

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

A Beginning Farmer and Rancher Community Learning Network in the Greater Richmond Area: Program Development and Initial Evaluation

Program Development Project

Charlotte Maxwell

Research Applications in ALCE

ALCE 5104

Summer I 2017

Table of Contents

Introduction	1
<i>Background and Setting</i>	1
<i>Statement of the Problem</i>	1
<i>Significance of the Problem</i>	2
<i>Purpose of the Project</i>	5
<i>Project Objectives</i>	6
<i>Definition of Terms</i>	7
<i>Limitations of the Project</i>	7
<i>Basic Assumptions</i>	8
Review of Literature	9
Methodology	17
<i>Mission</i>	17
<i>Description</i>	17
<i>Evaluation Purpose Statement</i>	19
<i>Evaluation Questions</i>	20
<i>Measurement</i>	21
<i>Sample</i>	23
<i>Design</i>	25
<i>Data Management</i>	25
<i>Data Analysis</i>	26
<i>Timeline</i>	28
Results	30
Conclusion and Discussion	50
Reference List	53
Appendices	57

Chapter One

Introduction

Background and Setting

In every job sector there is a cycle of new people coming in as others retire to keep production from slowing down. The agriculture industry is subject to the same cycle to keep producing enough food for the world, but fewer new farmers are coming in and more are retiring. Since 1992, the USDA has been providing assistance to beginning farmers due to concern over the rising age of farmers (Ahearn & Newton, 2009). Beginning farmer and rancher program development has increased across the United States of America since the mid-2000s as educators, farmers and researchers continue to take advantage of the assistance offered by the USDA (Niewolny & Lillard, 2010). The Virginia Beginning Farmer and Rancher Coalition within Virginia Cooperative Extension began in 2010 and has been growing and evolving since to address this and similar concerns.

The mission of the Virginia Beginning Farmer and Rancher Coalition Program (VBFRCP), also referred to as the Coalition in this paper, and several other beginning farmer programs around the country, is to improve the opportunities available to beginning farmers and ranchers so that they may establish and sustain agricultural operations (Niewolny & Lillard, 2010). The Coalition is unique from other beginning farmer and rancher efforts across the country in that there is a diverse network of stakeholders that makes up the Coalition. The stakeholders are non-governmental organizations, Virginia Tech and Virginia State University (Virginia Land Grant universities), Virginia Cooperative Extension, farmers and local, state and federal government (Benson, Niewolny & Rudd, 2014). VBFRCP offers Whole Farm Planning

curriculum, which was developed collaboratively and now delivered with both experiential learning and classroom methods (Niewolny, 2016).

A farm mentor network is another aspect of the Coalition that intends to provide an informal educational opportunity for beginning farmers to learn from experienced farmers (Benson, Niewolny & Rudd, 2014). This mentoring network has evolved from a one on one match making experience led by farm mentor coordinators in three regions of Virginia (Southwest, Central and Northern) to informal learning- networking with a community of new farmer peers (Niewolny, 2016). The National Family Farm Coalition surveyed mentoring programs and found that creating opportunities for informal networking was the most successful strategy for mentoring over direct pairings (Mills-Nova, 2011). One model of this informal networking and peer learning that has been successful is the work of Kelli Scott, a Virginia Cooperative Extension Agent and Coalition partner in Southwest Virginia, in her facilitation of twilight farm tours for beginning farmers.

The Coalition has adapted to fit the specific needs of beginning farmers in the regions in which they are located. Around the state and country, new farmers have identified roadblocks they face and are in need of conquering that can be generalized but will vary from location to location. Since our food system depends on highly productive, well managed farmland being conserved by existing farmers and transferred over to new farmers along with a transfer of expertise and capital, beginning farmers need specific programming for a stable start (Johnson et al, 2001).

Statement of the Problem

According to the United States Department of Agriculture 2012 Census of Agriculture, the average age of farm operators has been increasing over the past thirty years, the average age

was 50.5 in 1982 (Tauer, 2017) and as of 2012, that age is 58.3 years old (USDA NASS, 2014). The world population is expected to continue to grow and the Food and Agriculture Organization (FAO) explains that the population projections show that “feeding a world population of 9.1 billion people in 2050 would require raising overall food production by some 70 percent between 2005/07 and 2050” (FAO, 2009, P.2). With the age of farmers rising and production needs increasing, the need to encourage and support new producers is evident. Currently, there is widespread training and educational programming in agriculture, but the focus of those programs is not always beginning farmer education (Niewolny & Lillard, 2010). Not only are there new farmers coming into the industry needing support, some existing farmers are switching to, or adding, a new enterprise to fill niches and need assistance with their transition to a new enterprise (Meyer, Hunter, Katchova, Lvett, Thilmany, Sullins, and Card, 2011). While there are multiple partners within the VBFRCF actively working around the state, the author identified a growing need for this programming to be brought to the Greater Richmond area.

The counties surrounding Richmond have experienced significant growth in the past decade, where population increased by 14.44% between 2000 and 2010 with an additional 13.22% growth expected by 2020 (Virginia Employment Commission, 2017). With this growth came a loss of farmland to commercial development and a bevy of off farm job opportunities. Residents of the urban areas have a demand for local foods in their food system. This is evident through grocery stores such as Wegmans who advertise supporting local farmers as well as Ellwood Thompsons and Little House Green Grocery. In 2016, National Geographic named Richmond, VA as one of the top food destination in the world and details several local food destinations (Society, N.G, n.d.).

This created a unique mix of multi-generational farms and new farmers in the same localities. To sustain both the rural characteristics of the Greater Richmond area and food production, there needed to be specific programming for these new producers. Connecting these new producers with the wisdom and community of the existing farmers is crucial to preserve the existing wealth of knowledge. Thus creating the need for a community-learning network with beginning farmers, established farm leaders and agriculture stakeholders.

Significance of the Problem

Across the United States of America, there are twice as many farmers retiring as new farmers are starting (Johnson et al, 2001). At the same time, there is a demand for local foods and niche market products that new farmers can fill. The United States Department of Agriculture has reported an eight percent increase in direct market sales from 2007 to 2012 (USDA-NASS, 2014). Seventy percent of the producers selling directly were established farmers with ten or more years of experience, leaving thirty percent of direct marketing producers to be beginning farmers (USDA-NASS, 2014). Virginia is in the top ten states for sales in direct consumer sales (USDA NASS, 2014). In Chesterfield, Goochland, Hanover and Powhatan alone there are at least sixteen farmers markets and Community Supported Agriculture (CSAs) (VDACS, n.d.). These demands could prove to be challenging to meet without new farmers and ranchers coming into the industry with the education and support needed to start a farm or ranch, or established farmers adding a new enterprise to their existing operation.

The counties targeted for this project were Chesterfield, Goochland, Hanover and Powhatan; the United States Department of Agriculture Census reveals that, combined, these counties have experienced a decrease of 90 farms between 2007 and 2012 (USDA-NASS, 2012). The land in farms in these counties has decreased by a combined 5,919 acres from 2007 to 2012

(USDA-NASS, 2012). Hanover and Powhatan are the only two counties out of the four where the acreage of land in farms has increased from 2007 to 2012 (USDA-NASS, 2012). The data does not provide an explanation for the increase in acreage of farms; a possible explanation could be an increase in farms reporting to the census or farms expanding by buying vacant farmland in the area. The 2013 Goochland Virginia Cooperative Extension Situation Analysis (Crews et al, 2015) includes a citizen explaining, “We need educated farmers with up to the minute alternative agriculture training to pass this on to the youth who inherit or purchase the property. Additionally, this will affect consumers of food in the area, and businesses associated with food production. Land and youth and wisdom of elders is not dispensable” (p.5). Beginning farmers and ranchers in the Greater Richmond Area needed exposure to this programming to increase their knowledge and skills to be successful in the industry.

Purpose of the Project

The purpose of this project was to develop a local learning network to fit the needs of beginning farmers in a portion of the Greater Richmond Area and determine its short-term outcomes. The Greater Richmond Area consists of the following counties: Amelia, Caroline, Charles City, Chesterfield, Dinwiddie, Hanover, Henrico, Goochland, King William, New Kent, Powhatan, Prince George and Sussex Counties. Chesterfield, Hanover, Goochland and Powhatan were the main areas of focus. Development of the learning network began with identifying beginning farmer and ranchers in those counties through local Virginia Cooperative Extension (VCE) Agriculture and Natural Resources (ANR) Extension Agents and other stakeholders such as Virginia Soil and Water Conservation Districts, Farm Service Agency and Farm Credit. Established farmers who could serve as informal mentors to beginning farmers and ranchers were identified through the same method. The identified established farmers are invited to

participate in events with the learning network to form connections with the beginning farmers and build bridges between the established and beginning farmer communities.

The local Extension offices were already providing educational programming to producers in their localities. However, these producers were primarily established farmers who are continuing their education to better their practices. A survey conducted in Iowa noted that beginning farmer and ranchers are looking to Extension for programming (Trede & Whitaker, 2000). Based on personal discussions with local agents, Virginia beginning farmers are also looking to VCE to provide them with educational opportunities and resources. The Greater Richmond program, which was created because of this program development project, serves as a way to hold programs specifically geared for beginning farmers and ranchers. The beginning farmer input guides the direction of the programming, along with support from established farmers in an informal mentoring capacity, to create a community-learning network. This approach involved meeting with the beginning farmers by first offering the Virginia Whole Farm Planning Module 1: Introduction to Whole Farm Planning workshop and conducting a needs assessment with the participants.

Project Objectives

The objectives for this project were to (1) develop a comprehensive beginning farmer, established farmer and stakeholder matrix; (2) connect beginning farmer and ranchers with Virginia Beginning Farmer and Rancher Coalition programming as well as established farmers to create a community learning network; (3) develop a plan of action with the beginning farmer participants based on their needs assessment; and to (4) evaluate short term outcomes of this programming.

Definition of Terms

ANR- Agriculture and Natural Resources

BFR- Beginning Farmer and Rancher

Community Learning Network- A group of agriculture minded individuals who attend educational programming together and can call on one another to share their expertise in an informal mentoring capacity.

Established Farm Leader- A farmer who is familiar with Extension programming and possesses a desire to help the next generation of farmers.

Project- The events being evaluated to inform and develop a program for Greater Richmond beginning farmers. These events include two whole farm planning classes, a needs assessment and action plan.

Program- The on-going work that will result from the project.

SET- Social Exchange Theory

USDA- United States Department of Agriculture

USDA-NIFA- United States Department of Agriculture National Institute of Food and Agriculture

VBFRCP- Virginia Beginning Farmer and Rancher Coalition Program

VCE- Virginia Cooperative Extension

Limitations of the Project

One of the limiting factors in this program development project was the uncertainty in the number of both urban and rural beginning farmer and ranchers in the Greater Richmond Area who would commit to attending programs within the VBFRCP. To maximize attendance of these project events current contacts of beginning farmers, solicitations in local newspapers, social

media outlets and Extension newsletters were utilized. Beginning farmers have consistently noted that they prefer verbal and hands-on methods of learning to print sources (Trede & Whitaker, 1998). With that learning style in mind, the class size was limited to a size of approximately 30 individuals, where hands-on learning was feasible.

Basic Assumptions

A basic assumption of this program was that all participants would be over the age of 18 with a goal of either starting a farm or ranch or sustaining their operation that is less than 10 years old. Another assumption was that all the Greater Richmond Area VCE ANR Agents, community stakeholders and VBFRC partners would be willing to promote the program.

Chapter Two

Review of Literature

There are Beginning Farmer and Rancher (BFR) programs throughout the United States. In Virginia alone, there are several active programs, including programs at Virginia State University and in Southwest and Northern Virginia. I have expanded this program into the Greater-Richmond area working with area beginning farmer to create a community learning network.

Why the Beginning Farmers

By USDA definition, a beginning farmer is someone who has been operating a farm or ranch for 10 years or less as a sole operator or working with those who have also been operating a farm or ranch for 10 years or less (Ahearn & Newton 2009). Per Ahearn and Newton (2009), the United States Department of Agriculture (USDA) has been providing assistance specifically to beginning farmers since 1992 because of the rising age of farmers and concern rising from the agricultural community about the next generation. In the past 23 years, assistance has increased and diversified to match the constantly growing and changing industry. Past legislation has contained detailed support for beginning farmers, such as the 2014 Farm Bill. The 2014 Farm Bill increased funding for the Beginning Farmers and Ranchers Development Program from \$75 million in 2008 to \$100 million in 2014 (USDA, 2014). The 2014 Farm Bill also, “Increases access to capital and supports crop insurance and risk management tools, including reducing crop insurance premiums during the first 5 years of farming” (USDA, 2014, p.2).

A diverse group of educators, farmers and researchers have been utilizing the resources created by innovative programs since the mid-2000s as evident by the growing beginning farmer and rancher developments (Niewolny & Lillard, 2010). Niewolny and Lillard (2010) outlined the

ebbs and flow of financial and policy support along with programming efforts across the state. There is widespread training and educational programs in agriculture, but the focus on adults who want to start farming is limited.

Supporting beginning farmers and ranchers is also important for the future of our food system. The food system in the United States of America is dependent on farmland being conserved and transferred to new farmers with the training, tools and resources in place to support long-term farm viability. In this transfer of land, there is also the dependency on expertise and viability to be handed down (Johnson et al, 2001). For this transfer to occur, new farmers and established farmers need to be connected, which is the main goal of this specific program being developed, and a key component of other BFR initiatives. The study done by Johnson et al (2001), also showed that new farmers require different types of programming than their established counterparts.

Although the educational programs already offered through Extension and other services can be beneficial to this group of individuals, the subject matter often assumes the attendees have the experience under their belts to transfer what they have learned to their specific operation. The typical producer attending the Goochland and Chesterfield Extension programs have already established themselves (farming for more than 10 years) and are striving to reach or maintain their version of sustainability for their operation. One cannot assume that all beginning farmers are coming from a farming background or education, thus program development, design and delivery mechanisms are needed which address varying levels of experience.

Common Needs of the Beginning Farmer

Sustainability was a buzzword in our society that has become a common theme and goal. While there are many interpretations of what sustainability means, the definition in this project

was the ability to exist into the future without depleting necessary resources such as time, money, or environmental resources but it is expected to vary for individuals (Pretty, 1995). For a beginning farmer, economic and environmental sustainability could be a make it or break it component to their start. One of the biggest challenges to overcome for beginning farmers is financial sustainability (Ahearn & Newton, 2009). Networking is also a common need for beginning farmers. Many people in the agriculture community work full time jobs in addition to trying to start their farm , resulting in time constraints which limit investment in network development. New farmer networking groups can strengthen the community and share experiences (Johnson et al, 2001). Land acquisition is a hardship for many people starting in the industry and the cost of land alone can be prohibitive (Meyer, Hunter, Katchova, Lvett, Thilmany, Sullins, and Card, 2011). Johnson et al (2001) explains that marketing can also be an area in which beginning farmers and ranchers commonly need aid. Understanding the different opportunities offered by direct and indirect market channels, which livestock/produce sales to participate in, and accurately estimating the costs of marketing can be overwhelming when starting.

