future. *“To survive in the future, there will need to be facility updates for the next generation. Specifically, the milking parlor equipment will need replaced and more land will need to be acquired,”* explained Farmer 5. Similarly, Farmer 9 said, *“For our farm to continue in the future the next generation will need to make several large investments, including the construction of a new calf barn and a new heifer barn, which will allow improved cow comfort and ultimately boost production.”* By sharing his experience as a smaller producer who milks slightly more than 100 cows, Farmer 3 stressed the importance and need for facility updates, saying, *“When I bought the farm from my dad, the farm facilities were very rundown, requiring improvements over the years. The tie stalls were in rough shape and the milking equipment was outdated, so we created a free stall barn and updated the milking parlor. For the farm to continue in the future, other updates will need to be considered, especially if the next owner plans on running things differently than I do right now.”*

Situations where farmers are actively bringing in the next generation explained the importance of assessing the capability and genuine interests of the younger generation who plans to take over. The senior generation needs to be certain that the younger generation can handle the challenges of dairy farming and determine whether they are fully-dedicated to getting the farm where it needs to be to continue to thrive and survive.

Farmer 1 explained that all of his children are prospective successor of the business, but he encourages each of them to go off the farm to gain other perspectives, get an education, and have the chance to work elsewhere first. If, after all other options have been explored and any of his children still wish to enter the operation, the opportunity will exist for them to do so. No

matter what each of his children decide to do in the future, he want them to be sure about the choices they make. There's no pressure for them to work on the farm because that's not fair to them and it would ultimately cause problems in the future. In the case of Farmer 6, certainty that the next generation is fully committed to the operation is essential in the transition process. He wants to be sure he can depend on his children to take over the farm and that taking over the farm is something they want to do for the rest of their careers; especially because the farm transition process involves a lot of time and effort to ensure it goes smoothly. Often, farm transfers involve decades of decision making and planning; it's not something that happens overnight, nor an event that should occur every few years. There needs to be a level of confidence and stability as farms are transferred from one generation to the next.

5.2 Likely Future of Farm Given Current State and Plans

Succession/Takeover or bringing in of next generation

Nearly all farmers said their primary hope is that the next generation will take over the farm and lead it in the future. *"We would like to see the farm grow and remain in the family. One of our children has an interest in animals and one has a real interest in working on the farm. However, we are adamant that none of our children will join the partnership until they have a full picture of the entire operation and are sure that joining is what they really want to do"* said Farmer 5.

Farmer 2, who is currently working to transfer equity to his son, said he foresees his son owning the farm well into the future. Similarly, Farmer 5 said, *"Hopefully within the next few years we are not only able to have all of the management transferred to the younger generation,*

but also have some of the equity transferred as well. We want to get it to the point that my wife and I can start taking some time off and trust that the younger generation will be okay.”

Several farmers said they would like to successfully bring in the younger generation and after that, they hope the younger generation will find a way to bring their own children into the business so that the family farm can continue for decades to come. Farmer 1 said, *“The younger generation will likely take over full control and ownership of the business in the future, and I hope they eventually formulate a plan for how they’ll bring in the generation after them.”* Case scenario 9 has recently been through a transition, where they’ve brought multiple children and other relatives into the business so the senior generation can soon retire. They said, *“We’re almost 70, so in 20 years we probably won’t be around. Our hope is that our children are still the same owners and that they find a way to bring in their children someday to keep the farm going.”*

The future of the farm is up to the next generation’s desires and interests

A number of participants explained that the future of the family farm is up to the next generation’s desires and interests. A couple participants said that as they begin to retire, and even after they fully retire, they’ll be more than happy to discuss ideas that the younger generation might have. But ultimately, the direction and projects the farm takes in the future will be based on the younger generation’s plans and decisions. Farmer 8 said, *“My son and I talked about maybe getting cows again and looking into robots if that’s something he really wants to do, but I’ve kind of dissuaded him from that idea because today’s milk market makes that a very risky, significant investment. I guess after all the ownership is fully transferred to him and I exit the farm business, he can do what he wants.”*

Farmer 9 said, “We’d really like to do facility updates soon, especially if the next generation plans to keep the farm going for many more years. We can help the younger generation plan for those updates, but the actual investments will likely take place after we retire; hopefully in the next couple years.”

Right now, Case 7’s plan is for the senior generation to retire and pass the farm down to one of their five adult children. This farmer also said he believes the farm will have to operate as a part time job for his son who wishes to take over to support his own family of four children. Farmer 7 explained that the younger generation will have to decide which direction they want to take the farm in the future and then base any necessary capital investments on those plans. He said, *“The younger generation has some new ideas to be tested. Those ideas will be all on him because my wife and I are ready to retire, and we’re not in the position to make any significant capital investments right now.”*

Both the older and younger generations were present for the interview with Case 2. This allowed the future plans for the farm to be discussed by both generations, who seemed to share similar visions. The younger generation of case scenario 2 said, *“Right now we milk between 80 and 90 cows. That’s how it’s been for years, and I like our farm the way it is. I have no interest in being a mega-farm. If I can’t run the farm the way it is now, I don’t want to do it at all.”* The senior generation added that he had the same feeling about the farm’s size and daily operations when he had taken over from his parents many years ago.”

Farmers 3 and 4 each discussed the interest levels of the prospective generation as being a determinant of the farm’s future. *“Ideally, I’d like to keep the farm in in the family, but not if it’s entirely cost-prohibitive for it to continue. Really, the future of the farm is very uncertain right now. Much of the farm’s future will depend on whether the milk market prices continue to*

get worse or if they will improve significantly. Also, I have a son who is 15 and a daughter who is about to graduate high school and go to college at Penn State. Both of my children have already said they do not have an interest in being involved with the farm, so realistically, I'm probably the end of the line for family ownership” explained Farmer 3. When asked where he sees the farm being in 30 years, Farmer 4 said, “With regard to who will be farming the farm that far into the future, I suspect it will be someone in the family. If it ends up not being any of our children, then it probably won't be anyone. The interest level of the prospective successors will come out through trial and error over the next five to ten years.”

Challenges and concerns the senior generation have considering the future of the farm:

Although many of the participants wish for their farms to remain family owned and operated in the future, each of them identified challenges and concerns that may hinder a smooth transition to the next generation. Many of those challenges and concerns generate uncertainty in the succession planning process. Some of the challenges identified by participants include the dairy industry outlook, the younger generation's interest in taking over the farm, feasibility of the farm's size, productivity of the operation, and the farm's ability to support all the family members involved. Ultimately, the various challenges and concerns identified by the participants as they consider the likely future of the farm can be organized into the following 8 general categories:

- Increasing Efficiencies and Managing Finances
- Dairy Industry Overall
- Management, Stress, and Dedication to the Job and Lifestyle
- Communication and Relationships
- Continued Labor Shortages
- Understanding the Importance of Planning Ahead
- Land Security and Availability
- Future Regulation Changes

Increasing Efficiencies and Managing Finances:

Farmer 1 emphasized the importance of maintaining profitability and seeking new ways to increase efficiency in production. He said, *“The whole key to all this succession stuff is that the business has to be profitable. It [the business] has to be viable, and that is going to be an ongoing challenge for dairy farmers in Pennsylvania.”* Then he posed the question, *“Will our children be able to create enough efficiencies with small production units?”*

The biggest concern expressed regarding the future of the families' dairy farms is the ability of the younger generation to keep the cash flowing. Farmer 7 said, *“It's critical for the next generation to know how to make enough money and keep the cash flowing.”* Maintaining enough positive cash flow is something that many Pennsylvania dairy farmers are struggling with right now. Some farmers have found ways to generate additional cash for the farm, such as the sale of timber, as Farmers 3 and 8 indicated in their interviews. However, these additional cash sources are not sustainable in the long-run.

All of the farmers interviewed who are at or very near retirement age expressed a concern regarding the farm's ability to manage multiple financial responsibilities. Farmer 1 asked, *“How will business will be able to support my retirement, the families of the next generation taking over, and a debt load if that still exists? That's a very big concern I have for my family and farm's future.”*

A financial challenge Farmer 7 discussed is how to pull off a succession plan in such a way that the next generation has a reasonable chance at success while simultaneously balancing the retirement of the senior generation. Regarding his farm's current financial position, this farmer said he has some debts that he wishes to take care of prior to starting the succession

process. *“Balancing our retirement, transferring the farm ownership to the next generation, and not financially neglecting our other four children in the succession process is the biggest challenge for our family farm,”* explained Farmer 7.

Dairy Industry Overall:

Every individual Pennsylvania dairy farmer who participated in this study mentioned numerous times that the price they’re receiving for milk and the overall dairy industry future outlook are most concerning considering the future of their farms. *“Overall, there’s less of a demand for milk and at the same time there’s an oversupply, which is a serious concern for all dairy producers”* said Farmer 4. Farmer 1 said small farms are being pushed out of the industry at a fast rate. In relation to that idea, Farmer 3 said he predicts less farms and more large-scale operations are what will exist in the future. Farmer 8, who quit milking cows after her husband died and now custom raises heifers for a nearby farmer, said, *“I think we’re going to lose 30-40% of our current dairymen, which means you won’t need as many heifer raisers. You also won’t need as many dairy farm vendors and services, like the nutritionists, business consultants, milk inspectors or salesmen. Less of those jobs will be needed because there will be less farms to serve.”*

Management, Stress, and Dedication to the Job and Lifestyle:

Management ability, style, experience and knowledge of the younger generation are important to consider when identifying the next successor of the business. Management of a farm is far different than the “general labor” position that most farm children start out as. There is a lot to know and control as the farm manager, which is something Farmer 6 indicated as a concern for when the next generation comes into the family partnership. Farmer 6 said, *“One of the things both my kids have the least amount of experience in and need to spend more time in is the financial aspect of management. They’re trying to get the hands-on part under their belts first, but ultimately everything comes back to the books and they need to understand how everything on the farm is interconnected.”*

Farmer 3, who milks just over 100 cows, spent time in his interview discussing the consolidation occurring within the Pennsylvania dairy industry and how that might impact management of farms in the future. He said, *“Management is what’s changing. I think you’re going to see a lot more farm managers sitting in an office managing people instead of cows. Look at the big farms that exist now. The managers of those farms make sure everything gets done, but they’re not the ones necessarily breeding the cow, milking the cow, or planting the corn. They focus more on the big picture and not the day to day stuff.”*

Farmer 1, who milks around 3,000 cows, discussed the opportunities that exist for his children to enter the business someday if they express an interest and listed the characteristics necessary for them to succeed as future managers. He said, *“I hope our children are learning a good work ethic, stewardship, and learning to be financially conservative. Learning to determine*

what will help you be more efficient versus buying things you don't really need will be very important for the next generation as well."

