

WEST VIRGINIA BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM



Pike Mountain Farm, Preston County, WV

A CURRICULUM GUIDE TO DEVELOPING OR IMPROVING ON- FARM MENTORSHIP PROGRAMS



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This material is based upon work supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number SNE20-014-WV



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WV BEGINNING FARMER MENTORSHIP CURRICULUM GUIDE

SECTION 1: INTRODUCTION

A. WHY HAVE A MENTORSHIP PROGRAM?

Growing successful and sustainable small and medium sized agricultural businesses (SAME) requires a myriad of skills to effectively manage a wide swath of potential business risks. The skill-set required for farming in today's economy requires a whole-farm planning approach to managing the farm, in an effort to develop successful businesses, while improving the land, growing nutritious and affordable food, and playing a vital role in their local communities. This holistic approach to farming integrates traditional production and management skills, with all aspects of planning for social, economic, and environmental considerations.

Many of these skills can be learned from a well-planned beginning farmer training program. "While books, lectures, and videos can teach much of the theoretical underpinnings, they cannot serve as a substitute for knowing how soil feels when it is too wet to work, or the smell of hay that is too moldy to feed, or the muscle memory of peeling a gizzard or harvesting lettuce." (New Entry Sustainable farming Practices, 2018). A key part of that training program should integrate the lessons learned from experienced farmers – helping to pass along those soft skills that can make or break an enterprise to the new generation of farmers.

On-farm mentorships offer the experience of intensive mentorship to the next generation of farmers and ranchers, helping to shorten the learning curve and ensuring new farmers learn from the mistakes of the previous generation. Training new farmers through on-farm practical opportunities is both timely and relevant, as fewer and fewer aspiring and beginning farmers today have a recent family history of working in agriculture. This emphasizes the importance of on-farm opportunities as a hands-on learning tool to supplement the beginning farmer overall training program.

While experienced farmers are a treasure trove of valuable lessons and experiences, we understand that 'mentoring' a beginning farmer is a huge responsibility, and one that mentors do not usually take lightly. One question that we always come back to as we seek to develop on-farm mentorship programs – experienced farmers are excellent land manager and astute businesspersons, but will they be good mentors?

With the average age of U.S. farmers approaching 60 and only 1% of the U.S. population directly participating in agricultural production, on-farm mentorship opportunities that provide quality opportunities for future sustainable farmers are more important than ever. Well-trained mentees are primed to become successful employees, managers, and producers, which increases the pool of farmers, be it young or 'young at heart'. There are many compelling social and educational reasons to incorporate mentorship programs into farm operations. However, these programs require significant planning and management effort in order to be a meaningful experience for all involved.

B. WHO SHOULD USE THIS CURRICULUM GUIDE?

This curriculum guide will help harness the enthusiasm of experienced farmers to help train the next generation of beginning by introducing them to the many and nuanced aspects of running an agricultural business. While there is no specific set of rules for how to be a good mentor, a successful mentorship program must consider not only the needs and tasks needed to meet the operation's bottom line, but equally importantly, the mentee's educational goals and individual needs. The commitment of mentors is a valuable asset to growing the next generation of farmers. This mentorship curriculum guide integrates the unique knowledge of experienced farmers with useful tools and resources to supplement a wider beginning farmer training program. It is designed to help service providers and mentors develop or improve on-farm mentorship programs in WV.

C. AGRICULTURAL NEED IN WEST VIRGINIA

This project was driven by a 2014-2016 statewide 'sustainable agriculture needs assessment' process, and more recent discussions in 2018-2019 with ASPs and farmers, to better understand priority training areas, challenges faced, assistance needed and ideas for future programs, to better serve beginning farmers in WV. Survey results, together with related state census statistics, have confirmed that higher demand for local foods has created new opportunities for WV producers, but points to information and experience gaps that continue to limit entry and business success for producers in WV.

Over the last decade, WV farmland has declined by 72% and agriculture's contribution to GDP fell by 25%, with WV experiencing high levels of unemployment (7.3%). Beginning farmers can play a catalytic role in strengthening WV's agribusinesses. WV has experienced a significant decline in the number of producers (10% between 2012 and 2017); currently, for each principal operator under 35 years old, there are 7 over 65 (USDA, 2017). With almost half of WV farmers projected to retire in the next 10 years, WV urgently needs to grow new farmers.

WV is working to build a successful local food economy: 60% more farmers are targeting local direct customers in 2017 compared to 2012; a four-fold increase in farmers markets and CSAs occurred from 2012 through 2017; and food hubs are increasing (WV Agriculture Strategic Plan 2019). While these trends have created new market momentum, it has also highlighted two important gaps: a production gap where new producers are needed to meet increasing demand; and an information and experience gap among agricultural producers producing for these markets. The needs assessment survey and other communications showed that 92% (n=29) of beginning farmers, 100% (n=19) of aspiring farmers and 87% (n=57) of ASPs indicated strong interest in expanding production, product development/value-adding or market development, but require training and support in whole-farm planning and risk management to help them identify and mitigate business risks in these new markets.

Eighty-six percent (n=48) of aspiring/beginning farmers indicated a desire to learn from more experienced 'mentor/peer' farmers. While there are 'informal mentoring opportunities' in WV, no 'trained farmer mentors or complementary formal mentorship training program exists in WV. Having trained mentors is crucial in order to create a mutually beneficial experience for mentor and mentee.