The needs referenced above appear to be common subjects where help has been requested across the country and can serve as a basis of what programming to prepare initially. The needs assessment conducted by the VBFRC team in 2014 confirmed these needs in the commonwealth of Virginia. The top five priority needs for Virginia beginning farmers were financial record keeping, business planning, nutrient management and soil health, weed/pest and disease management as well as assessing and selecting market options (Benson, Niewolny & Rudd, 2014). The specific needs of the beginning farmers and ranchers in the Greater Richmond area were determined when the group was formed through a guided needs assessment discussion.

As noted by Meyer, Hunter, Katchova, Lvett, Thilmany, Sullins, and Card (2011), niches in localities can develop causing some established farmers to begin an entirely new enterprise and beginning farmers to appear to fill the niche but it might not be a typical area of need for beginning farmers across the industry. With these common needs in mind, the Greater Richmond BFRC Program is participant driven to focus on their needs and create a mentoring program in the form of a community learning network to address them.

Mentoring to Address Needs

Based on personal work experience, it has become evident that members of the agriculture community largely prefer to learn through hand on work and their peers rather than reading documents. The study by Trede and Whitaker (1998) confirms that the same learning preference will exist for beginning farmers as they have consistently preferred verbal methods of learning over print services. A group of Missouri beginning farmers and ranchers found success in a representative farm model. They had several representative farms from across the state with a panel of at least four established producers to help the beginning farmers' access risk and finances. (Zimmel & Wilcox, 2011). While their model is virtual, the same concept can be transferred to an informal mentoring program. Beginning farmers and ranchers were introduced to more experienced individuals who can work with them, in real time, to see the risks and discuss finances with them.

USDA- NIFA (2012) and Barbercheck et al (2009) refer to the significant number of women who are beginning farmers. To make sure these women feel welcome in a male dominant field, established female farmers are invited to events as they may better relate to each other. Johnson, et al (2001) found that their beginning farmer focus groups wanted some kind of social community and desired an apprenticeship type experience with an experienced farmer. This

program allows these beginning farmers to connect with someone who can relate to them, introduces them to other people in the community and potentially give them an apprenticeship like experience.

Mentoring is a relationship between two, or more, people where one is more experienced and is helping the other(s) reach a certain goal. In agriculture, this goal tends to be the mentee gaining enough knowledge and experience to farm on their own. This mentoring could take the form of on-farm training, an internship, apprenticeship, or any other method agreed upon by the mentor and mentee. In this program, mentoring takes the form of a community learning network. Beginning and established farmers are connected through Extension programming to allow for natural pairings of mentor/mentee groups.

Theoretical Framework

To develop a program that involves connecting beginning and established farmers for the Greater Richmond area Virginia Beginning Farmer and Rancher Coalition Program, the author identified Social Exchange Theory (SET) as the appropriate framework. As described by Yu (2010), the SET explains that during a social interaction there is an exchange of cost and benefits that determines if the relationship between the group or individuals will sustain. These costs may not necessarily always be tangible, but if they are less than the benefits, the relationship will continue. This theory was emphasized by the author during the project explanation during the whole farm planning class to participants so that they understand that both farmers need to be benefitting from a business partnership, mentoring relationship or friendship.

Young and Perrewé (2000) used the SET framework to assess their mentoring programs, through the lens of SET, that it is important for a variety of factors, including career and individual characteristics, to be considered when pairing a mentor with their protégé. While the

program aims to connect a beginning farmer with established farmers in the specific industry they are entering through the learning network, they will need to be compatible in personality and goals to work together. This could be accomplished through individual surveys and assessments of both beginning and established farmers and matching them together; but this program calls for a more natural selection, between the farmers of who they feel they could have a successful relationship. Time and working together will be the only way successfully determine if there is an adequate social exchange occurring.

Another key component of the SET framework that is utilized in this Metro- Richmond BFRC Program is that there is dyadic success. Yu (2010) and Young and Perrewé (2000) mention that both people in the social exchange must benefit or the exchange is not truly occurring. To ensure that the exchange is established and maintains, the participants will be asked in interviews throughout the program to describe their connection with other farmers in the community as a result of their participation in the developed program. Program benefits may be exchange of ideas, social interaction, and labor. Costs could include time and resources used. If they are having a beneficial social exchange, the program and relationships will continue; if not, the individuals may change who they interact with or stop coming to the program. The same theory will apply to the project of developing this program, if the participants are not experiencing this exchange they may choose not to participate in the community learning network.

Our project was conducted with a learning framework based on the constructs of a communities of practice (Lave, 1991) and participatory learning (Pretty, 1995). Individual learning preference was not focused on as much as how the group will learn together in a network. A participatory action research project on how farmers learn by Franz, Piercy,

Donaldson, Richard and Westbrook (2010) explained that farmers prefer hands-on, interactive learning from peers. The needs assessment conducted was used to guide how this group of individuals prefers to work together.

Pretty (1995) detailed the different types of participatory learning and this project pulled characteristics of both the functional and interactive participation types. The objectives of the project were already determined, but the participants had shared decision making in the program and set their own major goals, which fell in line with functional participation (Pretty, 1995). At the same time, the participants had control over local decisions and how resources are used through the action plan they created as a part of the project. Having control over those decisions and resources falls under interactive participation (Pretty, 1995). Pretty (1995) describes methods for alternative systems of learning and action, this project will align most closely with participatory interviewing and dialogue. Interviews, in addition to group discussions, were used during the program development process to allow individuals to answer questions directly and ensured that their voice was heard. Focus groups had the potential to be used in the developed program based on the project needs assessment results and action plan. The participants were given the opportunity to form those groups such as vegetable beginning farmers or livestock beginning farmers, but ultimately decided to remain as a mixed group of beginning farmers and determine events together through discussion. Pretty's (1995) statement that, "institutions can, therefore, improve learning by encouraging systems that develop a better awareness of information...to have a genuine commitment to participative decision making" (p.1258), aligns with the goals of this program to not only have events decided upon by the participants, but to connect the participants with pools of knowledge within the community.

Lave (1991) describes the process of learning as “a social phenomenon constituted in the experienced, lived-in world, through legitimate peripheral participation in ongoing social practice” (p.64). This situated learning occurs in communities of practice, where people learn from each other by interacting regularly and having an identity through that community (Lave, 1991). In communities of practice, “newcomers and old-timers are dependent on each other: newcomers in order to learn, and old-timers in order to carry on the community of practice” (Lave, 1991, p.74). This is a cycle that is never ending as the newcomers fill in the places of the oldcomers and new newcomers begin to learn (Lave, 1991). The same is evident in the agricultural community, whether it is an individual new to farming or a younger member of the family taking on more responsibility, new people will be coming into the community as others leave. The goal of this project was to form a learning network for beginning farmers and facilitate the formation of their community while the program will aim to aide in the connection between beginning and established farmer communities. Lave (1991) says that, “newcomers furnished with comprehensive goals, an initial view of the whole, improvising within the multiply structured field of mature practice with near peers and exemplars of mature practice...are characteristics of communities of practice that re-produce themselves successfully” (p.72). These characteristics are not evident with the short term outcomes of the project, but are expected to occur over the long term of the Greater Richmond beginning farmer program.

Chapter Three

Methodology

Mission

The mission of the Virginia Beginning Farmer and Rancher Coalition (VBFRC) Program for Greater Richmond is to develop programming that fits the needs of beginning farmers in the area. This project was focused primarily on Chesterfield, Goochland, Hanover and Powhatan residents and contributes to the larger statewide initiative. The initial mission of this project was to introduce the participants to the VBFRC Whole Farm Planning curriculum, conduct a needs assessment and create a plan of action to address those needs. The secondary mission will be to develop a learning community with new farmers and established farmers in the area. The development of this program and its evaluation helps to strengthen the agricultural community as well as increase programming offered specifically for beginning farmers by the local Virginia Cooperative Extension offices.

Description

The program for this evaluation plan aims to educate beginning farmers on whole farm planning and provide educational networking events for a combined audience of beginning and established farmers. The first evaluations focused on the short-term outcome of the project, which consisted of the whole farm planning workshops and participant needs assessment. There were two whole farm planning curriculum events offered as a part of this project. At the first event, the participants filled out an informational survey (see Appendix N), and worked through the first half of the *Virginia Whole Farm Planning: An Educational Program for Farm Startup and Development* together while discussing in groups the aspects of farm planning. The second event started with any reflections on the first half of worksheets from the previous meeting and then the beginning farmers finished the *Virginia Whole Farm Planning: An Educational*

Program for Farm Startup and Development worksheets through discussion and personal reflection. After the whole farm planning curriculum events, a meeting occurred with the Greater Richmond beginning farmer and ranchers. At this meeting, a needs assessment was conducted using the questions found in Appendix E to solidify and prioritize what the group wants to do in the future. Once the needs assessment discussion was finished, the participants created an action plan using the template in Appendix F that is now driving and informing the program.

Future program workshops, events and farm tours offered to beginning farmers will involve established farm leaders who are interested in connecting with the next generation of producers. The involvement of established farm leaders will promote the community-learning network and provide real-life application advice. These workshops, events and tours will align with the action plan compiled by the participants at the third project event. Aspects of this Greater Richmond program will pull from aspects of existing VBFRC programming in other parts of the state; specifically offering whole farm planning curriculum. There are VBFRC survey templates for evaluating programs that were edited for this project. Every Extension agent who is conducting programming may have their own method of evaluation in addition to the resource, but the group communicates on a semi-regular basis to provide updates on initiatives, successes and challenges across the state.

The stakeholders for this program include the local Virginia Cooperative Extension educators, primarily Goochland's agent who is the lead organizer of the program for the area. Beginning farmers are a major stakeholder as this program is designed for them and will develop from their input. Established farmers are also a major stakeholder because their support of the next generation is important and their experienced perspective is desired. Local agricultural organizations, including non-government agencies, who work with beginning farmers are also

stakeholders. These organizations include Monacan, James River and Hanover/Caroline Soil and Water Conservation Districts, Farm Bureau, Farm Credit, Farm Service Agency, Virginia State University Small Farm Outreach, Department of Forestry and Virginia Department of Agriculture and Consumer Services. VBFRC is also be a stakeholder as their curriculum will be used and this is a sub-program in the bigger, state-wide program.

These stakeholders are involved with aspects of program planning and evaluation throughout the life of the program. The overall goal of this program is to connect our beginning farmers with their agricultural community. This community includes the stakeholders who have services to offer to these individuals and established farmers with a wealth of knowledge and experience. The events and strategies associated with this program will adapt as input is received from the participants on their needs. Because of this, all the potential pieces of the program that have been informed by the project will be prefaced with the words “program” or “primary”. The project portions of this evaluation plan are indicated by the words “initial” or “project”.

Evaluation Purpose Statement

The initial purpose of the evaluation was to assess the whole farm planning workshop for its effectiveness and short term utilization. The next phase of evaluation was a needs assessment to drive the rest of the program, beyond this project. The third phase, which will last the life of the program is used to assess aspects of this program for their effectiveness and utilization.

The initial evaluation questions were used to assess the project of introducing the beginning farmers to whole farm planning, conducting a needs assessment and creating an action plan. The results of the project evaluations are used to inform the program development. Because the secondary goal of the program is to connect beginning farmers with established farmers and stakeholders in the community, the primary evaluation questions will regard the effectiveness of

the main efforts to reach that goal. The results of the evaluations are used for program improvement and determining short-term outcomes.

A mix of process and outcome evaluation are used throughout the program. The project evaluation pulled aspects from the participatory evaluation approach in the sense that an underlying goal of the evaluations was to increase the utilization of the results with the input of the participants and empower the participants to have more influence in the program direction. The primary evaluator was tasked with data collection and analysis, advice, planning and design (Papineau & Kiely, 1996). The program is formative in its evaluation approach as the program will be process oriented in that it will have a set purpose, but the goals will be flexible and informed by the project (Dart, Petheram, & Straw, 1998). Individual events within the program are assessed in addition to the program as a whole. Below, the initial questions were used to evaluate the program development project that was completed. The primary questions are intended to evaluate the program that has been developed as a result of the project.

Initial Questions (Project)

1. What was the change of knowledge of participants in the areas of goal setting, formulating a farm plan, resources, and the Virginia Beginning Farmer and Rancher Coalition after the whole farm planning curriculum?
2. What are the specific needs of the Greater Richmond beginning farmers?
3. How can Virginia Cooperative Extension meet the needs of the Greater Richmond beginning farmers?

Primary Questions (Program)

1. Do participants engaged in farm tours interact with and maintain contact with other farmers in the community?

2. Do participants increase their knowledge of and connection to technical resources through the Greater Richmond Beginning Farmer and Rancher program?
3. How effectively are online advertisements being implemented and utilized?

Measurement

IEQ1 had two measurements:

1. Participants received a survey at the conclusion of the whole farm planning events and were asked to rate their before and after knowledge of farm economic management. See Appendix B for this survey.
2. Interviews with participants were conducted in order to capture specific aspects of the farm economic events that improved knowledge. See Appendix D for these interview questions.

IEQ2 had 1 measurement:

1. Participants were engaged in a facilitated discussion to determine what their needs are, see Appendix E for the questions that were used to guide the conversation.

IEQ3 had 1 measurement:

1. A plan of action was created by the participants based on the needs identified in IEQ2. This plan includes events/workshops/classes they need to succeed, what they need to make those events happen and the potential budget requirements. A template for this plan can be found in Appendix F.

Primary evaluation question one (PEQ1) will have three measurements:

1. Record of attendance is taken through attendance sheets that will be filled out by the participant and compiled by the primary Extension educator. See Appendix A for example attendance sheet.
2. Interviews with participants regarding their interactions with other farmers in the community and if they have been able to maintain contact with those farmers outside of program events. These interviews will be conducted by the primary Extension educator. See Appendix H for the list of interview questions.
3. At the end of each farm visit, a survey will be administered. Each survey will ask the participant to rate their interactions with other farmers as a result of attending the farm visits. See Appendix G for this survey.

PEQ2 will have four measurements:

1. A survey will be handed out to participants at the end of the Agriculture Resource Night to capture their overall reaction of the event. See Appendix I for this survey.
2. An attendance sheet will be used to measure the number of beginning farmers in attendance. This number can later be compared to other events. See Appendix A for an example attendance sheet.
3. Interviews will be conducted with stakeholders who attended beginning farmer events in order to understand their interactions with the beginning farmers and services they have been able to provide. See Appendix J for the interview questions.
4. Interviews will be conducted with program participants regarding their interaction with service providers twice a calendar year, once in the winter and once in the summer. See Appendix K for the interview questions.

PEQ3 will have two measurements:

1. At each event, participants will be handed a survey and asked how they heard about the program. These results will be compiled to determine which methods of advertisements are reaching the most participants. See Question 1 on Appendix G for this measurement, the same questions is on each survey.
2. Stakeholders utilizing online advertisement methods will be interviewed to capture how easy they are to implement and response they received as a result if the advertisement. See Appendix L for these interview questions.