Stress is an aspect of dairy farming that is particularly difficult to avoid. Stress can be caused by a number of different challenges on the farm, like financial pressure, operational imbalances, and relationship tensions.

Farmer 1, who discussed the possibility of his children entering the business someday, said "My kids have grown up with a lot of opportunity and had lots of time to work and save money. So, with that, they've always had to work, but financial stress has never been a real struggle for them yet. I hope when my kids are an owner or manager, whether it's on the farm or otherwise, that they are responsible and can work through the challenges when they do come. They haven't seen too much adversity in their lives yet.

Farmer 7, who is ready to retire but doesn't yet have a written transition plan in place said, *"How the next generation can justify farming through all the effort required and all the stress we [farmers] endure is beyond me. Don't get me wrong, it's a wonderful lifestyle to be a farmer, but we're not independently wealthy and there's always a lot on our plates to worry about."*

It's important for both the senior and younger generations to determine whether succession of the business is something that the younger generation is really interested in. Without genuine interest, the farm may quickly falter. Farmer 6, who is in the process of bringing two of his adult children into the farm business now, said that it's essential for both generations to know whether taking over the farm is something the kids want to do long-term, like for the rest of their lives, or not. If the children of the senior generation are fully committed to taking over the farm, "that's great", he said. The next step is to discuss whether the children's

spouses are on board with life on the farm and all it entails. Farmer 6 also posed two interesting questions of concern to him: *“Will the next generation become disillusioned by the long hours and the low pay?”* and *“Does the next generation see the benefit of working on a farm for yourself, even if it requires a lot of hours and sometimes not much pay?”*

Communication and Relationships:

As stated numerous times in existing literature, communication and dialectical tensions among family members and farm owners can be detrimental to the farm’s success. More specifically, these issues can cause challenges in the succession planning process and deter transitions from going smoothly. Farmer 9 said, “The younger generation needs to make sure they are able to work together to make decisions and not get bitter towards each other. They also must have the ability to communicate and handle the many pressures of dairy farming.” This farm family mentioned social media as being something to be concerned about in the future. Farmer 9 said he feels like the next generation is too attached to social media, and that those communication outlets are abused by some; especially in cases where there is family, personal, or employee conflict. He explained one incident where they had a bitter employee on the farm who tried to give the farm a bad image on social media, rather than discussing with the owners the issues and feelings he had. He indicated a problem in the current younger generation sharing everything online for the whole world to see, rather than keeping some issues or information private. Consequently, Farmer 9 said, *“The next generation needs to know how to keep their mouths shut sometimes and learn how to overlook the little thing.”*

In regards to communication challenges between the senior and younger generations of farmers, Farmer 8 said, *“The younger generation needs to be able to ask the senior generation about how things were done in the past and why they were done in that manner. They need to*

know how previous generations struggled and how they handled the challenges they faced.

Without that knowledge, the same mistakes might continue to be made.”

Another concern for many farmers relating to succession planning is the spouse's involvement and interest in the farm. In farm families where the spouse of the younger generation has different viewpoints than the rest of the farm family, there can be a lot of tension. In fact, several participants identified the past or planned use of prenuptial agreements as part of their succession planning process in effort to protect the farm and its assets, should a divorce of a farm owner occur. Farmer 2 said, *“If the spouse wasn't as committed as the individuals who wish to take over, things could get to a very contentious point.”*

Continued Labor Shortages:

Labor is a serious challenge for many Pennsylvania dairy farms, just as it is for many other farm types across the country. There's a lot of concern regarding the ability for farms to continue without an adequate, reliable labor supply. Farmer 4 said, *“It's increasingly difficult to find people who are willing and capable of working on the farm, so I see labor as being a primary issue for the next generation.”* Alluding to the fact that not all individuals are willing to carry out the physically demanding, dangerous tasks that dairy farming involves, Farmer 9 said, *“The next generation needs to recognize the reasons why labor is hard to come by, and have an appreciation for the hired help who is willing to work every day. Even if they aren't family or if they sometimes make mistakes; treat them right. If they aren't there, who else will there be to get all the work done?”*

Understanding the Importance of Planning Ahead:

When considering the challenges associated with succession of the farm, Farmer 1 confessed, *“When I entered the business, my biggest fear was that the transfer to me wouldn't go*

well and all the equity that my parents worked to build up for 30 years would be lost.” The powerful message behind this observation is one that all farmers can likely relate to.

Development and progression of farm businesses do not happen overnight. It’s important that the younger generation understands this and have appreciation for all the hard work their ancestors put in to get the farm to its current succession point. This leads to the observation many participants made in their interviews: transition plans should be developed early and revisited often, even if the plan is years from being implemented. There’s so much that can make or break a farm transition that it is important for the younger generation to realize that concept early on.

Having a plan in place prior to a major shock happening to the farm business is very important to preventing big decisions being made under extreme stress or pressure. Also, having a plan clearly mapped out and understood by all individuals involved will help to prevent family tension, anger, and hatred developing as a result of seemingly unfair and unexplained estate decisions. Farmer 4 shared the history of how the farm was passed from his grandfather to his father, and then from his father to he and his siblings, who now own the farm as a partnership with additional business entities. He said, *“The senior generation didn’t want to die and then have all of us kids in the younger generation fighting over who got what. He wanted to decide how things would be done after he’s gone. The reason my dad wanted to have a well-prepared estate plan is because when my grandfather passed away, there was an estate that he and his siblings had to deal with after the death of the senior generation. As a result, my dad and his siblings are still fighting today and not talking to each other because of how it all happened.”*

Both Farmers 2 and 4 discussed how critical early succession planning is, especially in cases where there are multiple business entities, multiple siblings, and/or multiple generations involved. Considering the multiple siblings and business entities in place, Farmer 4 said, *“The*

question for us looking toward the future is how we will be able to transfer the business to the next generation based on the way everything is set up right now. We've got a fairly complicated structure right now, with potentially many prospective successors to bring in as the next generation."

Case 2, which is a fairly simply structured operation, also discussed the importance of planning for transition in advance. Recognizing that they have a simple structure and plan in place, they discussed the challenges that some of the big operations probably have. Farmer 2 said, *"A transition from one person to one person is simpler than going from a four or five-person partnership to the next generation involving like eight people and multiple business entities."* Adding to that, he said, *"The more people involved in the business, the more opinions there are; which I'm sure can be a challenge. And, more people involved in the business also means less benefit to go around."*

Land Security and Availability:

Land security and availability was mentioned by several farmers as something that has been a challenge for them in the past and something that will only become a bigger problem in the future. Farmer 2 said several times that his farm is very land-locked, meaning they have no way to expand and physically grow the business if they wanted to. Land is difficult to acquire, especially in areas where the ground is so rich, productive, and therefore highly valued. Securing farmland is something that Farmer 1 said he focuses on, particularly because land is viewed as a strong limiting factor for many dairy farmers. He also discussed the importance of determining the feasibility and efficiency of small land parcels. For farmers who need land but don't necessarily have a strong financial position, is it worth it to make a large investment in something that might not be sufficiently productive? Farmer 1 made a good point about

considering the logistics of available land before jumping in and making an investment. His strategy when considering whether to buy available farmland is to find out how far from the main farm it is. The opportunity to acquire land adjacent to a farmer's existing property doesn't happen very often, unless a neighbor farm decides to go out of business or downsize their property. This is one of the biggest challenges when considering the "landlocked" issue for dairy farmers. Not having enough land can be a big bottleneck for some dairy operations in terms of both feed production and waste management planning.

Future Regulation Changes:

Regulations are a topic that create a lot of concern for Pennsylvania dairy farmers as they look toward the future. Whether it is development of stricter regulations, stricter enforcement of existing regulations, or changes in the way things have to be done in the context of existing regulations, there is uncertainty and emotion tied to regulations. Across the nine independent interviews completed, four different topics relating to regulation concerns were discussed, including labor, taxes, expansion projects, operational procedures.

Relating to challenges with labor, Farmer 9 said, *"If something happens with the immigration policies, it's concerning to think about what that will mean for labor in agricultural production across the country."* Farmer 8 discussed her concerns regarding the possible future changes to property tax laws, which would likely have a significant impact on farmers, who typically own large sums of land. She said she thinks the possible changes being considered would be very cost-prohibitive for farm owners. Farmer 4 discussed his concerns regarding possible future changes to the death tax policies. He said the potential changes in the death tax laws in 2012 imposed a lot of fear. *"Basically, if Congress had passed the laws they were considering at that time and one of my parents died, then us kids would have had to come up*

with enough money to pay the government, which would have basically put our farm out of business,” said Farmer 4. Pertaining to expansion projects and operational procedures, Farmer 3 said, *“Stricter regulations on the way things have to be done will continue to be an issue for the next generation.”* During the interview, Farmer 8 discussed the diversification considerations she’s made recently, but sees regulations being a challenge for the ideas she has had so far.

5.3 Current Transitional Challenges

Despite the relatively small sample size of only nine participants, there is much diversity in the current challenges that have prompted their consideration for transitioning. As predicted by the researcher, the majority of the participants have begun thinking about transitioning due to factors related to retirement. Five of the nine participants, including Farmers 2, 6, 7, 8, and 9, identified challenges associated with retirement from farm management and/or ownership as the primary reason for their current transition considerations. Farmers 2 and 6 are ready to retire; meanwhile they both have identified their children as the next successors of the farm. Both of these farmers recognized that there has to be give and take by both generations involved.