Sample

IEQ1:

The sample for the economic educational events portion of this program were the beginning farmers who participate in the classes. A convenience sample technique was used for these two whole farm planning classes. These participants were recruited to participate through online advertisements, e-mail list-servs and newspaper articles. At least six farmers were surveyed and four interviewed after the classes.

IEQ2&3:

Questions two and three were evaluated at the same time and the sample were participants at the Greater Richmond Beginning Farmer meeting. A convenience sample technique will be used. These participants came from the two whole farm planning classes. All of the available attendees participated in a facilitated needs assessment through discussion.

PEQ1:

The sample for this question will be the farmers, both beginning and established, in attendance at each farm tour. A census sample technique will be used because we will sample

from all who attended farm tours. There is an understanding that not all of the attendees will elect to participate in the interview, which may result in nonresponse bias. While this number may fluctuate, a minimum of six farmers must RSVP for the event to occur. These participants will be recruited to participate through online advertisements, e-mail list-servs and newspaper articles. Each farmer present (6+) will be surveyed and invited to interview for data collection at each farm tour, a total of 3 farm tours is anticipated. This number, 6, is a standard minimum for the leading organization (Goochland Virginia Cooperative Extension) to hold a program or event.

PEQ2:

The sample for this aspect of the program will be beginning farmers, not established farmers, in attendance and participating stakeholders. Convenience sampling will be the technique for this event as we will sample those who are present and easy to engage. These participants will be recruited to participate through online advertisements, e-mail list-servs and newspaper articles. The stakeholders will be requested to come via phone call with an e-mail follow up. At least 6 farmers will be sampled and all of the stakeholders will be interviewed.

PEQ3:

The sample for determining the effectiveness of online advertisement will be all farmers, both beginning and established, who attended the farm tours. A convenience sample technique will be used at the conclusion of the farm tours. These participants will be recruited to participate through online advertisements, e-mail list-servs and newspaper articles. At least six farmers will be sampled at each event, with an anticipated seven events. The seven main stakeholders will also be interviewed as a part of this sample over the phone or in person.

Design

The design for this evaluation plan is non-experimental with mixed methods. The interviews provide qualitative data while aspects of the surveys are quantifiable; both methods of measurement are used for all of the evaluation questions. Due to the nature of the head organization, Virginia Cooperative Extension, and how programs are typically run through the Goochland office, we did not have access to a control group or a reliable pre-test group. The evaluation questions were designed to gauge a participant's perception of how their involvement or knowledge would differ if they had not been involved with the program. In order to strengthen the validity of this non-experimental design, attendance is tracked and used to measure the level of exposure participants had to the intervention/program.

Data Management

Survey Data Management:

The surveys from the whole farm planning classes were handed out to participants by the Goochland Extension agent. These surveys were anonymous. All of the surveys were scanned into the agent's computer, saved into a program folder and then shredded. The results from the surveys were compiled into one form by question for each event in order to better analyze responses for each question.

Interview Data Management:

Interviews were conducted over the phone or in person by the Extension agent. A recording device, with the consent of the participant, was used to record exact responses during the interview. Responses were transcribed into a Word document by the Extension agent and saved in the program folder.

Attendance Sheet Management:

Attendance sheets were filled in by participants. The hard copy of the sheets were scanned into the computer and saved in the program folder by the Extension agent. A list of attendees name were put into an Excel document in order to track repeat attendees. This document was saved in the program folder.

Discussion Management:

The answers for each of the needs assessment questions in Appendix E were hand recorded at the meeting on paper and then compiled into a Word document by the Extension agent. The original recordings on paper by the participants are stored in a filing cabinet in the Virginia Cooperative Extension- Goochland office.

Action Plan Management:

The action plan created by the participants was stored in a Word document by the Extension agent and converted into a calendar for the participants as the events are scheduled. The original plan crafted at the Greater Richmond Beginning Farmer and Rancher meeting is stored at the Virginia Cooperative Extension Goochland office.

Analysis

Survey Analysis:

Surveys were analyzed by each question for the two whole farm planning classes. The questions that contained a scale were analyzed for frequencies of response. Questions that require a written response were analyzed for content and themes.

Interview Analysis:

The transcribed interviews were analyzed for content. The project interviews were analyzed for themes and compared to the short answer responses on the survey and the discussion results. Themes came from the theoretical framework focal points such as how the

farmers wanted to interact, what will make them successful and goals for the future. Each evaluation question that has an interview associated with it is analyzed separately from the project interview. Themes from the interviews were pulled out for a qualitative report for each aspect of the program.

Attendance Sheet Analysis:

The Excel document was used to analyze attendance at all events. The document had a column for the attendees name and a column for each event. Simple math was used to calculate the number of attendees at each event and the percentage of events each participant attended.

Discussion Analysis:

The discussion notes were analyzed for common themes in Microsoft Word. Themes came from the theoretical framework focal points such as how the farmers wanted to interact, what will make them successful and goals for the future. These common themes were triangulated with the whole farm planning class surveys to produce a list of needs of the participants. Examples of the discussion themes included finding an identity as a farmer, having greater access to financial resources and learning preferences.

Reporting and Utilization

The results from this evaluation were shared with the stakeholders aforementioned. The primary Extension agent will also report the program and evaluation results in the annual report for Virginia Cooperative Extension. Other agents working with VBFRC programming will receive an update of the evaluations and program during quarterly phone calls. The evaluation results are used for adjustments of the program as it develops based on participant input. Results will also be used when implementing future beginning farmer programming.

Project Timeline:

01-10-2017: Stakeholder Meeting

03-02-2017: Whole Farm Planning Class #1 will be held, an attendance sheet will be filled out and the get to know you survey in Appendix N filled out.

03-09-2017: Whole Farm Planning Class #2 will be held, an attendance sheet will be filled out and the survey in Appendix B filled out.

03-03-2017 to 03-17-2017: Interviews will be conducted with participants of the Whole Farm Planning events and transcribed; interview questions can be found in Appendix D. Survey results will also be compiled during this time.

03-23-2017: Greater Richmond Beginning Farmer Meeting, an attendance sheet will be filled out, a needs assessment conducted using Appendix E and an action plan developed using Appendix F.

6-26-2017: Project Report and Presentation to Advisory Committee

Program Events as Determined by the Project:

04-25-2017: Agriculture Resource Night; attendance sheet will be filled out, the survey in Appendix I will be filled out.

06-13-2017: Farm Tour #1 to Virginia Vegetable Company, attendance sheets will be filled out and the farm tour survey in Appendix G will be administered.

06-21-2017: Farm Visit #2 to Keenbell Farm, attendance sheets will be filled out and the farm tour survey in Appendix G will be administered.

7-21-2017: Hanover Cannery Tour; attendance sheets will be filled out and the farm tour survey in Appendix G will be administered.

8-22-2017: Farm Tour #3; attendance sheets will be filled out and the farm tour survey in Appendix G will be administered.

9-5-2017: Financial Workshop #1; attendance sheet will be filled out and a survey will be developed once topics are finalized.

9-14-2017: Financial Workshop #2; attendance sheet will be filled out and a survey will be developed once topics are finalized.

9- 25- 2017: Farm Tour #4; attendance sheets will be filled out and the farm tour survey in Appendix G will be administered.

10-26-2017: Farm Tour #5; attendance sheets will be filled out and the farm tour survey in Appendix G will be administered.

11-01-2017 to 12-01-2017: Farm Tour Interviews in Appendix H will be conducted and transcribed, survey results will be compiled by the Extension agent.

11-28-2017: Preparing Your Tractor and Farm Equipment for Winter.

12-14-2017: 2018 Action Plan Creation Meeting and Holiday Social.

Chapter 4

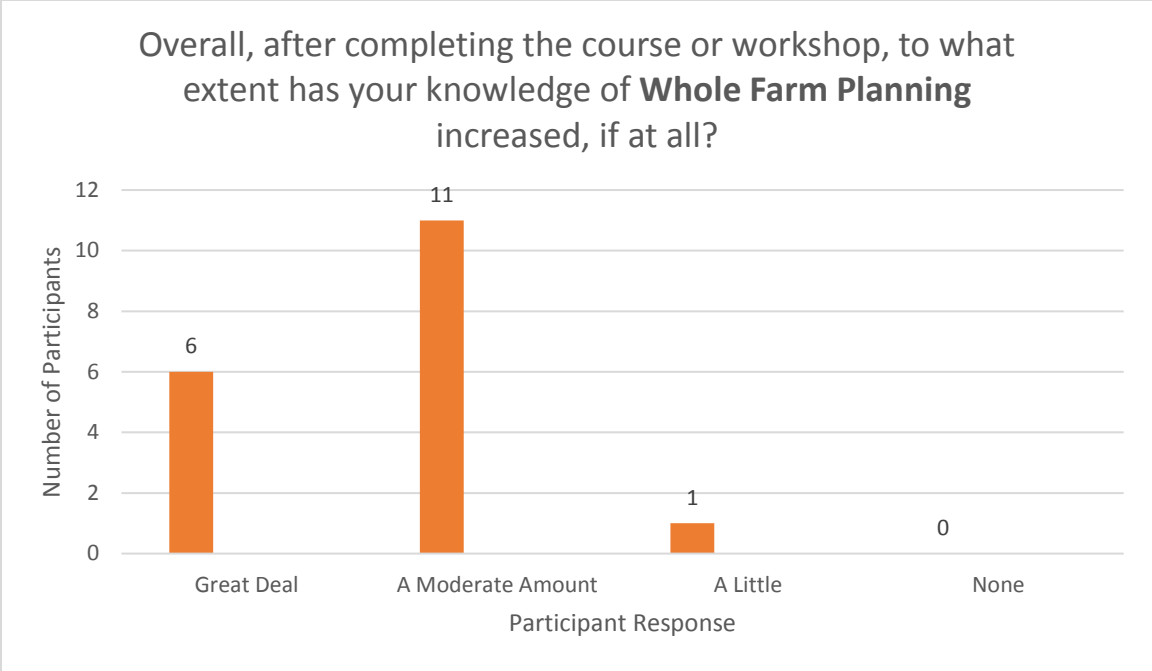
Results

The programming evaluated for this project took place between March 2nd and 23rd with three separate meetings. These results are arranged chronologically. The participants first filled out a paper survey to provide their reactions and feedback to the whole farm planning classes. At the conclusion of the classes, participants were also invited to participate in an interview. These interviews were compared to the short-answer questions on the paper survey to establish themes of learning from the classes. The participants then attended a meeting focused on discussing their needs and creating an action plan. Overall, participants were connected with other beginning farmers in the area as well as service providers to start the Greater Richmond beginning farmer and rancher community learning network. They were provided with a space to learn about whole farm planning and had the opportunity for their needs to be voiced and plan desired programming to address those needs. The specific needs of a subset of Greater Richmond beginning farmers was discovered and is helping to create more effective Virginia Cooperative Extension programming in the area for beginning farmers.

The two whole farm planning classes were advertised through Extension offices in the Greater Richmond area, service providers and social media. The main areas targeted were four of the thirteen Greater Richmond counties: Chesterfield, Goochland, Hanover and Powhatan. These counties were chosen due to their proximity to each other and past programming partnerships. The areas represented in the classes were Amelia, Buckingham, Chesterfield, Cumberland, Goochland, Henrico and Powhatan. The geographical reach of this project exceeded the expectation of the facilitators and indicated a widespread desire for beginning farmer specific programming in this part of Virginia. Attendance was tracked for the project event in order to maintain contact with the

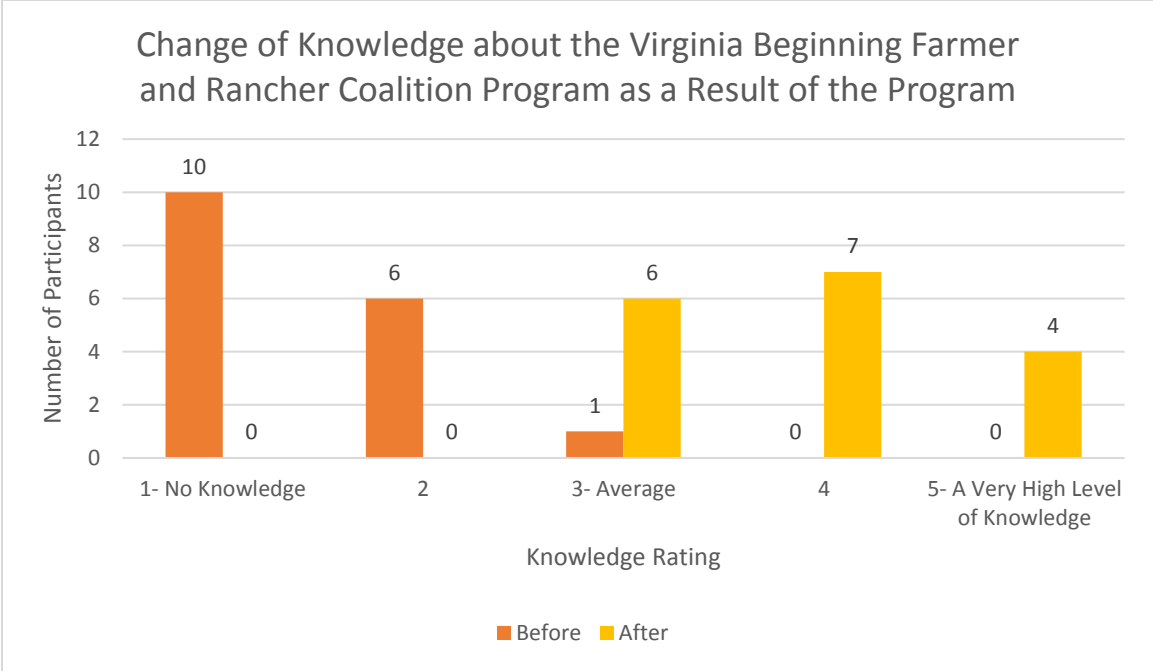
participants and determine retention. The first whole farm planning class consisted of six service providers and twenty four beginning farmers while the second class consisted of four service providers and nineteen beginning farmers. Two of the beginning farmers in the second class had not been able to attend the first class and were new. Scheduling conflicts, as indicated by the participants, was the reason for drop in attendance between the two classes.

A paper survey was available for participants at the conclusion of the second whole farm planning class in order to collect data for initial evaluation question one (IEQ1). IEQ1 was: What was the change of knowledge of participants in the areas of goal setting, formulating a farm plan, resources, and the Virginia Beginning Farmer and Rancher Coalition after the whole farm planning curriculum? There were twenty-seven beginning farmer attendees between the two classes with eighteen participating in the survey, a sixty-six percent response rate. The survey was used, first, to gauge the change in knowledge of aspects of whole farm planning and determine which practices they were already using. Graph A represents the increase of knowledge of whole farm planning as a result of participating in the classes. Sixty-one percent of participants indicated that their knowledge increased a moderate amount while thirty-three indicated that their knowledge changed a great deal.

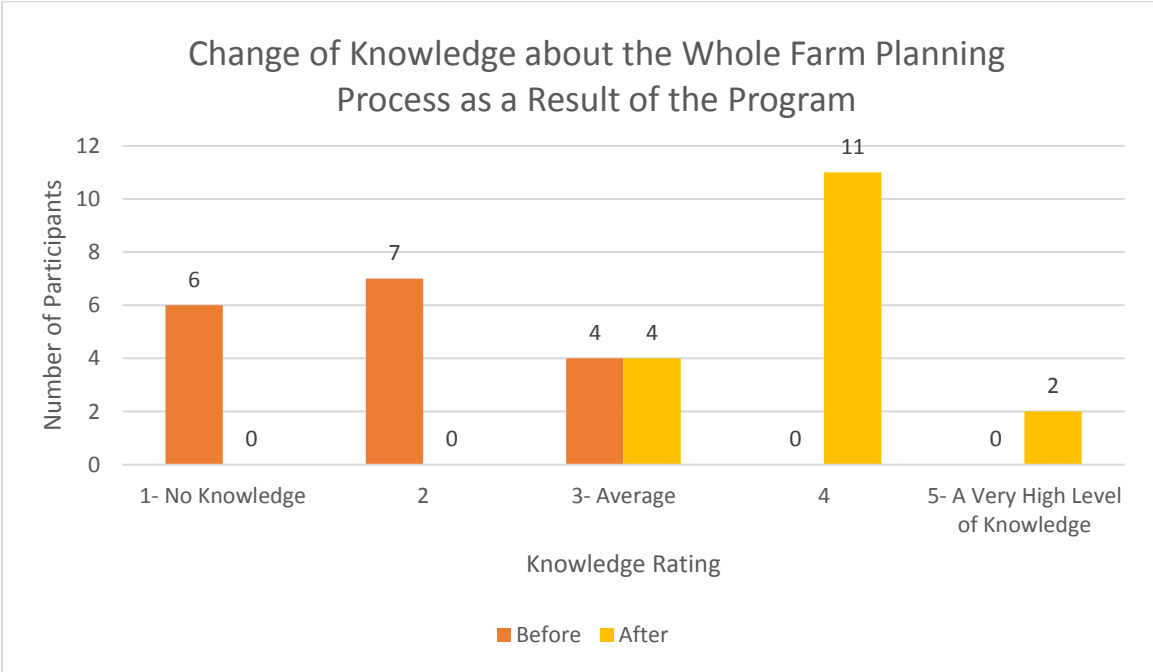


Graph A

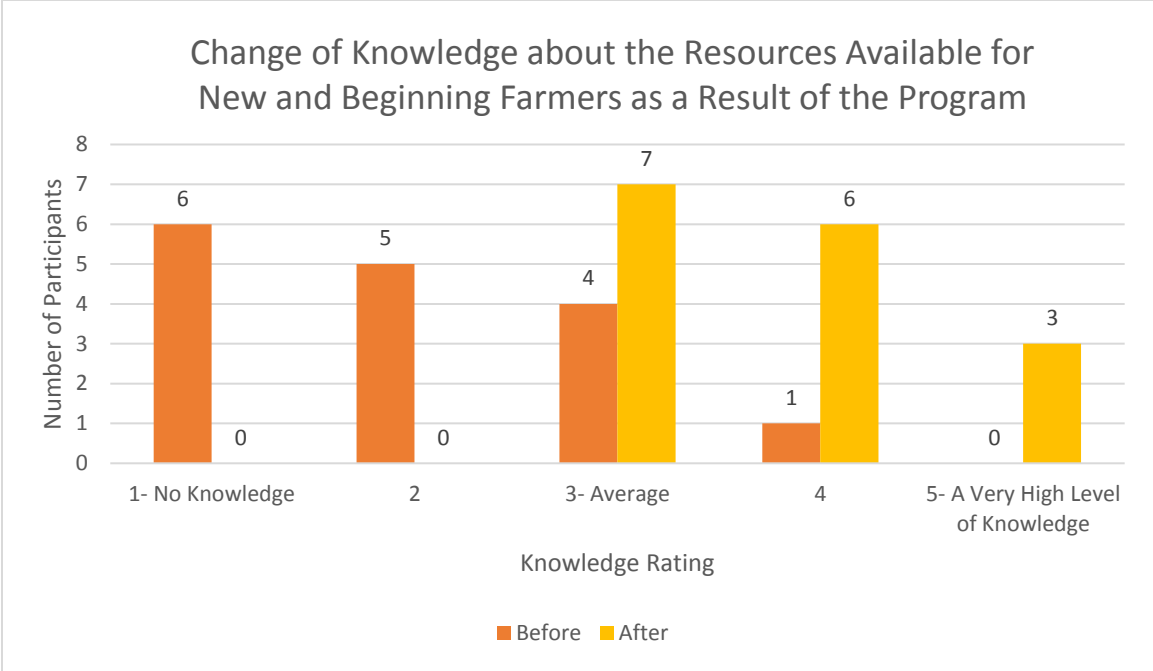
Graphs B-E illustrate the respondents change in knowledge regarding aspects of whole farm planning that the classes covered. For each of the topics, the after class knowledge ranged from average to a very high level of knowledge, with no participants leaving the class having gained no knowledge, or very little knowledge, from the class in regards to whole farm planning. Before the class, fifty percent of the respondents had no knowledge about formulating a whole farm plan and after the class, seventy-five percent of the participants noted that they had a higher, or very high level of knowledge. An area of improvement for future whole farm planning classes can be found in Graph D, regarding knowledge of resources available as a result of attending the class. The majority of respondents indicated that they had only an average increase in knowledge of this topic as a result of the class. The method of delivering this information and the amount of time dedicated to this topic will be revisited in the event the class is repeated in order to have the majority of respondents leave with a higher degree of knowledge on resources available to them.



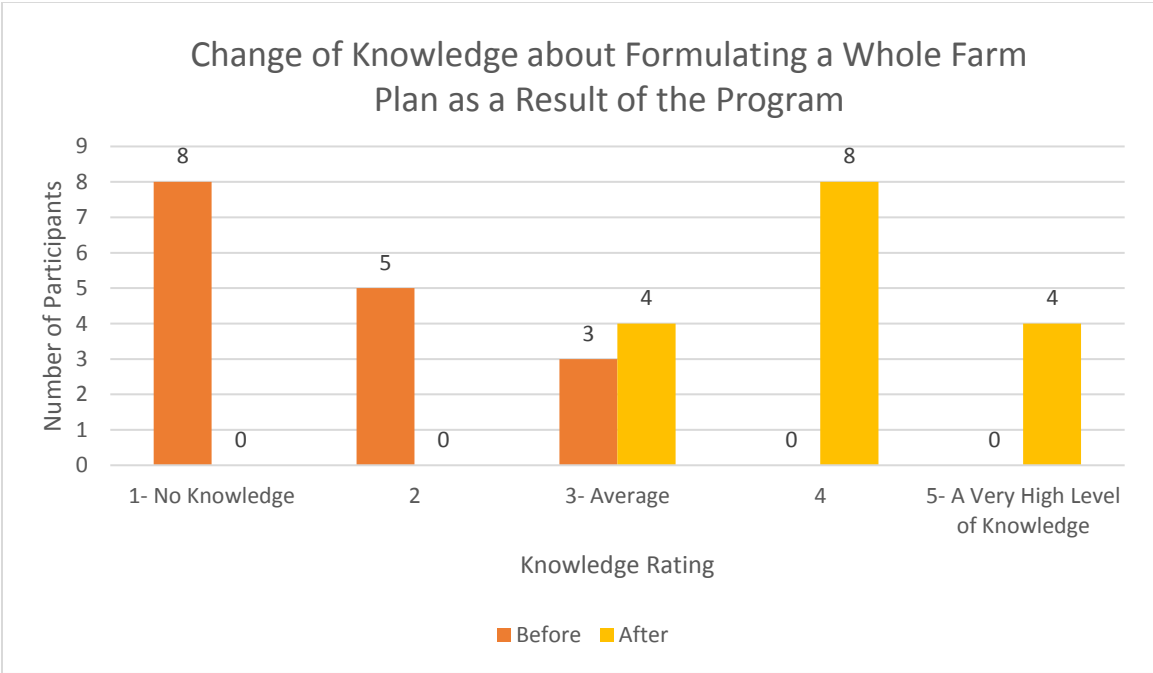
Graph B



Graph C

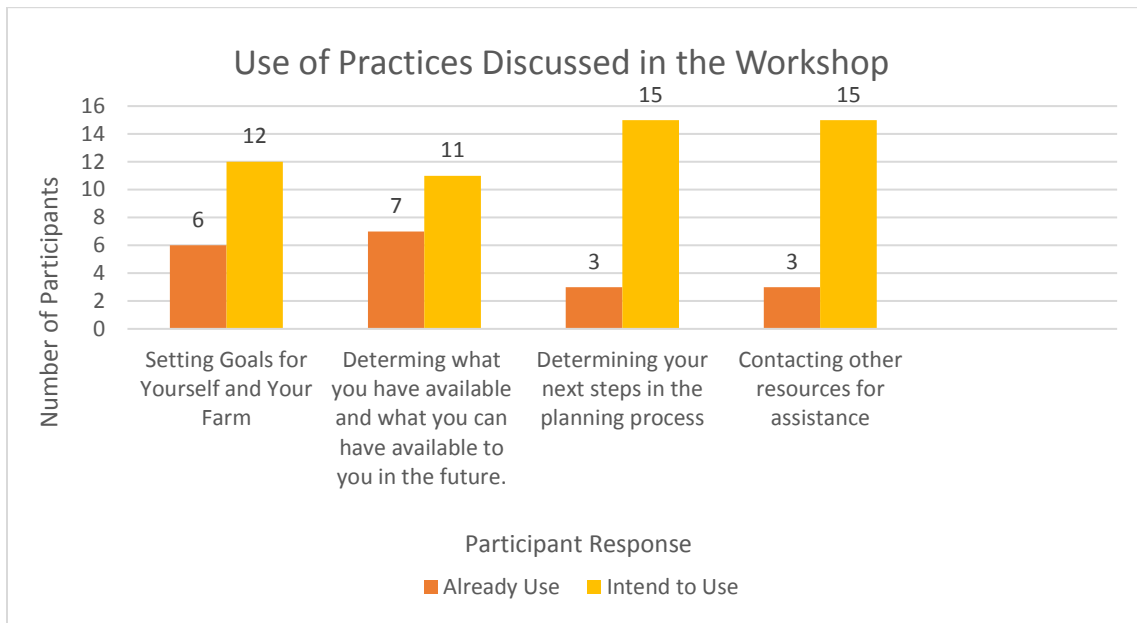


Graph D



Graph E

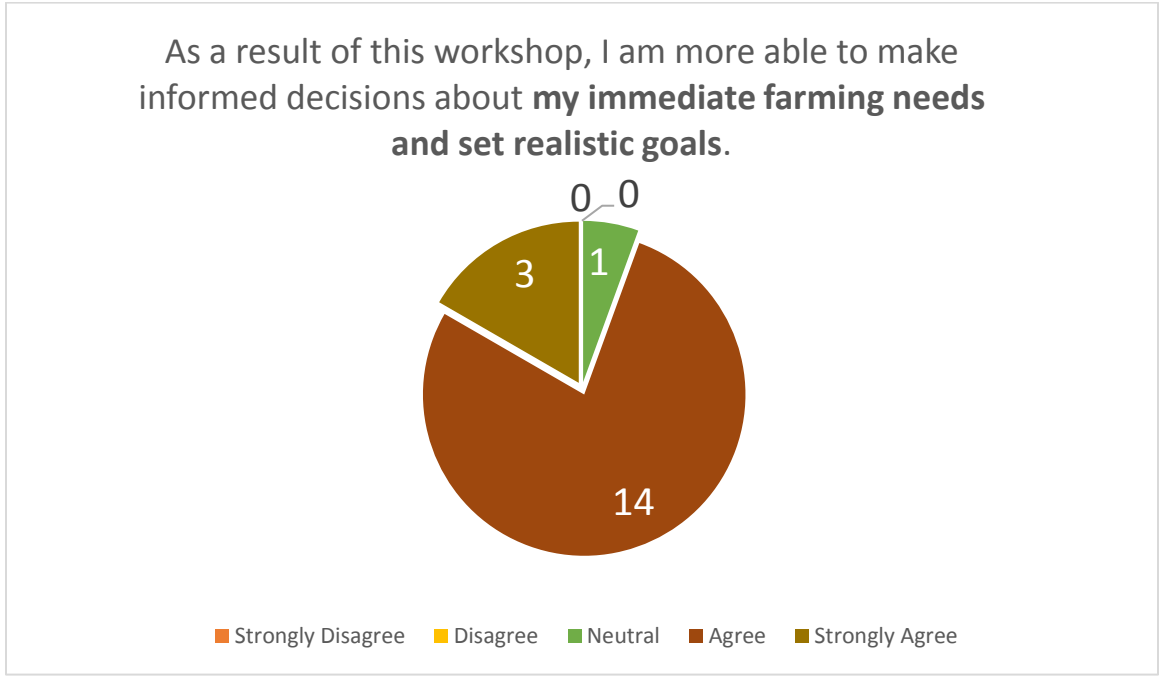
The second section of the survey focused on practices and their utilization. Graph F illustrates which practices the respondents were already using or intend to use.