Farmers 1, 4, and 9 realize that their complicated business structures will require substantial planning in order to successfully bring in the next generation. Each of these three farms have multiple generations currently involved, have identified several prospective successors, milk several thousand cows, and cultivate several thousand acres. Consequently, it seems fair to conclude from what we learned in this study that larger enterprises with multiple business entities and growing families face different legal and structural challenges than smaller farms, which may have only one legal business entity. Succession planning needs to happen well

in advance of the prospective generation entering the business; especially for these larger sized operations with complicated business entity organization.

Farmer 8 is a widowed farmer's wife, who lost her husband unexpectedly several years ago. This tragedy led to the wife and son agreeing to exit the dairy production industry completely. Instead, they reorganized themselves to become a cropping and custom heifer raising farm. The unexpected death of her husband left Farmer 8 with quite a few decisions to make and challenges to overcome in a very short amount of time.

Farmer 6 shared that he has dealt with major shocks within the family in the past. A son, who was employed for years on the farm, began having marital problems that resulted in a divorce. This led to extreme depression, unhappiness, and angry outbursts. The parents later found that he had acquired a substance abuse problem, likely as a way to cope with pain of the divorce. Eventually, this son died in a car accident. Though the son was not directly involved in ownership of the business, he was an employee on the farm for several years and was part of the family. As a result, the family was forced to deal with pain, stress, and guilt from losing him while still effectively running the farm business and trying to bring two other children into the business.

Farmer 3 is the 5th generation on their family's dairy farm. His father and uncle had been in a partnership until the uncle suddenly passed away, just as Farmer 3 was graduating from college. This major shock forced him to decide whether he wanted to buy his uncle's half and join the partnership with his father or not. He made the decision to join the partnership with his father and eventually also bought his father's half so his father could retire. Today, Farmer 3 is the sole owner of the farm and has two children of his own. Both children have already

expressed not being interested in future involvement with the farm, leaving Farmer 3 faced with the reality that he will likely be the last generation of the family to run this business.

Farmer 5 shared that his uncle had a drug abuse problem, which caused a lot of tension, anger, and distraction from progression on the farm. Eventually, both the uncle and his wife died in a car accident and Farmer 5's father took over the farm. Shortly after, Farmer 5 and his wife joined the business and his father has since retired after the emergence of mental health, sleep and stress issues that caused accidents, conflicts and threats, lack of reliability in showing up to milk, and financial management problems. At this point, Farmer 5 believed his father did not have the physical or mental capacity to handle the common stresses of farming anymore and the younger generation had to take steps to gain control of the farm. Physical and mental incapacitation is something that may become more of a concern as controlling farmers live longer due to general increases in lifespan.

5.4 How Farmers Evaluate Their Situations

Two of the participants in this study indicated that they are following the same transition pattern that their ancestors used in their intergenerational process. Farmer 5 explained, *"We took a step back and looked at how old the senior generation was when they started the transition process, versus how old we were to help guide us in deciding how to handle our transition."* Similarly, Farmer 2 said, *"Our transition process is being done the same way that previous generations of our family did it"*. In addition to basing decisions and situations off family-traditional management practices, some farmers consider their sense of pride in continuing the operation. In Farmer 2's case he explained, *"I never pushed the tradition thing, but succession*

really comes back to tradition. Our farm has been in the family for six generations and I'd hate to see it end, especially because of me. Once the farm is gone, it's gone. Basically, the plan in my head is to do whatever I possibly can to keep the farm. The cows could come or go, but I'd do everything in my power to keep our family's farm and land."

The following is a list of critical questions that Farmer 6 often asks himself when considering his current situation and possible future:

- Are we viable at this size?
- Are we viable in Pennsylvania?
- Can we survive competing in a world market?
- At our current size, can the farm support not only two families in the next generation, but also the senior generation's retirement as equity is transitioned?
- Environmental regulations are important to consider. Is it going to become too expensive or too difficult to continue as is or to try something new in the future?
- Is funding and permitting available to do expansions or another related project? Will it continue to be accessible in the future?

Another farmer participant said he participates in a benchmarking program, which helps him focus on profitability and production goals. Seeing how this operation compares to its peers is important, as it's a way for them to always be evaluating themselves and looking towards the future.

In the evaluation of their situations, it's important for farmers to recognize where they are now and compare that to where they want to be. Some farmers have a well-defined path that will lead them where they want to go, while others have no plan at all. Farmer 4 recognizes that the business has evolved to be what it is today because the senior generation believed that an expansion needed to happen in order for the farm to continue and support multiple families. Looking forward, Farmer 4 estimates that the next transition plan implementation will need to start in about ten years, so within the next five years the current owners need to start making a

plan of how to bring in the next generation. *“I don’t want to still be here in fifteen or twenty years from now, so we need to start planning to avoid that happening”*, Farmer 4 explained. For Farmer 7, retirement is just around the corner. He’s been talking with his oldest son, who is close to 40 years old, about coming back to the farm. They both recognize that they need to develop and implement a transition soon. He explained, *“if my son doesn’t make the move back to the farm soon, his kids, who are between two and ten years old, might not be happy moving back here. It’s important to consider things like that.”*

5.5 How Issues/Crises Faced Get Discussed

For some farm families, conversations among individuals involved in the business are not a problem. For others, such conversations can tear families and their businesses apart. In this study’s nine case scenarios, there was a mixture of both situations. Some farm families said there is no conflict or tension while others said that disagreements, hurt-feelings, and tension are very common as a result of trying to communicate about succession. Farmer 9 said that, overall, conversations about planning and the future are productive, with the exception of one issue that they just cannot seem to get past.

“One time my husband and I sat down and discussed what we would do if something really bad would happen to him because he had some heart problems in the past. He made it clear that he didn’t want me trying to milk cows while working an off-farm job. Then, my husband died of a heart attack several years ago. Two or three days after he passed away, I sat down with my adult son and called the cattle jockey to figure out when to have the sale. It all

takes time. You have to always be talking about things and progressing because nothing pertaining to transitioning a business happens overnight,” explained Farmer 8.

Farmer 8, who has always had good communication between her husband and son said, *“I don’t think anybody really realizes how truly valuable it is to have good, open communication with everybody involved, whether they’re the person doing the day to day jobs, the boss, or the spouse.”* She shared a story from when her in-laws passed away and how her sister-in-law got very upset in the discussion of who gets what share of the money, farm, and house. She said, *“For many years, my sister-in-law, who never had any involvement on the farm like my husband did, felt like she’d been slighted; yet that feeling was never brought my or my husband’s attention. You have to make sure there are no underlying, undiscussed issues that will come out after a disaster or major crisis takes place. Especially if it involves money and/or hurt feelings, it is amazing to see what people will do. And, if there’s anybody that feels slighted, it comes out at that time, unfortunately.”* A word of caution from Farmer 8 is to be careful that nobody gets too focused on some incident that happened 20 years ago that they can’t get past the grudge they’re holding and determine how to fix the real problem. A situation like this can really hinder the productivity of conversations, and ultimately have an impact on the farm and family’s wellbeing.

Farmer 8’s experience with communication among family members was much different when her husband died and she was left with making decisions with her adult son, who had no ownership of the business at the time. She said, *“We were lucky to have pretty open communication regarding what the plan was, but for some families that’s not the case. Then, when disasters happen, things can get really ugly.”* Her son, who was present for part of the interview added, *“Well I think part of the challenge related to communication and dealing with the aftermath of a crisis to the farm and family is when the next generation starts having more*

say than they ever did before. When my dad was around, he took care of everything and I never really had a part in the business. Now my mom is in charge of the farm, so she asks for my opinion and we're on the same page, having open communication, which is not the case for many families."

Famer 3 said that when it comes to discussing issues within the farm business, everyone needs to be straightforward with each other. *"For example, this year we had to sit down and discuss what we really want to do because if there's no cash flow, you can't pay your bills and then you're out of business. Talking about money problems can be really hard for farmers to do, but you can't just pretend problems don't exist and not talk about them, otherwise things will just get worse for everybody involved," said Farmer 3.*

Farmer 8 said it's important to have a transition plan in place, but it's most important for everyone involved to know what the plan is and how it will be carried out. Clear communication about plans is essential for the plans to actually be implemented and work. *"I've seen good farms and good families broken up because they didn't have a plan, or didn't clearly communicate what the plan was, and therefore couldn't agree on how to move forward," she said.*

Famer 6, who has multiple children but is only bringing two of them into the farm business right now, said, *"There's some jealousy expressed between all the children sometimes. Sometimes the children will have their own conversations amongst themselves without the senior generation around. That's fine, but I try to make sure they know to come speak with me if there's ever a problem they want to discuss."*

When asked how business conversations between the senior and younger generations go, Farmer 6 said, *"Anyone in the family is free to initiate conversations. Nobody is afraid to speak up. My wife and daughter are the most willing to bring things up; my son is very quiet. We all*

bring different things to the conversations we have. I try to turn things into a learning experience; my son is very realistic and thinks strategically; my daughter is very positive and encouraging. A lot of our conversations happen during a family meal."

Farmer 5, who took over the farm after the senior generation owner began having mental health issues, explained the importance of all family members needing to be acknowledged by vendors when they visit the farm. He said, *"I can remember being young and not yet an owner in of the farm. A lot of the vendors used to brush me off and sometimes not even acknowledge me because I wasn't the owner. When it came time for me to take over from my dad, I began working only with the vendors who acknowledge and talk to me over the years. For those who didn't, I found someone else to work with once I was in charge."*

Farmer 5's wife said, *"The senior and younger generations have been through so much together emotionally, financially, and physically. There's been a lot that's happened to them over the years, so there's a greater sense of respect and appreciation for one another that I see now."*

Farmer 3 said he doesn't have a very concrete plan for the future, especially because both of his children determined they aren't interested, but conversations about the future have been discussed much more frequently in recent months, especially with how bad the milk market is right now. *"My wife and I talk about planning much more than we ever used to,"* said Farmer 3.

Many farmers said they feel that conversations facilitated by a 3rd party can be helpful and that it is important to always have all owners present for conversations involving major issues. Having someone moderate the conversations and making sure there is progress can help ensure that everyone's voice is heard and that conflict is kept to a minimum during the discussion.

5.6 How Emotional Versus Financial Issues are Addressed

When money problems are involved, decision making and relationships can become difficult. Some farmers in this study explained poor financial positions can quickly take the fun out of farming. Farmer 7 said it very simply, *“If there’s money to be had, decision making is a lot less complicated.”* According to Farmer 5, *“It’s always fun on the farm when things are good and there’s enough money to go around. But now, bills come in and farmers have to make a spreadsheet to decide how much they can’t pay each person and what bills get paid first.”* Regarding succession planning decisions, Farmer 3 said that financial issues are the biggest challenge for him. Deciding whether to structure a deal or gift assets to the younger generation is very difficult. *“Business, emotions, stress levels and relationships are always easy to control when there’s enough money. When there isn’t enough money, that’s when things really fall apart fast”*, explained Farmer 4.

“I’m not good with numbers. I’d rather be out in the field or playing with the cows than sitting down to do a balance sheet”, Said Farmer 3. Relating to how relationships and emotions play a role in financial decisions, Farmer 3 added, *“Back when we built the parlor, I wish my wife would have yelled at me and questioned whether I was sure about making such a significant investment. Instead, I feel like she just agreed to the investment decision because it was something I said I really wanted at the time”*

Several farmers listed external factors as having an impact on the connection between emotions and farm finance. Farmer 6 explained that his emotions are pretty tied to the financials right now, especially because of the volatility and overall downturn in the milk market. Another farmer confessed, *“I’ve thought my exit options through a good bit over the past few months, and I told my wife that if it comes down to selling everything, I have to be okay with it. I can’t be that*

type of farmer who believes the farm is my life and that I won't be able to live without it. I'm sure there's a life after milking cows and I'm sure it would be an emotional situation to deal with, but I've been trying to prepare myself for that because this industry is very volatile and uncertain at the moment."

The majority of participants in this study made a connection between their financial wellbeing and level of stress and anxiety experienced. Farmer 5 explained that financial problems and the stress that goes along with it are what affected the senior generation's mind to the point that there was a forced transfer of ownership to the younger generation. Since being pushed to the physical and mental limits of financial stress within the farm business during really hard times, the senior generation in case scenario 5 is now incapable of handling any amount of stress. The same family also said, *"We've touched every part of this farm over the years and made it better. We get frustrated and discouraged because even if you give 150% of yourself to the operation, you still might not have any money to show for it at the end of the month."* In case scenario 6, where the senior generation is working to bring in two of his adult children as the next generation right now, said, *"I've been experiencing more anxiety than I've ever had before in my life with the stress of the financials and worrying that two other families are starting to depend on us to do things the best we can and make the right decisions."* This statement leads us to analyzing the financial dependence on the farm for each case scenario.

Not only are many of these farm families concerned about making enough money to keep the farm business going, but most are also concerned that multiple family members are dependent on the farm's success as a source of household income. Labor wages, ownership share payments, and the retirement of the senior generation are a few ways that these farm family

households are financially dependent on the farm. Table 4 below summarizes the financial dependence that each family has on their farm:

Table 4 Household financial dependence on family farm operation

Case Scenario	Number Households Financially Dependent on Farm	Existence of Additional Off-Farm Income*	Family Member Who Provides Off-Farm Income	Alternative Means of Generating Additional Cash Flow on Farm
1	2	Yes	Wife of Younger Generation	
2	2	Previously yes, but not currently	Wife of Younger Generation	
3	1	Yes	Wife of Sole Owner	Timber Sales
4	5	Yes	Spouses of Younger Generation	
5	2	Yes	Wife of Younger Generation	
6	3	Yes	Spouses of Younger Generation	
7	1	Yes	Wife of Senior Generation	
8	0	Yes	Mother and Son	Timber Sales
9	5	Yes	Spouses of Younger Generation	

**Note:* The number of households financially dependent on the farm refers to the farm family generations involved. Some participants identified hired labor as being financially dependent on the farm. This is true. However, for the purposes of this analysis, we are only considering households with past or present ownership of the farm business.

All nine families reported having some type of additional income, whether it is a contribution from a spouse's off-farm job, a second business operated by the farm owner, or an off-farm career held by an adult child still living in the household. Farmer 3 said, *"If I didn't have a wife who worked off the farm, I honestly don't know how we would still be here farming right now."* Farmer 7, who milks less than 50 cows and is planning to retire soon, said, *"My dad always explained that our family's farm was really a hobby farm, not a productive business. He said it wasn't suited for modern agriculture, and now I understand why he said that. Today, I find myself telling my son, who is 40 years old and wishes to take over the farm, the same thing. There's no way that his family of four children can be 100% financially dependent on the farm. He and his wife will most likely both need to have off-farm jobs to support the household."* Two

of the farmers also identified logging and selling timber as a means for generating extra cash flow for the farm, especially during financially challenging times. Relating to problems with generating enough cash flow, Farmer 5 said, *“You know what needs to happen to make cash flow on the farm, but the thought of all the extra work and possibly taking on even more debt without certainty that it will pay off in the long run is overwhelming.”* Ultimately, additional cash flow comes from the increased sale of goods or services provided by the farm. For dairy farmers, the only way to increase milk production once your herd reaches a peak in per-cow production is to grow the herd size; and often, growing the milking herd involves significant capital investments. This means, in effort to generate more future cash flows, capital investments in livestock must be made with hopes that it will one day pay off; though that is never a guarantee.

Farmer 8 said, *“Family businesses do not have the capacity for screw-ups. Farmers used to get away with making mistakes and learning from them, but now there’s no room for any error in the operation. All mistakes made eventually come back to negatively affecting the checkbook, which is exactly why such mistakes can’t happen.”* This statement explains how tightly budgeted Pennsylvania dairy farms can be, and it stresses the importance of the younger generation being seriously focused with a proactive mindset as they enter the business.

Multiple participants identified balancing retirement of the senior generation, continuation of routine farm operations, and the support of additional family members in the younger generation entering the business as a serious concern. Farmer 7 raised the question, *“How do you sell the farm to a child at a price they can afford and still have enough to retire on?”* This farmer followed up by saying, *“If you sell the farm outside the family, it’s simple; you try to get all you can for selling the farm. But, when you’re considering how to pass it down in*

the family in a manner that's affordable, you have to develop a plan that's affordable for everyone – and that can get very difficult.”

For Farmer 8, who has been through transitions following the death of her in-laws and another following the unexpected death of her husband several years later, discussed the financial and emotional challenges she faced regarding the aftermath of those two situations. Regarding the experience she and her husband had when dealing with her husband's siblings and the balance between financial decisions and the management of those relationships she said, *“The common problem associated with transitioning the farm after the principal owner's death is that those remaining family members who were never directly involved with the farm on a daily basis only see the dollar signs. Depending on how the distribution of the farm assets are done, those uninvolved family members can get very upset if they don't think they got an “equal share” of the farm value. But, the reality is those family members were never around to build the farm up to be what it's worth, and it can be quite a challenge to have that conversation, especially right after the death of a loved one.”* Disagreements among family members about money is not uncommon for Pennsylvania dairy farmers to experience. For this reason, it's particularly helpful to have a third-party facilitator involved in such discussions.

Regarding the challenges Farmer 8 faced after her husband suddenly died, she said, *“We were in a good enough position financially prior to my husband's death that making the numbers work on our financial statements wasn't a total hardship. His life insurance policy was also a very big help to our financial position, which ultimately cut down some of the grief and stress our family experienced. With that said, I can't imagine how much worse our situation would have been if our farm had been in a terrible financial situation at that time when everything else was a mess.”*

After the death of Farmer 3's uncle, his aunt wanted to be bought out of the partnership so she could move off the farm. Farmer 3 said, "*It was very hard for my aunt to stay on the farm after my uncle died, so she was content with us buying her half of the partnership out. Dealing with my uncle's death was very hard for her, so she needed to move away to help her get through.*" This exemplifies how the emotional, financial, and legal aspects of a situation are very much intertwined. In this case, the separation seemed to be fairly simple, but for many farm families it can be nearly impossible to overcome such challenges.

Emotional ties to control over the farm's finances were identified as a major challenge by several farmers who have successfully taken over from the senior generation. For Farmer 5, this was one of the biggest transitional challenges they faced. Farmer 5 said it took many years and the emergence of mental health issues for the senior generation before the younger generation finally gained full control over the farm's finances. Farmer 3 said he joined the partnership with his father following his uncle's death. Several years later, his father was ready to retire, prompting Farmer 3 to buy out his father's half of the partnership and become the sole proprietor of the operation. Consequently, the hardest thing for his father to deal with in the transition was handing over the checkbook. Losing the financial control of the farm was really hard for the senior generation partner, and Farmer 3 knew it hurt his father to give up all of the farm's financial control; but it had to be done.

5.7 Solutions to Transitional Challenge Already Considered by the Farmer

Participants of this study have diverse levels of business transition experience. Some have been through multiple transitions, while others have only been through one. The level of preparation and planning also varies among participants, as some are in the middle of a transition plan, while others have

completed no formal planning documents. Farmer 8, who unexpectedly lost her husband several years ago, said, *“Transition planning is better to start doing sooner rather than later because you never know what's going to happen. A lot of crazy, unexpected things can happen in a day's time.”* A set of common solution themes were identified across the nine participant interviews. The following list outlines the transition solutions and existing plans already considered by the farmers who participated in this study:

- Legal Structure Preparation
- Farm Equity Transfer Preparation
- Financial Management Planning
- Operation Management Preparation
- Diversification, Business Size and Exit Options
- Age, Ability and Interest Level Considerations

Legal Structure Preparation

The legal structure of farm businesses plays a key role in transition planning. Nearly all participants referenced the legal structure of their business as they talked about the solutions they've already considered for the continuation of the farm in the future.