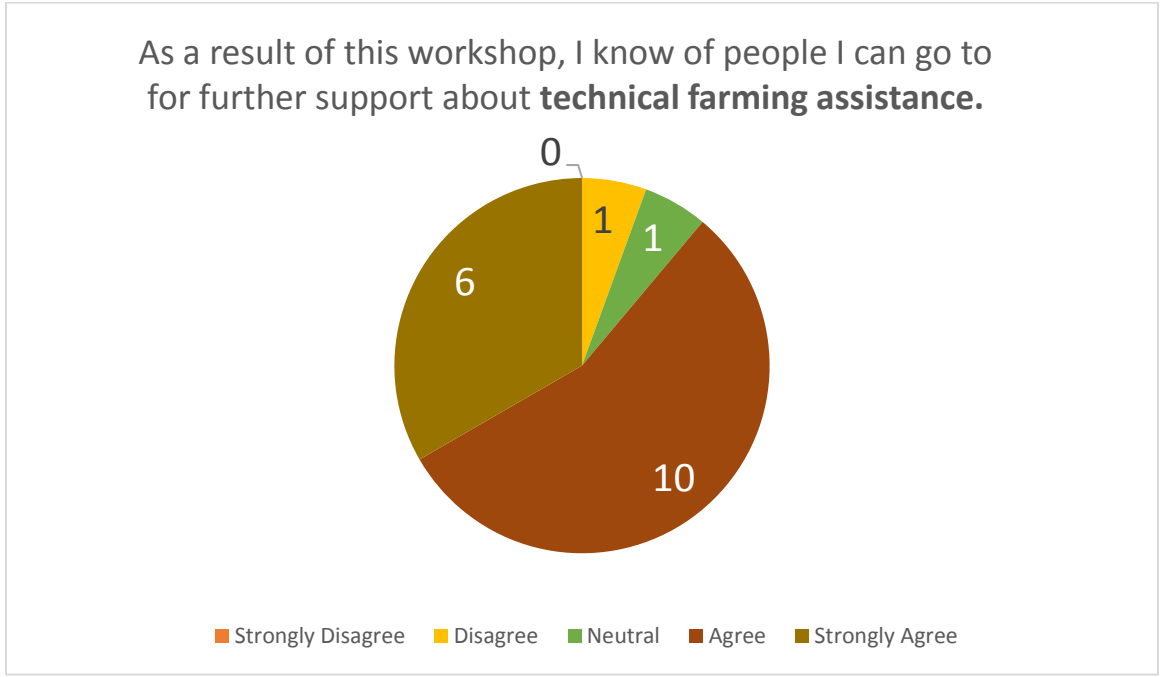
Of participants who indicated that they were already using these practices, the majority were already setting goals and determining what they had available to them and what they could have available to them in the future. Only three participants indicated that they already used the practices of determining their next steps and contacting other resources for assistance. For each practice, the majority of participants noted that they intend to use the practice because of attending the classes. Graphs G- I illustrate the participants level of agreement as to whether or not they will be more able to utilize the practices. Ninety-four percent of the respondents agreed or strongly agreed that they would be able to make informed decisions about their farming needs and set realistic goals. Eleven percent of the respondents felt neutral or disagreed that they would know of people to go to for further farming assistance while eighty-nine percent agreed or strongly agreed. Overall, the majority of respondents agreed that they now know who to go to for

Graph F

technical farming assistance and resources to access regarding creating a farm plan.

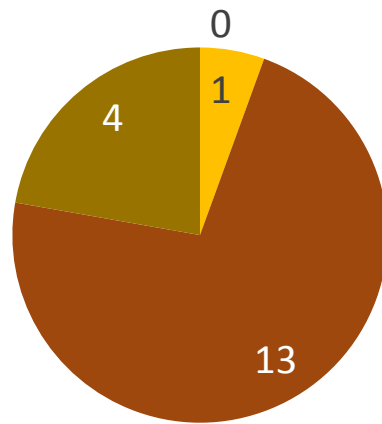


Graph G



Graph H

As a result of this workshop, I know of additional resources I can access regarding **making a plan for my farm.**



Strongly Disagree Disagree Neutral Agree Strongly Agree

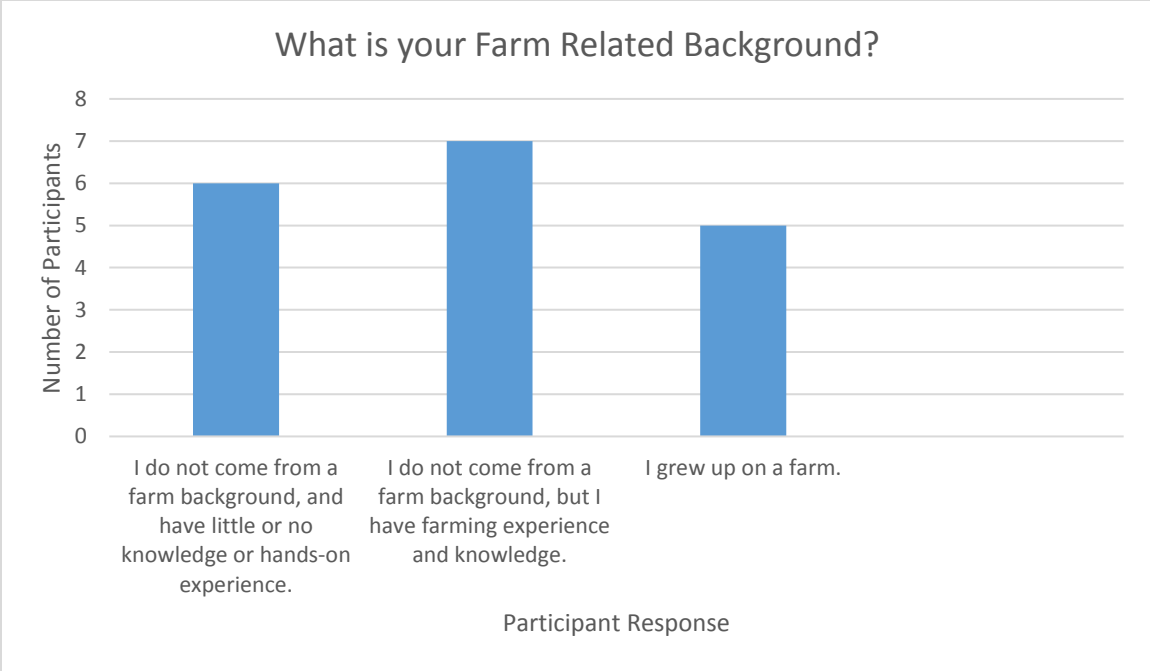
Graph I

Respondents also indicated their satisfaction with the workshop material. One hundred percent of the respondents agreed or strongly agreed that the material presented was credible and trustworthy as well as relevant and helpful. Ninety-four percent of the participants agreed or strongly agreed that the workshop met their expectations.

The next section of the survey contained short answer questions for the participants to answer regarding what was most helpful, least helpful and how they would like to move forward with the group. When asked which part of the workshop was most helpful to the needs of the participants, responses included, “direct interaction and one-on-one interaction with the extension agents” and “having to ask myself tough personal questions about family life, success, etc.” along with four respondents responding with, “resources and networking.” The participants indicated on the paper survey what parts of the workshop were least helpful for their needs. A common theme in the responses was a desire for more specific examples of farm plans and more

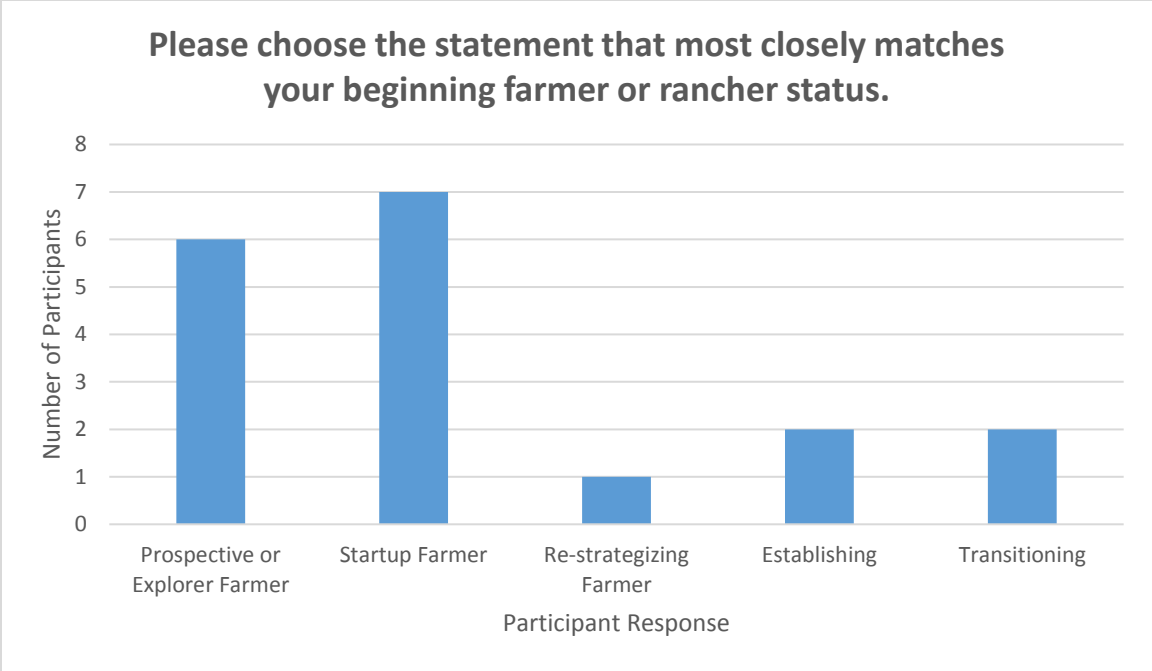
specific financial information. The survey also asked participants if they would be interested in creating a local network of beginning farmers and ranchers and how they would envision that network functioning. Fifteen of the seventeen respondents were interested in ongoing meetings in order to guide them along their next steps. One participant indicated that they would only be interested in ongoing meetings that revolved around finances. The main theme of how the network would function was to build relationships with other farmers through networking events that occurred monthly.

Graphs J-P focus on the demographics of the participants. Graph J shows that thirty-eight percent of the group did not come from a farm background, but had farming experience and knowledge while twenty-seven percent of the group grew up on the farm and thirty-three percent of the group did not have a farm background not knowledge or hands-on experience. There was not an overwhelming majority of the group identified in any one of the farm related background categories. Participants determined whether they considered themselves a limited resource, farm worker, female farmer or socially disadvantaged. Seven of the eighteen respondents answered this question. Two of the respondents selected a combination of groups such as a limited resource, female farm worker and a female farm worker. Additionally, there was one limited resource respondent, one farm worker respondent and three female farmers.

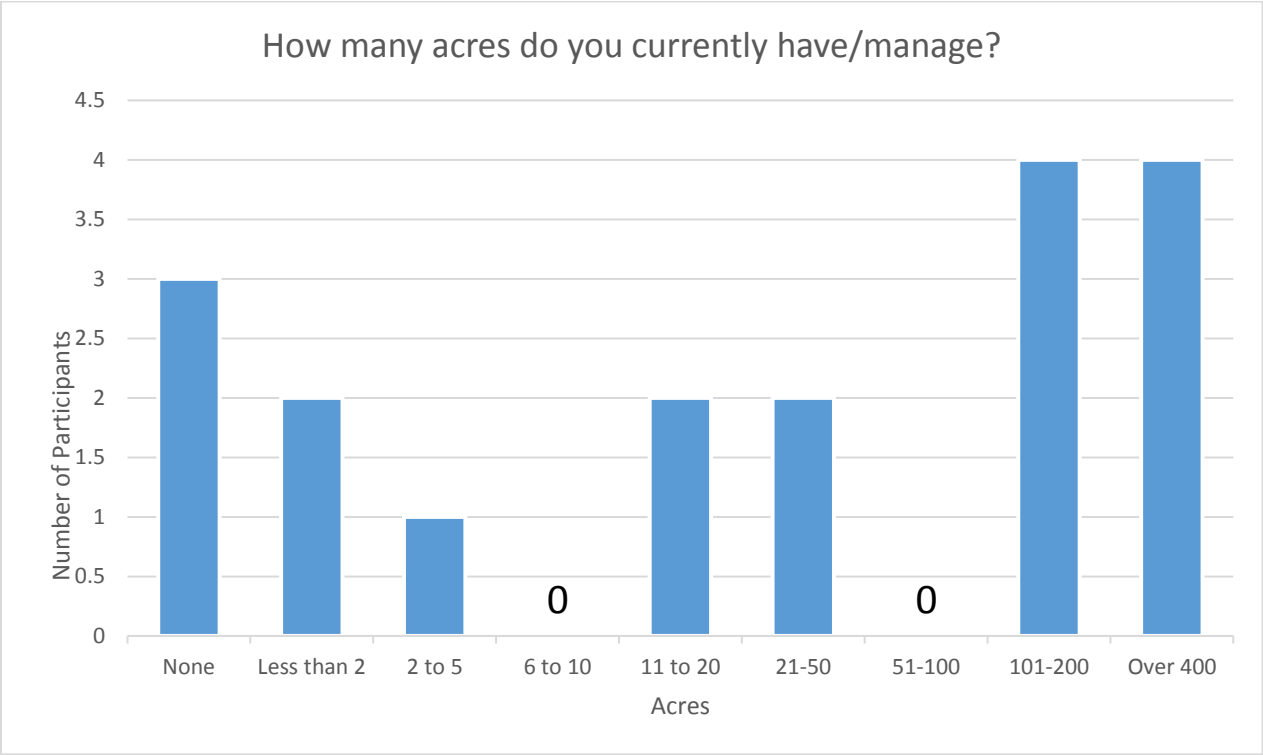


Graph J

Graph K illustrates the dispersion of farming status within the group. The majority, seventy-two percent, of the survey responses were either exploring or start-up farmers while twenty-seven percent identified as re-strategizing, establishing or transitioning. Participants also noted how many acres they currently have or manage (Graph L). 84% of the participants currently have some acreage to work with; this does not represent how many they are currently farming or if what land they have is enough for their operation.