One of the most basic levels of legal preparation pertaining to business transitioning is the existence of living wills. Almost every participant stated the existence of a living will, and several talked about the estate plans that are also in place. In all cases, living wills existed for the senior generation. Younger generation farm owners seemed to be less prepared with living wills at this time. Farmer 6 said, *“My wife and I's living wills and estate plan is set up so the division of assets are done according to the successor children's needs for the continuation of the farm if something would happen to one of us while still holding ownership in the business.”* Farmer 8's words of advice to other farmers regarding the existence of a living will is, *“You better have a lawyer and you better be darn sure to have an existing, up-to-date living will. Without that in line, you're really going to be in trouble if something happens, because when it does, all heck breaks loose and you won't even know where to start.”* Farmer 6 appeared apprehensive about the preparation level of his parents. He said, *“I'm not totally sure what all my parents have done to prepare for when something serious issue happens, and that worries me. I've tried to ask,*

but they just tell me not to worry about it, so I'm really hoping they have living wills and stuff like that in place so I don't get some major, unexpected surprise when things happen to them someday."

Farmers 1, 5, 8 and 9 each discussed the existence of life insurance policies as an added form of protection on their farm business owners. Farmer 1 said there is some life insurance coverage on the senior generation, but most of it covers the younger generation and their spouses. Basically, the life insurance policy carried by Farmer 1 covers the owners in the same proportion that the farm ownership percentage is, like 30% of the senior generation and 40% for the younger generation, for example. Farmer 8 said her husband carried a life insurance policy on himself, which turned out to be a significant help after his unexpected death. The policy he carried was used to pay down some debts the farm still had after his death. She said, *"Some people think paying for things like life insurance are a real waste. Well, let me tell you; when something catastrophic happens and you find yourself using that insurance you've been paying on, you'll be thankful you had it and it most certainly won't be viewed as a waste."* Farmer 9 said that all owners of the business have life insurance policies on them.

Looking forward to how the farm will be transferred from her to her son after she retires, Farmer 8 said, *"Right now, a living will exist and my son and I are Power of Attorneys for each other. There's also a trust fund set up for my daughter. We're pretty well set up legally, and now it's just about transitioning my ownership percentages to my son over the next couple years. We feel pretty good about our legal preparation."*

Several farms, especially the larger ones, have multiple business entities in place. "The structure of the business that the senior generation had set up allowed value to be more easily transferred to us kids in the younger generation while they were able to continue holding the power. Stock in the business was given out to us or bought equally across all the siblings in the younger generation, regardless of whether we wished to have direct involvement in the business or not. Buying out the non-interested siblings' shares happened after all equity was distributed," said Farmer 4. Throughout the transition process, Case

4's interested siblings decided to develop their own business entities so they could buy local farmland and facilities as they became available. Then, that new real estate was rented back to the family's corporation.

"At this point, we've got multiple business entities organized in a framework that people can understand. The one thing we haven't done yet is put a price on everything. We're waiting to see what it's worth when we get closer to retirement," said Farmer 9. Farmer 8 is in the middle of figuring out how to transfer ownership from the senior to the younger generation. She said, "Setting up an LLC was our first step to start dealing with property and land." Farmer 6, who is currently bringing in the next generation, said, *"As a solution to deciding what legal structure direction we need to take the business for the future, we signed up to do some profit team meetings this year."*

After Farmer 3's uncle died unexpectedly and decisions about the farm's ownership needed to be made, outside individuals helped the family draw contracts that included a protection agreement on the farm, stating that the younger generation had to own and operate the farm for at least 10 years before being allowed to sell it. This protected the farm from being bought at a reasonable price and automatically flipped for its true value by the younger generation. In Case 5, where the farm is very landlocked and the owners wish to continue farming in the future, Farmer 5's in-laws have an agreement in their wills that they get first chance of buying their family's farm, which is nearby, for a set price when the time comes.

Farm Equity Transfer Preparation

When it comes to the planning of farm equity transfer to the next generation, many farmers begin by transferring assets such as cows, machinery, and equipment. Often, the last thing to be transferred is the land and facilities, primarily because they are the most expensive farm assets that require more in-depth planning than the rest. Farmer 3 said, *"When I came into the partnership and then when I eventually bought my dad's half out to become the sole owner, I bought machinery and cows over time first. The land, milking parlor, and other buildings are what came later in the equity transfer process."*

Similarly, in Case 4, the current owner's grandfather structured a deal for the next generation to start buying the cows, while at the same time, a plan was formulated detailing how the land and facilities

would be handled based on the legal structure of the farm. Then when it came time to bring the current owner into the business, another similar family deal was struck, where the younger generation started by buying the cows.

Farmer 6 explained his equity transfer solution for bringing two of his children in as the next generation by saying, *“In addition to working for a couple years prior to joining the partnership, each child has purchased 10 animals so far, allowing them to have equity in their name. We’ll continue this process so that everything is eventually transferred to them and then I can retire.”*

Financial Management Planning

Much of the succession planning process relates back to protection of the financial wellbeing of the farm. “You have to start figuring out how to transition the value well in advance of the actual business management transition happening,” said Farmer 4. He also referenced the importance of continually keeping financial control of the business until the younger generation is ready and capable of taking over that aspect of the business. Thinking back to his experience of transitioning the farm business from his father to him and his brothers, he said the financial process was the most difficult part of it all. Being a large business with multiple business entities posed a challenge of finding the cheapest, safest way to make the transition to the younger generation happen.

Farmer 6 explained how his family has traditionally handled the financial aspects of transition planning, versus how he plans to handle the transition to his children in a couple years. He said, *“My grandparents made the finances work within the family, so when my parents bought the farm there was no bank involved. For some, that’s a more feasible way to do it, but for families where there’s tension or a financial need for significant and timely payments, that strategy won’t work. When my kids take over in a couple years, I want to be as reasonable as I can afford to be with them.”*

Looking forward with much uncertainty of what the future holds for his farm, Farmer 3 said, *“My farm is worth more than my debt. When it comes time for exit decisions, I can always fall back on that,*

but ideally, I want to keep it, pay off our debts, and then be able to rent the farm. Selling it would be our absolute last resort, but it is a way to make it all work out for my family financially.”

Operation Management Preparation

Farmer 9 discussed the importance of having well-organized paperwork and strategic management team. *“We make sure our books are done well and that we keep all business planning paperwork organized. Our daughter is in charge of all that and does a great job. We've got vender lists and things like that on record and organized as part of our contingency planning. Something we're trying to do now before retiring from the farm business is encouraging the younger generation to make time for collaboration and to keep the upper management team well structured. Looking forward, I think the next generation owners will need to have regular meetings and to develop a voting process so there is some sort of control across all specializations across the operation,”* said Farmer 9.

Diversification, Business Size and Exit Options

All of the farmers who participated in this study have, at one time or another, considered their options for exiting the business and transitioning it in the future. Some said they think about possible solutions to transition planning often. Farmer 7, who is ready to make a transition to the next generation but does not yet have a plan in place, said, *“I think about succession planning everyday really. I try to look at it a bunch of different ways but haven't come up with a clear way to do it. There's obviously many ways to do it, but what's the best way for everybody involved?”*

Several farmers discussed their consideration of diversification as a way for the farm to survive in the future. Farmer 4 said, *“When considering the possible solutions for transferring the farm in the future, I think the cows could come or go, but you need to have some sort of engine that supports the expense structure; whether it be cash cropping or otherwise. I ask myself often what would happen if dairy farming wasn't an option anymore. Do you remake yourself into another business?”* Farmer 1 said, *“We've considered switching from a dairy operation to a grain or other livestock operation if it came to that.”*

Since her husband died and the recent dairy industry outlook doesn't seem promising, Farmer 8 said she and her son have been thinking about building a pig barn as a way to diversify and get out of the dairy industry all together. She said, *"We've given it some serious consideration, but making that happen is at least a two-year process. There's so much to deal with pertaining to permitting and regulations, so it's a big decision and we haven't taken any action on that thought yet."*

Some transition solutions identified by farmers involve the consideration of the farm's size and productivity. Farmer 4, who runs an already large-scale operation, questioned, "Should we continue to grow and always be in debt or should we try to pay off debt and plan for exiting? And at what point do you start doing that?" He said further that figuring out how the business can support more families, especially in the industry right now is a future challenge that he has already started to consider. Even though Case 4 is a large-scale operation, they are really feeling the pressure of the milk market prices, are faced with the same uncertainties, and must make possible solution considerations, just like all the other producers.

Despite the bleak dairy industry outlook right now, Farmer 5 said he wishes to purchase some of his in-law's ground that is nearby as a way to grow because his farm is so landlocked. Even if this farmer switches to producing something other than dairy, he said the land base still needs to be there. Farmers can always get rid of farmland, but it's very hard to acquire once an opportunity comes and goes.

Farmer 8 said that selling some less-profitable farm ground is an option that she has considered. *"As an absolute last resort, we would rent our farm, but I don't want to do that unless we have no other choice because you lose control of it. And if you lose control, it's just not the same. I told my son that no matter what happens, I want our land to remain being used for some sort of agricultural production because that's what I believe it should always be. You're not putting a housing complex in the middle of good, fertile farmland. In fact, we made a call to the Pennsylvania Department of Agriculture to put some of our land in the Farmland Preservation Program. That's a two-year process, but at least it will always be protected,"* said Farmer 8.

The Farmland Preservation Program is a program that allows farmers to permanently preserve their land for agricultural production. It works to assure Pennsylvania farmers that their farmland will continue for generations to come. The program is a partnership between all levels of government and non-profit organizations - with a common goal of saving prime farmland. Pennsylvania leads the nation in the number of farms and acres permanently preserved for agricultural production (Pennsylvania Department of Agriculture – 2).

Several other farmers discussed participation in the Farmland Preservation Program, as well as other state and national programs, like Clean and Green. Clean and Green is a tax assessment program enacted by The Pennsylvania General Assembly in 1974 as a tool to encourage protection of the Commonwealth's valuable farmland, forestland and open spaces. Currently, more than 9.3 million acres are enrolled statewide (Pennsylvania Department of Agriculture – 1).

Age, Ability, and Interest Considerations

As farmers consider their options relating to business succession, many of them consider their age, the younger generation's age, the interest in ownership of the younger generation, and the ability of the younger generation to be successful in the future as determinants impacting transition plans. *"I'm in my late 40's now. I don't want to be here when I'm 65, 75, or 85 and doing the same thing I am now, so I keep that in mind when I think about how and when to bring in the next generation,"* said Farmer 4.

Farmer 9 said, *"The younger generation was in their 30s and 40s when we brought them into the business, maybe even a little younger. I think that's a pretty typical age for the younger generation to become legally involved in the business."* In Case 9, the senior generation is almost 70 years old. Their plan is to completely exit the business in the next few years have everything passed down to the younger generation. *"However, as we make our exit from the farm, I want some sort of system developed that details how the next generation can and cannot enter the business and have it all on paper. I don't want conflict among the younger generation and all of their children. I'm always considering solutions to how the next generation can avoid tension."*

Farmer 9 said he thinks it would actually be a good idea for the younger generation's children who express an interest in joining the business to first go to college or work off the farm for several years in order to really think about what they want to do long-term. When asked about the interest level of the prospective successors, Farmer 1 said, *"I told my kids that they don't necessarily have to come back to the farm and milk cows. There's a lot of supporting businesses that work with dairy farms, like milk hauling, crop spraying, field planting, or custom harvesting. The next generation could always look into starting up their own business within ours to become more vertically integrated, self-sufficient and provide a service for other farmers. With that said, I'm sure there will be an opportunity to join the business if that's what they really wish to pursue."* In the Case of Farmer 6, there is a two-year agreement, where the younger generation must work on the farm as regular employees prior to entering the partnership. *"We have a two-year transition plan in place for how we'll bring two of our kids into the business. Right now, there's nothing in writing and they are not in the partnership yet. They have to work as employees for two years to make sure it's what they really want to do and to make sure they can make it work before we transfer any equity or assets over,"* said Farmer 6. Farmer 4 said he and his siblings were not allowed to buy the corporation from the senior generation until the senior generation was sure the younger generation could handle it. *"We ran the farm for about five years to prove to the senior generation that we could do it. After that, the senior generation basically retired once the younger generation bought the farm business,"* said Farmer 4.

5.8 Determinants of Pennsylvania Dairy Farmers' Exit Decisions

The physical and mental challenges that farmers face as they consider retirement play a significant role in their industry exit decisions. Pennsylvania dairy farmers who are at or approaching the age of retirement have much to consider regarding their exit decisions. Participants in this study brought many different perspectives on issues associated with

retirement. Farmer 6 said he never really had the opportunity to go on vacation because he was always busy with the farm, so he's really looking forward to enjoying retirement with his wife. The senior generation in case scenario 4 retired at the age of 66 and stopped coming to work all together, an extreme approach for many farmers to accomplish, but he had another business other than the farm that occupied his time. Other participants had a less-optimistic outlook on the idea of retiring. Farmer 8, who has always worked an off-farm job and had to deal with the death of her husband several years ago, said, *"I don't know what I'll do when I retire because I've been busy all my life between my job and the farm. I guess I'll just have to figure it out."* She went on to explain the additional challenge that widowed farmer's wives face after retirement, saying, *"I know older farmer's wives who lost their husbands and I think they have the hardest out of anyone because they don't have their husbands in addition to having nothing to do. So, they just sit around thinking about how different their lives are after the tragedies that have happened; and that can put people in a real depression. You have to find something to do and always have something to look forward to. If you don't have that, the grief of a crisis on top of exiting the industry can be terrible."*

Making industry exit decisions can be quite upsetting for farmers who want to keep farming but are losing the physical ability to continue the job. Farmer 7 explained, *"There's things I love about farming that I'd like to keep doing, but my body is telling me that farming every day is about over. There's a good many farmers in my position. We're all faced with the same retirement challenges, like physically not being able to do the job anymore."* The younger generation in Case 4 mentioned that he's seen farmers struggle emotionally with just walking away from the business they've worked so hard all their lives to build up, whether it's sold to the next generation or someone else.

Having the right timing between the younger and senior generations is a key factor for many farmers as they consider how and when to exit the industry. Farmer 2, who is currently in the middle of a transition process, said, *“The timing is right for us at this point. The senior generation wants out at the same time as the younger generation wants in. By the time the younger generation has all the cows bought, my expected age of retirement will be about right.”* Having confidence in the next generation is another factor that determines a farmer’s exit decisions. The senior generation in Case 9 said they felt good about bringing in the next generation. They knew the younger generation was very smart and more than capable, which made decision-making easier.

The financial position of the farm was found to be a key determinant in the participants’ decisions of how and when to exit the industry. As Farmer 1 observed: *“If there’s no profitability, everything we’re talking about is irrelevant because you won’t have to manage succession. Deciding how gracefully exit the industry as the senior generation and passing it down to the next generation simply won’t be an option. And at that point, it will be a forced exit, not a planned one.”* Another farmer raised a concern about his heavy debt load and what role that will play in his industry exit options. Farmer 6 explained that he plans to ask his banker and business consultant about whether or not he should put together an exit plan so that one exists in case his financial position came to the liquidation or sell-out route. He’s highly leveraged, which concerns him in today’s industry downturn. Something else farmers must consider is the farm’s financial capacity for balancing retirement with bringing in the next generation. Some participants worried about knowing how much money they’ll need to live on if they decide to retire.

Planning for intergenerational succession as opposed to selling to someone outside the family seems to come down to feelings of tradition and pride for many farmers. Several farmers spoke with smiles on their faces about how hard they've worked to build up the farm to what it is today. Farmer 6 said that he was born and raised on the farm; working in the business since he was ten years old; and he wouldn't change anything about that. *"There's a real sense of pride I have for this place. I think that's why I never left the farm; to keep it in the family. I knew based on the senior generation's situation that if I didn't decide to take over, that would probably be the end of the family farm, and I couldn't let that happen,"* said Farmer 5. His wife agreed, saying that they're both very proud of what they have.

5.9 On-Farm Investment Behaviors Based on Level of Planning Done

The observed consensus is that on-farm investment behaviors of farmers without successors are different from those where a successor has already been identified. Three participants felt that as farmers get older, they become more averse to risk and change. For example, Farmer 6 has identified two successors who will take over from him within the next couple years. They have many facility updates and improvements on their "to-do list" and recognize the importance of those capital investments in order for the next generation to remain efficient and successful. On the other hand, Farmer 7 does not have an identified successor, so he struggles to justify spending large sums of money on much-needed facility updates.

However, many of the participants explained that their investment behaviors and adversity to risk have always fluctuated based on how the entire dairy industry is doing. With

that said, most farmers are holding off on making capital investments on the farm in the current dairy economy, whether a successor has already been identified or not.

Farmer 6, who has already identified a successor explained, *“We’ve really been wanting a new calf barn and automated calf feeders. We actually had an automated calf feeder ordered, but we had to cancel it given the current state of the industry and the financial position the industry has put us in. So, for now, those things are just on our ‘wish list’ for a later time”.*

One participant discussed the social changes surrounding investment behavior between older generations and those who are currently running farms today. *“A couple decades ago, the senior generation owners of farms did not take out near as many loans as what we, and even younger generations, do now. They never bought anything that they really couldn’t afford. Today, many young farmers are borrowing money with the uncertainty of their pay-back capacity in the future,”* said Farmer 3.

Chapter 6: Conclusions

6.1 Weaknesses in Research

In total, nine semi-structured interviews were conducted with adult members of families operating the nine Case farms. Respondents ranged in age from early 30s to nearly 70 years old. Because the sample size of this study is so small, this non-representative group of respondents should not be used to generalize the larger Pennsylvania dairy farm family population. However, the findings of this study do provide insights into groups with similar characteristics to those of the sample population, and it is fair to say that many, if not all, dairy farmers will find some observations here that may be applied to their own situation. Despite the many positive aspects of this study, there are a number of weaknesses. Data collected is based on very few points of view for each case scenario. This study did not allow the opportunity to interview multiple generations, which would have provided additional perspectives, diversity in concerns and challenges, and potentially a differentiation of goals for the future of the farm. For example, some interviews included a father and son, while others included only one individual from the senior generation. Additionally, many of the participants were located in a similar area of the state, not allowing for as much diversity as there might have been if the participants were further dispersed. The current downturn existing in the Pennsylvania dairy industry regarding milk market prices must also be seen as having a significant impact on the data collected. When discussing the various challenges, the participants face, all nine of them emphasized the many problems caused by the industry's economic downturn. Had the data been collected during a time when financial pressures were not such an issue, the results may have been different...the tone of much discussion most assuredly would have been. This research was designed to be

strictly an interview-based collection of case studies, which means the study provided only self-reported data on each of the respondents. Unlike single-firm case studies, only a very limited amount of firm data was collected and no individual farm was analyzed against the overall industry. That was not our objective in interpreting what is both a cultural and financial decision for farm families. The interview content was subjective in nature, leaving much room for misinterpretations and accidental assumptions to be made by both the subjects hearing the questions and the researcher interpreting their answers. A weakness of this study may be a lack of diversity in major shocks endured by each farm family. Many of the participants had not experienced a major shock to the business (death, divorce, injury, etc). Had there been a larger sample size and more time to seek increased diversity among participants, perhaps the results would be different. On the other hand, it is fair to assert that the majority of generational farm business transfers is not driven by shocks and we will have provided information to those families also.