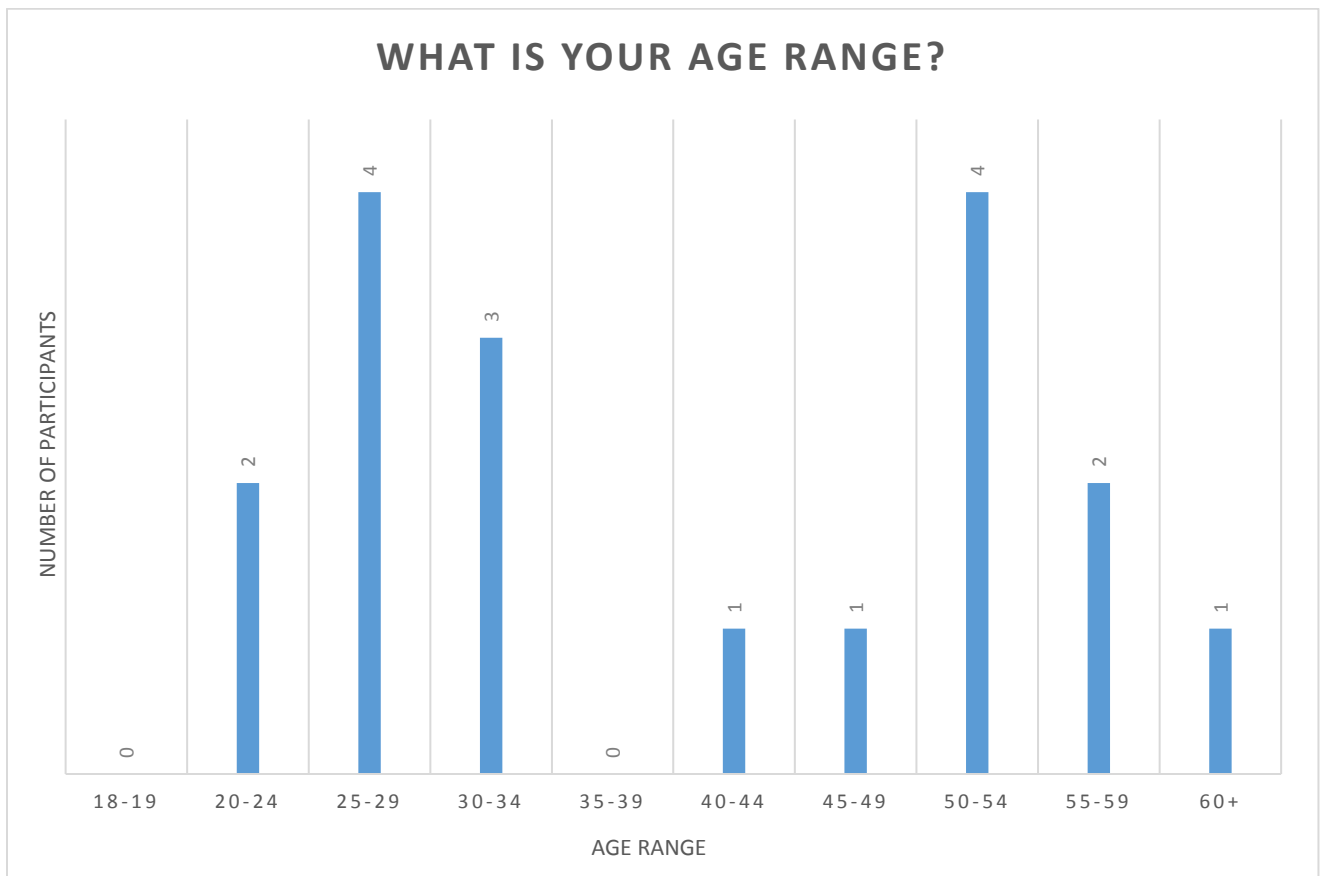


Graph K



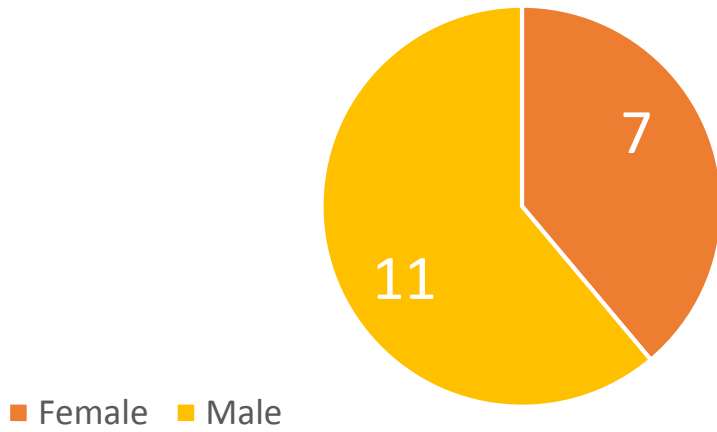
Graph L

The age range and gender of participants was also collected and can be seen in Graphs M and N. The final question of the survey was asking if the participants had taken any other VBFRC courses or workshops and 100% of the respondents responded with, “no.” The next graph (Graph O) represents the type of agriculture the participants are focusing on for their farm. The answers were diverse and most participants chose more than one type of agriculture. Overall, poultry, vegetables, beef and fruit were the top interests of the survey respondents. These enterprises of interest will be referred to when planning farm tours for the program to ensure that farms with similar interests as the participants.



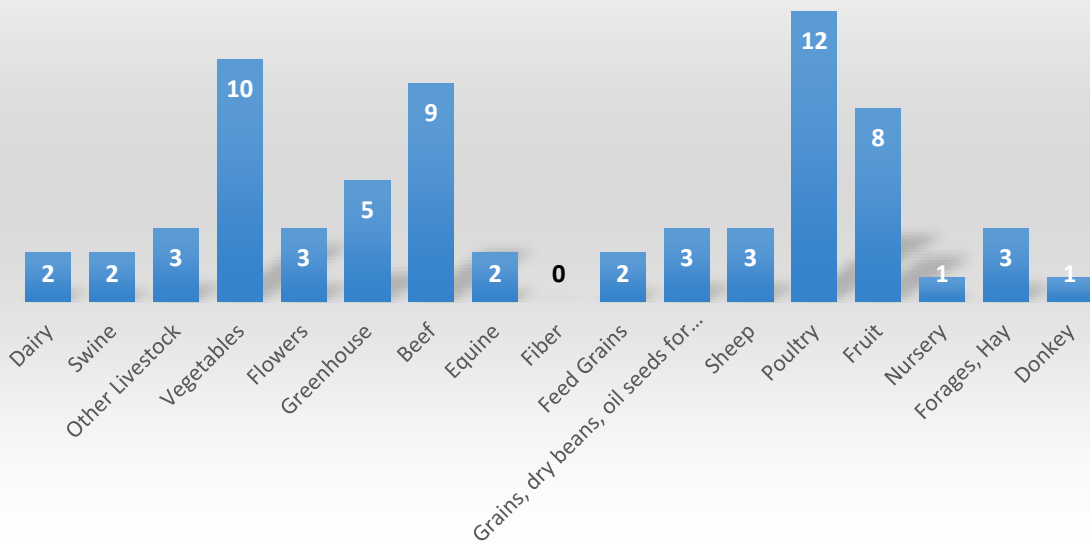
Graph M

What is your Gender?



Graph N

What type(s) of agriculture are you currently interested in/ involved with?



Graph O

After the two classes, participants were invited to participate in a brief interview to determine short-term utilization of the concepts and practices discussed. Each participant was asked the same four questions (see Appendix C) and the conversation was recorded on an audio recorder with their consent (see Appendix D). The quotations used were transcribed directly from the interview recording and not edited for grammar or speech mannerisms. Four main themes emerged from the interviews that will be used when creating events for the program.

The importance of how farm and family lives interact. The balance between living on the farm, the farm being a business and not letting the farm take over the family lifestyle goals was a focal point for the beginning farmers. This sentiment not only came up in the one-on-one interviews, but they also echo the survey responses where several respondents indicated that having to discuss and think about personal goals and lifestyle questions was most helpful to their needs. Participant 001 stated that,

there were a lot of things in there that we had never considered. A few things we had done and there was a lot of things we had never considered... all the charts we went through there was a lot in there we had never thought about.

The charts referred to in this statement are worksheets that the participants completed in the Virginia Beginning Farmer and Rancher Coalition Whole Farm Planning workbook with topics including family goal setting; assessing quality of life preferences, personal resources, land and infrastructure as well as assessing production and market preferences. Participant 003 responded with,

I think it was helpful to like reach into all the impact you have on family life and to have that coming from, you know, the Extension agency... Of course I'm going to be thinking about my own person[al] interests, family life; but to have that brought up, you know, by you guys kind of reinforced the importance of that.

Farmer to farmer connections. Each of the beginning farmers has a unique background and is in a different stage in their farming careers making their biggest takeaway from the classes

different, but gaining an appreciation for the farmer to farmer connections that can be made was a common take away.

For participant 002, learning that they were not alone in the beginning farmer process was important, “it was just nice to be around other people that did the same thing and kind of the same struggles that you go through.” Participant 003 found that the most important concept they learned was, “defining a practical definition of success. For some it’s about money, for some it’s about environmentalism.” Balance was an important takeaway for participant 004,

I guess, just in general, the concept of trying to balance way of life with you know, the profitability aspect versus your resources you know- balancing all of that stuff together. The importance of if it’s too much way of life and not enough business then you’re going to say it’s too much business and not enough way of life you’re going to get burned out. I guess that’s a good take away from it.

Refining focus and setting goals. Moving into the next steps of their farm planning process will involve a deeper look into their farm operation and what they hope to achieve for these beginning farmers. For participant 001 the future means getting more serious about their farming operation,

we’re definitely regrouping a little bit on what we’re doing and it’s kind of, ours is, more of a hobby farm and we’d like to turn it into where we could actually produce some things and make it a little more at least pay for itself, a little more profitable if you will.

Participant 001 even added that, “if you had something like this upfront that would be pretty beneficial to saving some of the guess work.” Participant 003 had already started to implement new steps in their farm planning process,

well, I’m already implementing them., in the process of starting a farm this spring anyway. But, I set some realistic but larger goals to focus on and then put other things more on the backburner so I could, you know, pursue success with certain crops and just say- you know- with other crops- get to them when I could get to them.

For participant 004, the next step in the farm planning process is, “Looking at what my situation is and where I want to be and how I can get to that point with what I’ve got, you know?”

Connection to Resources. When prompted where guidance was needed moving forward in their farm planning process a theme of resource connection emerged from this question of what areas of farming guidance is needed. For participant 001, guidance is needed on, space planning, just kind of the physical aspects of it. And you know certain needs and how you meet those needs. As far as water, that seems to be a big one. We’ve already gotten into that one. We just cleared some more land. We just cleared 2 acres in the fall and you know we’re going to be expanding the pastures and all that kind of stuff. And now it’s like, ok, what do we need to get water there and stuff... we went from living in a subdivision to 15 acres and 15 acres seems like this big fat piece of land and then as soon as you start adding a few animals and stuff on it all the sudden it’s like I can’t do anything with 15 acres I need 15 or 60 or 100.

For participant 003, clarification is needed on agriculture agencies and organization. Well, I think the thing I’m most confused about is the roles of different funding programs... There are so many agencies within the whole agriculture branch and there’s different potential for funding from different ones and loans from different ones for different things... I was so surprised once I figured out how many different groups that are out there that are genuinely offering some really good stuff and I was surprised that there’s some free stuff to be taking advantage of here, if you can sort through it all.

On the other hand, participant 004 had a more individualized take on needing future guidance on the class topics by stating, “a lot of it you gotta do on your own thinking more than someone can tell you. No one can really tell you what your goals and thoughts are on things, you’re going to have to figure that for yourself.” The input from these interview participants was used in creation of the action plan as well.

Following the two classes was a third meeting where a needs assessment was conducted and an action plan was created for the group. This meeting consisted of two service providers and six beginning farmers. A Doodle poll was used to select a date and time for this meeting and had ten beginning farmers participate, while an additional ten members from the two whole farm

planning classes asked to be kept on the e-mail list even though they would be unable to make it to the needs assessment and action plan meeting. Only twenty three percent of the beginning farmers from the two whole farm planning classes participated in the meeting while approximately eighty one percent of the participants requested to be included on all future event correspondence.

The needs assessment consisted of five questions (see Appendix E) designed to identify the specific needs of the group and discuss how those needs can drive and inform future programming through the creation of an action plan. This assessment occurred in the form of a discussion with the beginning farmers answering the questions individually and then conferring as a group what their priorities were moving forward. Seven main themes emerged from this needs assessment that will inform future program events.

Finding an identity as a farmer. The priority education needs for the participants was to learn what identifies them as a farmer by their county in terms of land use, agriculture agencies in terms of services available to them and financially in terms of taxes. The second priority that was mentioned consistently was having some kind of mentor or a group of like-minded people to talk to and learn from. Other educational needs identified include pasture management, biosecurity, basic first aid for animals, cover crops; how to acquire, maintain and safely use equipment and drainage.

Access to financial resources. A common need for the Great Richmond beginning farmer is to be connected to financial and technical resources. The first need was money in order to be successful and the participants clarified that by including the need to learn about loans, grants and cost share opportunities. Access to the agriculture agencies that provide services to the farming community was another top desire for the beginning farmers to be successful. Other

aspects that the participants described needing access to were hands-on experience, farmers that are more knowledgeable and clear guidelines on the permits, limitations and regulations of a farm business.

Learning and communication preferences. The preferred method of learning for the group was a combination of classroom and hands-on sessions in addition to interaction with people who are also farming. Readings and publications was a secondary, or back-up, desired learning method for the beginning farming group moving forward. The group discussed a desire to communicate through discussion boards and e-mails moving forward with the potential for a closed Facebook group.

Reaching five-year goals. The beginning farmers contemplated what their farm operation would look like in 2022. Self-sufficiency in the sense of not needing to work outside of the farm was a common theme amongst the participants. The participants discussed becoming a model for other farmers and eventually being the established farmers helping beginning farmers, an indicator that this project can sustain to be a long-term program. Having more time to farm, being profitable and having more land were other goals for the next five years.

After the discussion about needs, the group developed an action plan of future events in order to address the needs they had identified. Each action would include a topic, location, timeframe, monetary requirements and whether or not it would be open to the public, as in advertised for people outside of the members who attended the first two whole farm planning classes (see Appendix F).

Connecting to resources. The first event in the action plan was to address the need to learn more about the agriculture agencies and organizations in the area and the services they provide entitled an “Agriculture Resource Night”. This event would be open to the public, cost

ten dollars to cover dinner, be held in either Goochland or Powhatan in late April and involve speeches from different agriculture agencies and organizations with a question and answer panel. The target organizations to have present were Virginia Cooperative Extension, Soil and Water Conservation Districts, Farm Bureau, Farm Credit, Farm Service Agency, Virginia Department of Agriculture and Consumer Services, Virginia Department of Forestry, Virginia State University and Natural Resource Conservation.

Farm tours to build the community-learning network. Another major action plan item determined by the group was to have farm tours from May to October. The group debated amongst themselves whether to do all day Saturday tours or weekday evening tours and decided on weekday evenings to be the majority of the tours. There was also interest in doing all day tours on a Saturday to other regions of the state. Specific enterprises or type of farming on the tours was not a concern for the group, they believe there is something that can be learned even if they are not farming the same products. These farm tours will be open to the public in order to grow the agriculture community learning network and will be held in the Greater Richmond area. Cost would be determined on a tour by tour basis by the time the host farmer wanted the group there and whether a meal would be included. Tour stops of interest were diversified farms, dairies, a goat ranch and a cannery, but the participants were interested in any and all potential farm tours. The Virginia Cooperative Extension ANR agent was assigned with the job of scheduling and advertising the tours.

Gaining a better understanding of farm finances. The third action plan item planned by the group was two financial workshops. These workshops would be open to just beginning farmers and help in either August or September. The group decided to have the group open to just beginning farmers in order to keep the class size small and be able to focus on the basic

topics. One of the workshops would center on financial record keeping and best practices while the second workshop focused on farm taxes. Speakers will be brought in for this event and money set aside in order to pay for the speaker's fee, travel and lodging if necessary.

Events that were not included as a priority in the action plan included farm equipment safety and maintenance, livestock first aid and space planning. These events will be revisited with the group in the fall of 2017 towards the completion of this initial action plan. The goal with this initial action plan is to implement it and evaluate the short term outcomes and effectiveness of the events. This initial action plan will take the group through, approximately, October 2017 and then a new action plan will need to be created and implemented.

Chapter 5

Conclusion and Discussion

The results from this project show that the whole farm planning classes were effective in bringing together members of the local agriculture community to start building a network. The surveys from the two classes showed an overall increase in knowledge gain of the core topics- the Virginia Beginning Farmer and Rancher Coalition, formulating a whole farm plan, available resources and the whole farm planning process. Participants were also introduced to practices they had not been using in the past, but plan to now, such as goal setting and determining next steps. An overarching theme between the survey results, interviews and needs assessment discussion was a desire to continue networking and learning ways to improve their operations. This will be accomplished through continuing to meet as a group while also inviting in other members of the agriculture community to learn and network together.

There is room for improvement for information dissemination during the whole farm planning classes that will be taken into consideration when they are repeated. One of the suggestions for improvement that came up multiple times was for specific examples of financial requirements for certain farming enterprises which can be accomplished through providing budgets for the participants to view. Another area for improvement revolves around how resources are explained during the two classes. While the action plan calls for an agriculture resource night to address this need, having a more detailed description of service providers and resources available to farmers at the whole farm planning classes would also help. As the Greater Richmond Beginning Farmers continue to meet and pieces of the informed program are evaluated, events and methods of disseminating information will adapt to continue to meet the needs of local beginning farmers and grow the community learning network.

Recommendations for practice for the future include having general budget templates for a variety of enterprises (vegetables, beef cattle, cut flowers, etc) to provide a better understanding of the potential finances required for production. A participant who is exploring the idea of starting a farm or has limited management experience may need a base price list. Another recommendation is to include as many local service providers in the programming as possible. When specific questions arise regarding insurance, loans or cost sharing for best management practices having a qualified industry professional available provides an opportunity for participants to make that contact. Alumni of beginning farmer programs present at the initial start up meeting may also be beneficial for the participants to hear from someone who was once in their position and is now successful.

Producing food and fiber for generations to come is a necessity. Current Extension programming has a dominant audience of established producers, which is a positive, but the beginning farmers and ranchers need support. The beginning farmers and ranchers most likely do not fit into the same demographic as most other program participants. Many of them are likely facing financial, land hurdles to overcome, and may be working full time jobs elsewhere. The purpose of this project was to develop a learning network to fit the specific needs of beginning farmers in a portion of the Greater Richmond Area and determine its short-term outcomes.

The project reached further into the Greater Richmond Area than originally anticipated, bringing in farmers from seven counties instead of four. The needs of these specific farmers were realized through the whole farm planning classes, interviews and needs assessment discussion. These needs were then created into events that would turn the need into success and support the beginning farmers in their farming careers. These events will also provide a space for the learning network of members in the agriculture community to grow. The real results, whether or

not these beginning farmers sustain for more than 10 years, will only be discovered through continued communication and programming.

References

- Ahearn, M. C., & Newton, D. J. (2009). Beginning farmers and ranchers. *Economic Information Bulletin*, (53).
- Barbercheck, M., Brasier, K., Kiernan, N. E., Sachs, C., Trauger, A., Findeis, J., & Moist, L. (2009). Meeting the extension needs of women farmers: a perspective from Pennsylvania. *Journal of Extension*, 47(3), 82071-2000.
- Benson, M., Niewolny, K., & Rudd, R. (2014). An Evaluation of Program, Training and Resource Needs of Virginia Beginning Farmers and Ranchers: Virginia Beginning Farmer and Rancher Coalition Program. Retrieved From:
http://vabeginningfarmer.alce.vt.edu/content/dam/vabeginningfarmer_alce_vt_edu/resources/publications/evaluation-pub-ae81.pdf
- Crews, S., Grosse, R., Whitehead, R., & Grayson, S. (2015). Situation Analysis Report: Goochland County 2013. Virginia Polytechnic and State University 596(40NP).
- Dart, J., Petheram, R.J., Straw, W. (1998). Review of Evaluation in Agricultural Extension. *Rural Industries Research and Development Corporation*, 98(136), pp.11-12.
- FAO. (2009). *Global Agriculture Towards 2050*. Retrieved June 2,2017 from
http://www.fao.org/fileadmin/templates/wsfs/docs/Issues_papers/HLEF2050_Global_Agriculture.pdf
- Franz, M., Piercy, F., Donaldson, J., Richard, R., & Westbrook, J. (2010). How Farmers Learn: Implications for Agricultural Educators. *Journal of Rural Social Sciences*, 25(1). Pp. 37-59.

- Johnson, S.E., Bowlan, M., McGonigal, J., Ruhf, K. & Sheils, C. (2001). Listening to new farmers: findings from new farmer focus groups. Belchertown, MA: The New England Small Farm Institute.
- Lave, J. (1991). Situating Learning in Communities of Practice, in Resnick, L.B., Levine, J.M., & Teasley, S.D. (Eds.), *Perspectives on Socially Shared Cognition*. Washington, D.C.: American Psychological Association, 63-84.
- Meyer, L., Hunter, J., Katchova, A., Lovett, S., Thilmany, D., Sullins, M., & Card, A. (2011). Approaching beginning farmers as a new stakeholder for extension. *Choices*, 26(2).
- Mills-Novoa, M. (2011). Situating Family Farming Through Mentoring: A Toolkit for National Family Farm Coalition Members. National Family Farm Coalition. Retrieved January 31, 2017 from:
http://www.nffc.net/Issues/Local%20Food/NFFC_Mentoring_Report2011.final.pdf
- Niewolny, K. (2016). Building Capacity & Sustainable Partnerships: A Community-Based Participatory Approach to Beginning Farmer Training in Virginia. Retrieved from:
http://vabeginningfarmer.alce.vt.edu/content/dam/vabeginningfarmer_alce_vt_edu/resources/publications/building-capacity.pdf
- Niewolny, K. L., & Lillard, P. T. (2010). Expanding the boundaries of beginning farmer training and program development: A review of contemporary initiatives to cultivate a new generation of American farmers. *Journal of Agriculture, Food Systems, and Community Development JAFSCD*, 1(1), 65-88. Retrieved January 30, 2016, from
<http://www.nebeginningfarmers.org/files/2012/04/JAFSCD>.
- Papineau, D., Kiely, M. (1996). Participatory Evaluation in a Community Organization:

- Fostering Stakeholder Empowerment and Utilization. Evaluation and Program Planning, 12(1), 79-93.
- Pretty, J. (1995). Participatory Learning for Sustainable Agriculture. World Development, 23(8), 1247-1263.
- Society, N. G. (n.d.). Where to Travel for Food in 2016 -- National Geographic Travel. Retrieved February 04, 2017, from http://travel.nationalgeographic.com/travel/where-to-travel-for-food-in-2016/#/oysters-rappahannock-richmond-virginia_93613_600x450.jpg
- Tauer, Loren W. (2017). Working Paper: Farmer Productivity By Age Over Eight U.S. Census Years. Retrieved June 26, 2017 from <https://dyson.cornell.edu/faculty-research/workingpapers/documents/FarmerProductivityByAgeOverEightUSCensusYears.pdf>
- Trede, L. D., & Whitaker, S. (1998). Beginning Farmer Education in Iowa: Implications to Extension. Journal of Extension, 36(5). Retrieved January 28, 2016 from <http://www.joe.org/joe/1998october/a3.php>.
- USDA. (2014). 2014 Farm Bill Highlights. Retrieved on June 2, 2017 from https://www.rd.usda.gov/files/2014_USDA_Farm_Bill_Highlights.pdf
- USDA NASS, 2012 Census of Agriculture, Ag Census Web Maps. Available at: www.agcensus.usda.gov/Publications/2012/Online_Resources/Ag_Census_Web_Maps/overview/.
- USDA NASS (2014). 2012 USDA Census of Agriculture Highlights: Farm Demographics. ACH12-3. Retrieved June 2, 2017 from https://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farm_Demographics/Highlights_Farm_Demographics.pdf

USDA NASS (2014). 2012 USDA Census of Agriculture Highlights: Farmers Marketing.

ACH12-7. Retrieved January 31, 2017 from http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farmers_Marketing/Highlights_Farmers_Marketing.pdf

USDA-NIFA. (2012). FY 2011 Outcomes Report Beginning Farmer and Rancher Development Program. Washington, D.C: Elliott, Scott.

VDACS. (n.d.). Virginia Grown. Retrieved February 04, 2017, from http://vagrown.vdacs.com/default.aspx?market_type=%27RFM%27%2C%2B%27WFM%27&rid=2v

Virginia Employment Commission. (2017). Virginia Community Profile: Richmond MSA. Virginia Labor Market Information. Retrieved from: http://virginialmi.com/report_center/community_profiles/5121040060.pdf

Young, A.M., Perrewé, P.L. (2000). The exchange relationship between mentors and protégés: the development of a framework. *Human Resource Management Review*, 10, 177-209.

Yu, I. (2010). Mentoring as a social exchange process: Valuing exchange in mentoring relationships. Project 4: Bachelor scriptie, 1-35.

Zimmel, P., Wilcox, L. (2011). A Representative Farm Approach to Outreach with Beginning Farmers and Ranchers. *Choices*, 26(2), 1-8.

Appendix A



Publication 490-152
Revised 2013

Attendance Log

Virginia Cooperative Extension asks that you voluntarily respond to the questions below. The cumulative demographic information is requested solely for the purpose of determining compliance with federal civil rights law, and your response will not affect your eligibility to participate in Extension programs. By providing this information, you will assist us in assuring that VCE programs are administered in a nondiscriminatory manner.

Program Name		Location		Date									
NAME	CONTACT INFORMATION	GENDER		ETHNICITY		RACE (select one or more)				AGE			
First, Last	Address, email and/or phone #	Female	Male	Non-Hispanic or Latino	Hispanic or Latino	American Indian or Alaska Native	Asian	Black or African American	Native Hawaiian or other Pacific Islander	White	18	19 - 64	65

www.ext.vt.edu

Produced by Communications and Marketing, College of Agriculture and Life Sciences, Virginia Polytechnic Institute and State University, 2013
Virginia Cooperative Extension programs and employment are open to all, regardless of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, gender identity, marital, family, or veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Based in part on information of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University and the U.S. Department of Agriculture cooperating. Edwin J. Davis, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg, James E. Houston, Administrator, 1610 Extension Building, Virginia State Penitentiary.

VT001 120495-152/VCE-111

Appendix B



www.vabeginningfarmer.org

Program Name:	Introduction to Whole Farm Planning
Program Site:	Goochland
Program Date(s):	March 2 and 9

Thank you for taking a few minutes to provide feedback on this workshop. Your responses to the questions below will help us evaluate the workshop and improve future workshops.

1. Overall, after completing the course or workshop, to what extent has your knowledge of Whole Farm Planning increased, if at all?

- A great deal
 A moderate amount
 A little
 Not at all

2. Listed below are topics presented during this course or workshop. On the left, rate your level of knowledge of each topic BEFORE the course or workshop. On the right, rate your level of knowledge of each topic AFTER the course or module. Please rate your level of knowledge on a scale of 1 to 5, where 1 means "no knowledge" and 5 means "a very high level of knowledge."

	BEFORE					TOPIC	AFTER				
	1	2	3	4	5		1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. The Virginia Beginning Farmer and Rancher Coalition Program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. The Whole Farm Planning Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Resources available for New and Beginning Farmers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Formulating a Whole Farm Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Practices we talked about in this course or workshop are listed below. Please indicate whether you: (1) already use, (2) intend to use, (3) do not intend to use the practice, or indicate (4) if the practice does not apply to your operation. Check all that apply.

PRACTICE	(1) Already use practice	(2) Intend to use practice	(3) Do not intend to use practice	(4) Does not apply
1. Setting Goals for Yourself and Your Farm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Determining what you have available already and what you can have available to you in the future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Determining your next steps in the planning process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Contacting other resources for assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Listed below are ideas related to this course or workshop presented in the form of statements. Please indicate your level of disagreement or agreement with each statement.

STATEMENT	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. As a result of this workshop, I am more able to make informed decisions about my immediate farming needs and set realistic goals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. As a result of this workshop, I know of people I can go to for further support about technical farming assistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. As a result of this workshop, I know of additional resources I can access regarding making a plan for my farm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The material presented in this workshop was credible and trustworthy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The material presented in this workshop was relevant and helpful to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Overall, this workshop met my expectations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. What part of the workshop did you find *most* helpful to your needs?

6. What part of the workshop did you find *least* helpful to your needs?

7. Are you interested in creating a local network of beginning farmer and ranchers? If so, describe how you would envision that network functioning.

8. Are you interested in ongoing meetings in order to guide you long your next steps?

9. What is your farm related background?

- I do not come from a farm background, and I have little or no knowledge or hands-on experience.
- I do not come from a farm background, but I have farming experience and knowledge.
- I grew up on a farm.

10. Please check if you consider yourself one of the following USDA defined farming groups:

- Limited resource:** A limited resource person is a person with a total household income at or below the national poverty level for a family of 4 (\$22,050) or less, or less than 50% of the county median household income in both of the previous 2 years.
- Farm worker:** An individual who contributes to the labor of the farm but does not own/operator status.
- Female farmer:** A farmer who identifies themselves as a female operator.
- Socially disadvantaged:** A socially disadvantaged group is a group whose members have been subject to racial or ethnic prejudice because of their identity with a group, without regard to their individual qualities: Blacks or African Americans, American Indians or Alaska Natives, Hispanics, Asians, Native Hawaiians or other Pacific Islanders.

11. Please choose the statement that most closely matches your beginning farmer or rancher status.

- Prospective or explorer farmer:** Individuals interested in starting a farm or ranch. This includes next-generation farm family members as well as those who do not come from a farming background.
- Startup Farmer:** Individuals who are in the early stages of their agricultural operation.
- Re-strategizing farmer:** Farmers who are making changes to their operations after an initial period of farming. These individuals usually have increased decision-making responsibility and commitment to farming.
- Establishing Farmer:** Farmers who are expanding, diversifying, and stabilizing their farming operations.
- Transitioning Farmer:** Individuals who are family farm members who have decision-making roles on the farm without having primary farm operator status. Also referred to as heritage farmers.

12. What type(s) of agriculture are you currently interested in/ involved with? Check all that apply.

- | | | |
|--|--|---------------------------------------|
| <input type="checkbox"/> Dairy | <input type="checkbox"/> Beef | <input type="checkbox"/> Sheep |
| <input type="checkbox"/> Swine | <input type="checkbox"/> Equine | <input type="checkbox"/> Poultry |
| <input type="checkbox"/> Other Livestock | <input type="checkbox"/> Fiber | <input type="checkbox"/> Fruit |
| <input type="checkbox"/> Vegetables | <input type="checkbox"/> Feed grains | <input type="checkbox"/> Nursery |
| <input type="checkbox"/> Flowers | <input type="checkbox"/> Grains, dry beans, oil seeds
for human consumption | <input type="checkbox"/> Forages, hay |
| <input type="checkbox"/> Greenhouse | | <input type="checkbox"/> Other: _____ |

13. How many acres do you currently have/manage?

- | | | |
|---|--------------------------------|-----------------------------------|
| <input type="checkbox"/> None (planning to start farming) | <input type="checkbox"/> 6-10 | <input type="checkbox"/> 51-100 |
| <input type="checkbox"/> Less than 2 | <input type="checkbox"/> 11-20 | <input type="checkbox"/> 101-200 |
| <input type="checkbox"/> 2-5 | <input type="checkbox"/> 21-50 | <input type="checkbox"/> Over 200 |

14. What is your age range?

- | | | | |
|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
| <input type="checkbox"/> 18-19 | <input type="checkbox"/> 30-34 | <input type="checkbox"/> 45-49 | <input type="checkbox"/> 60 + |
| <input type="checkbox"/> 20-24 | <input type="checkbox"/> 35-39 | <input type="checkbox"/> 50-54 | |
| <input type="checkbox"/> 25-29 | <input type="checkbox"/> 40-44 | <input type="checkbox"/> 55-59 | |

15. What is your gender? _____

16. Have you taken any other VA Beginning Farmer and Rancher Coalition Program Courses or Workshops?

- Yes
- No

If yes, please list: _____

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY Informed

Consent for Participants in Research Projects Involving Human Subjects

Title of Project: A Beginning Farmer and Rancher Community Learning Network in the Greater Richmond Area: Program Development and Initial Evaluation

Principal Investigator: *Charlotte Maxwell*, Virginia Cooperative Extension

Co-Investigators for Evaluation Effort:

Kim Niewolny, PhD, Department of Agricultural, Leadership, and Community Education

Thomas Archibald, PhD., Department of Agricultural, Leadership, and Community Education,

Kim Morgan, PhD, Department of Agriculture and Applied Economics

I. Purpose of this Research/Project

The purpose of this project is to develop a local learning network to fit the needs of beginning farmers in a portion of the Greater Richmond Area and determine its short-term outcomes. This will be accomplished by (1) developing a comprehensive beginning farmer, farm leader and stakeholder matrix; (2) connecting beginning farmer and ranchers with Virginia Beginning Farmer and Rancher Coalition programming as well as established farmers to create a community learning network; (3) developing a plan of action with the beginning farmer participants based on their needs assessment; and to (4) evaluate short term outcomes of this programming. The purpose of this evaluation is to determine the knowledge gained from the introduction to whole farm planning classes and the short-term outcomes from participating in the classes to determine the short term effectiveness of the project. The evaluation results will be used in a professional presentation about the project.