6.2 Findings

Through in-depth interviews with nine Pennsylvania dairy farm families, this study has documented and interpreted the business and social concerns of dairy farm families as they address aging or other life-changes that affect their plans for transitioning out of the industry. As a result, the research was able to draw conclusions about how Pennsylvania dairy industry experts can work to better serve farm families. The primary conclusions made by the researcher include recommendations for the development of new succession planning material and service

resources, along with the identification of subject areas where industry experts may need to focus their efforts.

Extension educators, financial advisors, business consultants and other industry experts who work with Pennsylvania dairy farm families to develop succession plans need to understand the unique challenges faced by each business. Additionally, these individuals need to provide assistance in solving those business challenges and other inherent issues in the family business, which will ultimately allow the farm business owners to make succession planning decisions more easily. Consequences of having no plan in place can have a serious negative impact on the farm's future. Some of these undesired consequences may include substantial tax obligations and legal fees, the forced running of the business by unprepared owners, family conflict, and the division or liquidation of farm assets. It is the job of both Pennsylvania industry experts and dairy farmers to work together, developing a path towards continuation and long-term success of the farm.

Development of Additional Resources

The feedback collected from each of the nine participants in this study indicated that there is a serious need for new succession planning resources. Some of the resources mentioned could be an addition to existing programs/materials, or the development of entirely new resources. The following list outlines the primary topics and forms of additional resources that are needed to help Pennsylvania dairy farmers as they deal with succession planning:

- Tax laws and estate planning updates
- Improved financial advising
- Contingency planning materials and services
- Peer groups, panel discussions, mentor programs and videos

- Counselling, communication advising, and emotional and stress management
- Determining who should be your trusted advisor

Each of the nine participants in this study expressed a need for new resources that would be useful to them as they navigate their way through the succession planning and transition processes. Several farmers expressed a need for an extension educator or other industry professional, versed in tax laws as they relate to estate planning, who can visit with farmers and host sessions to help them stay updated on what's going on. Four other farmers also listed tax law updates as something that would be useful to them in the planning process. *"Having a way to stay up to date with tax law changes and capital gains updates would be very helpful so we don't get a major surprise after plans are already in place"*, said Farmer 7.

Three farmers spent time explaining the challenges they've faced regarding financial planning, and what resources would be useful to them in the future. *"A lot of bankers we talk to say they can make the numbers work, even if's a long stretch. I think we need more questioning from the banks and our other advisors as they work with us on making big decisions. Often, I feel that our financial advisors don't get us to think critically enough,"* said Farmer 3. Farmer 5 discussed the importance of having a financial analyst sit down with the younger generation prior to them legally joining the business to assess the farm's situation and allow them to ask questions. *Farmer 5 said, "When we entered the business, we were so young and afraid to ask the senior generation questions about the farm's financial situation. Even if we did, we're not sure that we'd get straight, honest answers from them. So, it would be especially helpful for an analyst to sit down with the younger generation to review the farm's situation without the senior generation in the room during that time."*

Some participants in this study felt that industry experts need to spend additional time developing contingency planning materials and services to help farmers have a plan in place if

something happens to the owners or strategic employees. Farmer 5 explained, *“If something were to happen to both partners of the business at the same time, “Good luck” is all I can say. None of our daily operation procedures are written down, and if something happens to my wife, no one will know how to do the financial books for the farm.”* Making a similar point, Farmer 9 said that there could be some real issues on the farm following a catastrophic event because no employee handbook exists and there is no formal organizational chart for the variety of farm managers and owners to follow. Though these two Case farms’ examples were very different, both farmers felt concerned about not having job descriptions, vendor information, or other pertinent details regarding the farm’s daily operations written down.

The development of peer groups, panel discussion seminars, mentor programs and informational videos were mentioned highly desirable tools for Pennsylvania dairy farmers seeking succession planning resources. The development of locally led and held peer groups would seem to be greatly welcomed by farmers in the region studied. Rather than being lectured by industry experts at a one-time event, it would be especially useful for farmers to have a designated time and place to interact with peers and discuss their challenges and successes with each other. Sharing perspectives may help farmers look at their own situations in different ways, acquire new ideas and information, and allow them to help their neighbors with issues they may have faced themselves in the past.

Panel discussion events led by multiple industry experts might also be beneficial. For example, several organizations like Penn State Extension, Pennsylvania Farm Bureau, and AgChoice Farm Credit might team up to host an event featuring a variety of resources, including business consultants, accountants, lawyers, and other helpful individuals. Essentially, a panel discussion event could serve as a “one stop shop”, for the collection of information regarding

succession planning, rather than the traditional succession planning event that's often held by one organization or individual who offers only one perspective and service.

Developing a mentor program that pairs up an experienced, possibly retired farmer with a younger farmer who must plan and eventually go through his or own transition process would be something new and very useful. *"I think it would be especially helpful for the new generation of farmers coming into the industry or those who have never experienced succession planning and don't have a senior generation to look up to,"* said Farmer 9. Similarly, pairing up a retired farmer with a senior generation farmer who expects to exit the industry soon might help those senior generation farmers who "fear" life after retirement. Nearly all the participants in this study identified uncertainty about how they'll accept retirement when they finally exit the industry.

An alternative to in-person resources such as peer groups and mentor programs is the development of informational videos. These videos could serve as a way for farmers to still hear the perspectives of other farmers, but in a format that does not require them to leave the farm. Farmer 3 stated that he sees great value in peer groups and the like, but such events require taking time off the farm and some even cost money to attend; which is why many farmers often opt out of those types of opportunities.

There is a serious need for counselling in relationships and emotional challenges within farm families. Farmer 2 explained, *"If you can't get along with one another and have open, honest communication then the rest of the transition process will not go smooth – even if money isn't an issue.* Another farmer stated that family farm counselling would be helpful to make sure that everyone is on the same page. Especially when bringing in the next generation, it is critical to ensure that everyone knows what the plan is and how it is going to be accomplished. Farmer 8 said, *"We farmers need a way for all generations of the family to communicate what they want*

and how they feel. Communication can be a real roadblock in the planning process because farmers are often very reserved and struggle with articulating how they feel.” This farmer continued to explain that the involvement of a psychologist on your transition team isn’t a bad idea. The most common problem farmers face in the succession planning process is getting everyone involved to talk to each other, and that doesn’t simply happen by meeting with a lawyer or accountant who are more specialized in legalities and the numbers of a plan. Having someone experienced in counseling available to help farmers deal with all the stress and emotions they endure was noted as very important. Mental health and emotional issues are not uncommon among farmer as a result of the financial and social stresses they endure. Industry leaders should consider developing a program or service that addresses the communication facilitation, emotional, and stress management needs of farm families.

Determining who should be a farm’s trusted advisor was an issue that was discussed by several farmers who participated in this study. Each participant who discussed this concern felt that it’s becoming increasingly difficult to know who to trust. Venders and bankers often have underlying motives for wanting to do business with farmers. Farmer 6 asked, *“Who can we trust to guide us and tell us which direction will be most beneficial for our farm and family? And how do we determine who that person is.”* This is likely to be an ongoing issue looking towards the future, and a need that industry experts may find difficult to address. Nonetheless, it’s a need that’s worth further consideration, especially because farm advisors play such a critical role in how farm families deal with succession planning.

6.4 Concluding Remarks

Although this study was collected on a limited sample, there were many different perspectives, challenges, concerns, and ideas generated through this research. In effort to continue improving our understanding of transitional challenges that Pennsylvania dairy farmers face, this study should be repeated on a much larger scale. Additionally, the methods used in this research could be adapted to fit a variety of farm family producers – not just dairy. Consequently, this study could be conducted in different agricultural industries across the nation; so long as the different external factors faced are taken into account for each participant type. As mentioned in several pieces of existing literature, there are a number of similar challenges that all farm families face, no matter which production sector they are in.

Appendices

Appendix A: Key Informant Discussion Areas

The following are the core segments of the discussions that were held with the farms involved in this study. The same basic discussion areas were also used to better understand the perspectives of industry experts, such as business consultants, attorneys and agriculture organizations.

History

- How farm started
- How farm has evolved
- Challenges the farm has faced
- History of the individual's past, present, and future involvement

Planning

- Current position in process of planning
- Timeline of planning
- Identification of risk adversity

Future

- Goals for the farm in the short and long run
- What changes might need to be made for farm to progress
- Who will be managing the farm (If anyone) in 5, 10, 20 years down the road

Emotional Relationships

- 3rd party involvement in discussions
- Desires/goals for the current and future operation
- Levels of risk adversity among the key players

Communication

- Who initiates conversations
- Who is/has been involved in conversations
- Productivity of conversations held

Personal & Legal Preparation

- Existence of a living will
- Personal interest of future successor
- Personal preparation of future successor
- Identification of advisors and advisory resources

Resources Used and Needed

- What was used
- What has been most helpful
- What has been least helpful and why
- what areas should future materials focus on
- what do you still need help with

Appendix B: Participant Profiles

Case 1:

- Two-generation Pennsylvania dairy farm managed by a father and son. This farm currently milks around 3,000 cows and cultivates about 5,000 acres. Ownership is split between two households – father and son. Two households are supported by the farm with some additional off-farm income. There are multiple children who are prospective successors of the farm. A couple of the children currently help around the farm. Short term goals for this farm are to minimize capital investments and focus on efficiency. No long-term goals were identified. This farmer stated that tax laws and milk market prices will be their biggest challenge moving forward.

Case 2:

- Six-generation Pennsylvania dairy farm managed by a father and son. This farm currently milks less than 100 cows and cultivates less than 200 acres. Ownership is slowly being transferred from the father to the son. The farm currently supports 2 households with some additional off-farm income and is nearly debt-free. Short-term goals for this farm are to continue paying the bills and make it through current poor market prices. The primary long-term goal for this farm is to maintain its current herd size of 80 cows so that labor challenges are minimized. This subject stated that surviving as a small producer in today's market is his biggest problem.