II. Procedures

You are being asked to participate in an interview. The interview will last no more than 30 minutes. If you agree, this interview session will be audio taped. At no time will your audiotape be released to anyone other than the researchers involved with the project without your written consent.

III. Risks

This study has been reviewed and approved by the Virginia Tech Institutional Review Board. Individual answers and identities of the participants will be protected all times. This research involves no more than minimal risk.

IV. Benefits

There are no known benefits to participants. The results of the interviews will help evaluate the Coalition program and highlight areas of strength and improvement within the Coalition. The data collected from participants during this research may be developed into one or more papers for publication in academic journals or public reports through Virginia Cooperative Extension. No promise or guarantee of benefits has been made to encourage you to participate.

V. Extent of Anonymity or Confidentiality

Your identity, and that of any individuals who you mention, will be kept confidential at all times and will be known only to your interviewers. The above-mentioned interviews will be audio recorded and later transcribed by a member of the research team. When transcribing the interview recordings, pseudonyms (i.e., false names) will be used for your name and for the names of any other people who you mention. These pseudonyms will also be used in preparing all written reports of the research. Any details in the interview recordings that could identify you, or anyone who you mention, will also be altered during the transcription process. After the transcribing is complete, the interview recordings will be stored in locked offices used by the research team. The audio recordings will be destroyed after the analysis is complete, but the transcriptions will be stored indefinitely. It is possible that the Institutional Review Board (IRB) at Virginia Tech will view this study's collected data for auditing purposes. The IRB is responsible for overseeing the protection of human subjects who are involved in research.

VI. Compensation

No compensation will be offered to study participants.

VII. Freedom to Withdraw

Your participation in this research is entirely voluntary and your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. Similarly, you are free to withdraw from this research at any time. If you choose to withdraw from the research, any information about you and any data not already analyzed will be destroyed. You are free to choose not to answer any question at any time.

VIII. Subject's Responsibilities

As a participant you are responsible for participating in a 60 minute interview.

IX. Participant's Permission

I have read the Consent Form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

Signature of Participant

Printed Name of Participant

Date

Should I have any pertinent questions about this research I may contact:

Principal Investigator:

Charlotte Maxwell, Virginia Cooperative Extension, Associate Agriculture and Natural Resources Extension Agent and OMALS student.
(804) 556-5872
mcharley@vt.edu

Should I have any questions or concerns about the study's conduct or my rights as a research subject, or need to report a research-related injury or event, I may contact the VT IRB Chair, Dr. David Moore at moored@vt.edu or (540) 231-4991.

Appendix D



Virginia Cooperative Extension
Goochland Unit
1876 Sandy Hook Rd
Goochland, VA 22063
804-556-5841
email: mcharley@vt.edu
www.ext.vt.edu/goochland

Introduction to Whole Farm Planning: Farmer Interview Questions

1. Where there any aspects of whole farm planning that you had not considered prior to this class? Which ones?
2. What is, to you, the most important thing you learned during these classes?
3. As a result what you learned about whole farm planning, what actions are you planning to take in your farm planning process?
4. Do you need clarification or further guidance on any of the aspects that we covered in these two whole farm planning classes?

Invent the Future

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
Extension is a joint program of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and state and local governments.
Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other factor prohibited by law. An equal opportunity/affirmative action employer.



Appendix E



Virginia Cooperative Extension
Goochland Unit
1876 Sandy Hook Rd
Goochland, VA 22063
804-556-5841
email: mcharley@vt.edu
www.ext.vt.edu/goochland

Greater Richmond Beginning Farmer Needs Assessment Questions

1. What are your educational priorities?
2. What do you need access to in order to be successful and which of these do you need to acquire first?
3. What is your preferred method of learning (i.e. mentoring, classroom lectures, apprenticing, individual training, web based, hands on participatory)?
4. What is your preferred method of communication with this group?
5. Where do you want to be within the next 5 years (i.e. continuing education, buying land, expanding current production, etc)?

Appendix F



Virginia Cooperative Extension
Goochland
1876 Sandy Hook Rd
Goochland, Va 23063
804-556-5872

Greater Richmond Beginning Farmer and Rancher Action Plan

Activity: _____

Location: _____

Date and Time: _____

People Involved: _____

Money Requirement: _____

Appendix G

Farm Tour Survey

1. How did you hear about this event (i.e Facebook, Newspaper, E-mail)?

2. Please rate the distance you had to travel to attend this farm tour:

Convenient

Reasonable

Too Far

3. Please rate your interactions with other farmers during this tour. 1 being no time to interact and 5 being several opportunities for quality interaction among the group.

1 2 3 4 5

4. Please list one take-away from touring this farm that you would like to implement or avoid on your operation:

5. Do you have any comments on this farm tour or suggestions for future tours?

Thank You!

Appendix H



Virginia Cooperative Extension
Goochland Office
1876 Sandy Hook Rd
Goochland, Va 23063
804-556-5872
Email: mchalrey@vt.edu
www.vt.edu

Post Farm Tour Interview Questions

1. How would you describe your level of interaction with other farmers in the community prior to attending these beginning farmer events?
2. Do you think that attending these farm tours has helped to increase the number of opportunities you have to connect with fellow farmers?
3. Have you been connecting with participants in the beginning farmer events outside of the scheduled events? If so, how?
4. What challenges have you faced with connecting with the agriculture community? What can we do to improve relations in the farming community?

Appendix I



Agriculture Resource Night Survey



1. How did you find out about this program (Facebook, e-mail, Beginning Farmer Group, etc)?

2. Please rate your knowledge of the following organizations **before** and **after** attending this workshop. 1 being little to no knowledge, 5 being highly knowledgeable

BEFORE					Service Provider	AFTER				
1	2	3	4	5	Virginia Cooperative Extension	1	2	3	4	5
1	2	3	4	5	Soil and Water Conservation District	1	2	3	4	5
1	2	3	4	5	Farm Credit	1	2	3	4	5
1	2	3	4	5	Farm Bureau	1	2	3	4	5
1	2	3	4	5	VDACS	1	2	3	4	5
1	2	3	4	5	Farm Service Agency	1	2	3	4	5
1	2	3	4	5	VSU Small Farm Outreach	1	2	3	4	5
1	2	3	4	5	Department of Forestry	1	2	3	4	5
1	2	3	4	5	NRCS	1	2	3	4	5

3. Are there any service providers who were not present that you would like more information about? If yes, please list:

4. Did this event help to further your understanding of the services that are available to farmers?

- a. No b. Somewhat c. Yes

5. After attending this event, do you have a better understanding of how to contact the service provider in your area?

- a. No b. Somewhat c. Yes

6. Do you have any further comments or suggestions for future events?

Thank you!

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis prohibited by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture-cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray Holliday, Administrator, 1890 Extension Program, Virginia State University, Petersburg.

Appendix J



Virginia Cooperative Extension
Goochland Unit
1876 Sandy Hook Rd
Goochland, VA 22063
804-556-5841
email: mcharley@vt.edu
www.ext.vt.edu/goochland

Connecting Beginning Farmers with Resources Interview Questions- Stakeholders

1. What events have you attended with the Greater Richmond Beginning Farmer and Ranchers?
2. How would you rate the amount of time you had to interact with farmers at those events?
3. Do you feel that you have been able to make more people aware of the services that you offer by attending these events?
4. Have you seen an increase in calls, contracts or clients because of being involved with the group?
5. Do you see any needs that could be addressed through a specific workshop or event?

Appendix K



Virginia Cooperative Extension
Goochland Unit
1876 Sandy Hook Rd
Goochland, VA 22063
804-556-5841
[email: mcharley@vt.edu](mailto:mcharley@vt.edu)
www.ext.vt.edu/goochland

Connecting Beginning Farmers with Resources Interview Questions- Participants

1. What events have you attended with the Greater Richmond Beginning Farmer and Ranchers?
2. How would you rate the amount of time you had to interact with service providers at those events?
3. Do you feel that you are more, or less, knowledgeable about service providers and how to connect with them since being involved? Is there any confusion that needs to be addressed about services?
4. Have you utilized any of the services or technical assistance that you have learned about?
5. Do you see any needs that could be addressed through a specific workshop or event?



Virginia Cooperative Extension
Goochland Office
1876 Sandy Hook Rd
Goochland, Va. 23083
804-556-5872
Email: mchalrey@vt.edu
www.vt.edu

Online Advertisement Stakeholder Interview Questions

1. Which methods of online advertisement for events have you been using?
2. Has using these methods increased your work load, are they easy to use?
3. Have you noticed an increase in number of calls, or e-mails, from people who have seen the advertisements?

Appendix M

Charlotte Maxwell's Logic Model for Metro-Richmond Beginning Farmer and Rancher Coalition Program

Inputs	Outputs		Outcomes – Impact		
	Activities	Participants/Audience	Short	Medium	Long
<p>Staff and Stakeholders: Charlotte Maxwell, Virginia Beginning Farmer and Rancher Coalition, Farm Service Agency, Virginia Department of Agriculture and Consumer Services, Beginning Farmers, Established Farmers, Monacan Soil and Water Conservation District, Farm Bureau and Farm Credit.</p> <p>Virginia Beginning Farmer and Rancher Coalition workbooks and curriculum will be a focal point for materials.</p> <p>Funding will be received from Virginia Beginning Farmer and Rancher Coalition as well as individual event sponsorships from Farm Bureau and Farm Credit.</p> <p>Facilities: Goochland Public Library, J. Sassaou Reynolds Community College, Local Farms, Virginia Cooperative Extension Offices.</p>	<p>Advertisements in the local newspapers and e-mails to clients will be sent out to reach potential participants.</p> <p>Workshop Series on Whole Farm Planning.</p> <p>Tours of beginning and established farms.</p> <p>“Organizations Night” with all of our stakeholders and other local agribusinesses and services with established farmers.</p> <p>“Legacy Night” with established farmers to discuss farm succession.</p> <p>Publicity materials developed for web and paper.</p>	<p>Completed worksheets from Virginia Beginning Farmer and Rancher Coalition workbooks.</p> <p>Completed surveys after each workshop or event.</p> <p>Records of attendance at each workshop or event.</p> <p>Completed farm plans.</p>	<p>Each participant completing a business plan for their current or future farm.</p> <p>Increased awareness of programs and services offered in the community.</p> <p>Improved communications between beginning farmers in the community.</p> <p>Increased connections between beginning and established farmers.</p>	<p>Participants applying for cost share programming or grants with Soil and Water Conservation Districts, Natural Resources Conservation Service or Farm Service Agency.</p> <p>Increased interest in incoming beginning farmers to receive or join the program.</p> <p>Participants adopting sustainable practices they observed on farm tours.</p>	<p>Larger percentage of beginning farmers staying in production after 10 years.</p> <p>Decreased number of retiring farmers unable to find prepared beginning farmers to take over.</p> <p>Initial group of beginning farmers moving into a mentor role for the next generation of beginning farmers.</p>

Assumptions: All of the stakeholders listed above will be interested in being involved in either a planning, promoting, participating or evaluating capacity. Informal mentoring and hands-on workshops will meet the needs of beginning farmers in the area. The participants will be sincerely interested in starting a farm and have at minimum an idea of what they are planning to do. The community will support this group and be willing to work with them throughout the years.

Context: The Virginia Beginning Farmer and Rancher Coalition (VBFRC) has been actively programming throughout Virginia for the past 6 years. This logic model represents a VBFRC program designed specifically for the Metro-Richmond area. The program is being delivered throughout a rural community by the Virginia Cooperative Extension Goochland office and will consist primarily of farmers with zero to ten years of experience in their enterprise.

Appendix N



Name (s): _____ Farm Name: _____

Virginia Beginning Farmer and Rancher Coalition Program: Whole Farm Planning #1
Please answer all the questions below. This is going to be used for program development purposes. Your input is crucial to the success of this program!

1. How did you find out about this program? _____
2. Which county are you farming, or plan to farm, in? _____
3. Which of the following do you most closely associate with?
 - a. Explorer Farmer (thinking, haven't started yet)
 - b. Start Up Farmer (Early Stages, 1-3 years of operation)
 - c. Re-strategizing Farmer (Making changes after 4-7 years of farming)
 - d. Establishing Farmer (8-10 years; expanding, diversifying and stabilizing)
 - e. Transitioning Farmer (Family farm member who is taking on decision making roles)
4. What days of the week are best for you to attend programming? Circle all that apply in a typical (if there is such a thing) week.
Monday Tuesday Wednesday Thursday Friday Saturday Sunday
5. What time of day is typically best for you? Circle all that could apply.
Mornings (8-12) Afternoon (12-5) Evening (6-10)
6. How often do you want to meet with the Greater Richmond Beginning Farmers?
 - a. Weekly b. Twice a Month c. Monthly d. Quarterly e. Annually
7. How far are you willing/able to drive for an event (meeting, workshop, farm visit, etc)?
 - a. 0-15 miles b. 15-30 miles c. 30-45 miles d. 45+
8. What is your preferred method of communication for future events?
 - a. Email b. Phone Call c. Text Message d. Facebook page/group
9. Which enterprise(s) are you interested, or already involved, in?
 - a. Forestry b. Equine c. Dairy Goats d. Dairy Cattle
 - e. Beef Cattle f. Sheep g. Hogs h. Alpacas i. Llamas
 - j. Horticulture k. Aquaculture l. Meat Goats m. Poultry
 - n. other: _____