Case 3:

- Five-generation Pennsylvania dairy farm managed by one individual. This farm currently milks about 100 cows and cultivates about 200 acres. The farm is solely owned by one couple with several children and carries a heavy debt load. The farm supports one household with some additional off-farm income. Short-term goals for this farm are to increase milk per cow and continue effective management. No long-term goals were identified. This subject stated that continuing to operate as a small producer in today's industry and figuring out how to pass the farm down to his kids someday are his biggest problems.

Case 4:

- Three-generation Pennsylvania dairy farm currently managed by three family members. The farm supports four households with some additional off-farm income. This farm currently milks about 2,500 cows and cultivates several thousand acres. The farm is owned by multiple family members, who each have multiple children. None of the children are currently involved in the farm operation. The short-term goal of this farm is to survive the current industry downturn. In the long-run, the owners would like to pay

down debt and look for ways to diversify the operation. Labor, demand for milk, and an unexpected death of an owner are the biggest concerns for this farm looking forward.

Case 5:

- Two-generation Pennsylvania dairy farm currently managed primarily by a husband and wife. A senior generation (parents) are still involved in some management decisions. This farm currently milks about 150 cows and cultivates about 200 acres. The couple has several children, some of who are young and interested in the farm. Financially, the farm supports the younger generation with some additional off-farm income and the retirement of the senior generation. The short-term goals of this farm are to get through the current price downturn and to consider facility updates. Long-term, this farm wishes to acquire more nearby land and gain more control of feed costs. Remaining positive during industry downturns when little money is made is the biggest concern for the owners.

Case 6:

- Three-generation Pennsylvania dairy farm currently operated by multiple family members. This farm currently milks several hundred cows and cultivates less than 500 acres. The farm is owned by a husband and wife in the farm's third generation, but two of their adult children work as employees and wish to become part-owners. The farm currently supports three households and does not have any significant capital investment plans at this time. Short-term, the farm wishes to continue setting and reaching milk production goals and work to increase efficiency. Building a new calf barn and looking into robotic milking are their long-term goals. Wondering whether this farm will be a viable operation in the future and if the farm can continue to support three families are two of the biggest concerns.

Case 7:

- Four-generation Pennsylvania dairy farm managed by a husband and wife. This farm currently milks less than 50 cows and cultivates nearly 100 acres. The couple has five adult children and none of them are currently involved with the farm. One son, who has four children of his own, has expressed an interest in taking over the farm. Financially, the farm currently supports one household with some additional off-farm income. The primary short-term goal for the owners is to retire in the next couple years. Long-term, the owners would like to see the farm remain in the family. The biggest concern expressed by this farmer is how the next generation can make enough money to keep the farm. Another concern is how to reasonably transfer ownership to one son while balancing retirement for the current generation and consideration of other children.

Case 8:

- Three-generation Pennsylvania dairy farm currently managed by a mother and son. This farm does not currently milk cows but raises heifers and cultivates less than 500 acres. The mother lost her husband unexpectedly several years ago, forcing the family to decide whether or not to continue milking cows. Financially, the farm helps to pay taxes and keep the farm around. Both the mother and son have off-farm jobs to support the household. Short-term, the mother wishes to retire from her off-farm job and transfer the ownership to her son. Additionally, they would both like to consider ways to diversify due to the current state of the milk market. Long-term, both mother and son wish for the farm to remain in the family. Most importantly, they wish for the land to continue being used for agriculture and not be developed for housing. Their biggest future concerns are changes in property tax laws and how to maintain a positive cash flow.

Case 9:

- Two-generation Pennsylvania dairy farm currently managed by six individuals. This farm currently milks about 2000 cows and cultivates about 3500 acres. Most of the current owners have multiple children, some of whom may wish to be involved in the operation in the future. Five families are currently supported by the farm in addition to some off-farm income. Short-term, the owners wish to increase cow comfort by building new transition facilities. Long-term, the owners wish to continue being involved and bring some of the next generation into the operation. They would also like to restructure their management team. The primary concern for this farm is maintaining an ability to work together and keeping a positive cash flow.

Appendix C: Important Information to be Recorded

The following is a comprehensive list of items that are important to be explained and recorded by the owner as he or she considers the planned transfer of management or sudden major shock to the farm business. These items have been expressed by multiple participants in this study as areas of particular importance when considering the daily operations on the farm, which would be prohibitive if the key person for these areas and specific duties were suddenly not present.

- Livestock care
- Crop plans
- Equipment records and tips for usage
- General farm operations
- Landlords
- Business contacts
 - Equipment dealers
 - Sale barns/livestock buyers
 - Feed dealer
 - Repair shop
 - Fertilizer dealer
 - Seed dealer
 - Custom Harvester/Planter
 - Milk inspector/Hauler
 - Veterinarian/Breeder
- Financial Team
 - Accountant
 - Tax preparer
 - Facilitator
 - Business Consultant
 - Attorney
- Family dynamics and contacts
 - Parents
 - Spouse
 - Children
 - Extended family

Important Personal information to have available:

- Doctor contact information

- Banking (Accounts, loan officer, stocks, etc.)
- Insurance (medical, auto, home, life)
- Utilities
- Legal

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EDUCATION:

The Pennsylvania State University
Schreyer Honors College; College of Agricultural Sciences
Bachelor of Science: Agribusiness Management
Minors: International Agriculture; Entrepreneurship and Innovation
Honors: Agribusiness Management

Thesis Title: *Interpreting transitional challenges faced by Pennsylvania dairy farmers and their families*

Thesis Supervisor: Stanley C. Ernst

Born and raised on my family's dairy farm in Central Pennsylvania, I have first-hand experience dealing with the many challenges Pennsylvania dairy farmers face. Following a major shock within our family's farm, my grandparents exited the industry in December 2014. I was never involved with our family's dairy business, but the challenges our family faced as exit decisions were made had an impact on my life, nonetheless. Today, I work seasonally alongside my father to manage our Fall produce business, where we produce a variety of pumpkins, gourds, squash, and Indian Corn.

RELEVANT WORK AND INTERNSHIP EXPERIENCES:

Farm Credit East, ACA, Mayville, NY *May 2017-August 2017*

- Participated as a team member to prepare income tax, payroll, and accounting services
- Accompanied staff on customer visits and learned basics of relationship management skills
- Accomplished four summer projects and presented results to the Senior Management Team

AgChoice Farm Credit Scholars Program, Mechanicsburg, PA *October 2016-Present*

- Completed business and financial management training modules online
- Collaborated with team members in a saw mill case study and presented to Board of Directors
- Networked with peers, AgChoice staff and other industry representatives

Branstetter's Autumn Produce Farm *May 2002-Present (Seasonal)*

- Managed production of one acre of Indian Corn from planting to harvest and sale
- Assisted with planting and harvesting of two acres of pumpkins, gourds and squash
- Washed, sorted and sold harvested products locally at produce auction

DelGrosso's Amusement Park, Tipton, PA *May 2010-June 2015 (Seasonal)*

Team Leader/Manager in Food Service

- Supervised a team of 6-8 associates
- Handled paperwork and money, managed inventory, and addressed customer concerns
- Communicated needs and concerns between employees and upper management

Childcare manager for M. Abraham Harpster Family, Spruce Creek, PA *May 2011-Present*

STUDY ABROAD:

Walking in the Footsteps of the Irish During the Irish Potato Famine: Examinations of New World Crops in Old World Societies, Dublin, Ireland *May 2016*

- Developed an educational seminar and coordinated a learning activity for the class
- Connected with researchers to better understand Irish agriculture and the famine
- Discussed biological and societal impacts of the Irish Potato Famine

Agricultural Issues Study in Guanajuato, Mexico *March 2016*

- Analyzed agricultural and ecological issues at local, national and international levels
- Compared and contrasted production methods of 8 different farms and 5 agribusinesses
- Discussed agricultural issues among diverse students and educated by Mexican professors

Exploring Greek Food Systems and Marketing, Perrotis College, Greece *Spring 2015*

- Compared and contrasted the United States and Greek food systems
- Presented current and historical agricultural and business practices of U.S. and Greece
- Examined how policies, institutions, and culture impact Greek ag and business strategies

HONORS:

Gamma Sigma Delta Honors Society, Penn State *April 2017-Present*
Dean's List, Penn State – *Spring 2017; Fall 2016; Spring 2016; Fall 2015; Spring 2015; Fall 2014*
Cooperative Internship Recognition Award, Northeast Cooperative Council *February, 2018*
Bronze Award, Girl Scouts *Fall 2009*

LEADERSHIP AND COLLEGIATE ACTIVITIES:

College of Agricultural Sciences Change of Campus Student Mentor *Fall 2017-Present*
Agribusiness Management/National Agri-Marketing Association Club *Fall 2016-Present*

- Secretary, Programming Chair and Recruitment Representative

International Programs Advisory Council (IPAC) *Fall 2016-Present*

- Sole Undergraduate Student Representative

College of Agricultural Sciences 2017 Scholarship and Award Banquet, Penn State *October 19, 2017*

- Publicly recognized donor support in front of an audience of 500+

Agriculture Club, Penn State Altoona *Spring 2015*

GRANTS RECEIVED:

- *Robert and Helen Wigton and Anne Wigton Wagner Memorial Scholarship in The College Of Agricultural Sciences* *2017-2018*
- *Storer Family Trustee Scholarship in Agricultural Sciences* *2017-2018*
- *Alec And Lexi Beliasov Scholarship in Agricultural Business Management* *2017-2018*
- *Albert J. Llewellyn Memorial Scholarship in The College of Agricultural Sciences* *2016-2017*
- *Barry L. And Rosemary Zoumas Trustee Scholarship* *2016-2017*
- *Harry R. And Kathleen E. Ulrich Scholarship in Agricultural Sciences* *2016-2017*
- *Schreyer Honors College International Travel Grant for Ireland* *May 2016*
- *Diane Blanton for her Global Opportunities (GO!) Award for travel to Ireland* *May 2016*
- *Schreyer Honors College International Travel Grant for Mexico* *March 2016*
 - *GOTCHA! Funds for International Experiences for travel to Mexico*
March 2