This proposal grew out of the realization that WV ASPs can best serve our beginning farmers by creating a unique partnership of the state's agricultural service providers to leverage available resources and build upon best-practices to enhance our overall impact while minimizing overlap. Our previous working

relationships and current project efforts help strengthen our commitment as partners. This one-year project will train ASPs and Farm Mentors/Farmer Leaders (hereafter referred to collectively as ASPs) in WV to successfully work with beginning farmers, to help them start or expand operations, and improve the sustainability of their practices, through a comprehensive whole-farm planning and risk management training program, and to support these farmers in their early years of operation through mentoring, community partnerships and networking opportunities.

D. PROJECT GOALS AND OBJECTIVES

The goal of this project is to develop a 'formal mentorship curriculum checklist' to be used by mentors to successfully work with beginning farmers, to help them start or expand operations, and improve the sustainability of their practices.

The **objectives** are:

1. Mentorship Curriculum/Checklist Development - to help successfully design, manage and evaluate on-farm mentorship programs.
 - a. To help ASPs successfully design, manage and evaluate on-farm mentorship programs. This Mentorship Curriculum will be a 'whole-farm planning' mentorship curriculum guide that includes program objectives, task analysis sheets and related assessment/evaluation forms, and training rules and regulations, that will inform our competency-based mentorship program for beginning farmers.
2. Mentor 'Train-the-Trainer' Training – Train 15 mentors Mentorship Curriculum Checklist, to develop a diverse pool of mentors to serve the varying needs of WV beginning farmers, in the long run.
3. Discussion of Mentorship Curriculum Checklist with Farmers and other ASPs: Interact with mentors and mentees to get feedback on the curriculum and related tools developed, which will be used to make improvements and prepare for a beginning farmer training program in subsequent years.

E. CORE VALUES OF THE PROGRAM

This mentorship guide assumes the following core values of the mentorship program and the wider beginning farmer program, which it supplements:

1. Mentorship – Providing support to mentors able and willing to share their experience and expertise through on farm education to beginning farmers.
2. Community – Focused on building place-based knowledge and forming community connections.
3. Experiential Learning – Active and applied hands-on education in real farm and business settings.
4. Whole Farm Systems – Framing all decision making for personal, farm, and business management through a whole systems lens (business planning and risk management).
5. Small and Medium-Sized Operations – Geared towards smaller operations that produce high value specialty crops and/or livestock for retail and direct market.

F. CURRICULUM (COMMODITY) AREAS

This Mentorship Curriculum is a 'whole-farm planning' mentorship curriculum guide that includes program objectives, task analysis sheets and related assessment/evaluation forms, and training rules and regulations, that will inform our competency-based mentorship program for beginning farmers. In addition, it provides specific whole-farm planning competencies in the following important commodity areas. These commodity areas were selected because of their importance to the agricultural landscape in WV:

1. Indoor (High Tunnel) Production
2. Outdoor Production (Vegetables)
3. Orchards and Small Fruit Production
4. Beef Production
5. Small Ruminant Production
6. Swine Production
7. Poultry Egg Production
8. Backyard Poultry Production
9. Maple Syrup Production
10. Agritourism

G. INITIAL CONSIDERATIONS FOR CARRYING OUT MENTORING STRATEGIES – CHALLENGES AND BEST PRACTICES

The topic of mentoring encompasses many different approaches to help beginning farmers learn through one-to-one exchanges and in hands-on learning experiences. These approaches include mentoring, apprenticeships, internships, farmer networks, on-farm skill building and technical assistance. There is a need to come up with some common definitions for the use of these terms so we can better share best practices. For the purpose of this program, mentoring is defined as strategies that draw on life experiences to answer practical questions. There are many ways to achieve this purpose, informally, formally, farmer-to-farmer, small groups, on-going, short-term and more.

Challenges for carrying out mentoring strategies:

1. Making a match between mentors and mentees result in a productive exchange.
2. Geographic distance between mentors and mentees limits in-person time and can impact the ability to start or continue relationships, however when producers are not competing in the same market the mentor may be more likely to share more proprietary information.
3. Mentor farmers need support and to have a manageable number of engagements and level of commitments in order to make it sustainable for them, their family and their farms.
4. Mentor farmers have on-going needs for peer-to-peer learning.
5. Beginning farmers that are a few years into farming need to be connected with technical assistance that can help them address issues specific to their farm, markets and families.

Best Practices to Consider when Designing Mentoring Programs:

1. Small groups of farmers forming mentoring pools
2. Asking established farmers to identify other farmers they think would be good mentors
3. Clarifying for others about mentoring strategies that your program uses
4. Farmers have a unique ability to share from their genuine experiences and this is important in building a relationship with beginning farmers
5. Create an identity for farmer networks
6. Mentors should be prepared to share their numbers with beginning farmers
7. Networking is a key element for a beginning farmer program
8. Package mentoring with beginning farmer educational pathways (like farm planning training)
9. Develop diverse pools of mentors including food entrepreneurs.
10. Paying mentors for their time.
11. Put responsibility for initiating mentoring relationship on mentee (require them to call mentor every week and hold them accountable).
12. Tours of mentor and mentee farms for those participating each year.
13. Mentee applications are reviewed by potential mentors and includes a professional development plan. Mentors decide which mentor can best meet the mentees PD goals

SECTION 2: CONSIDERATIONS FOR DESIGNING THE OVERALL ON-FARM MENTORSHIP PROGRAM

A. CONSIDERATIONS FOR DESIGNING THE OVERALL ON-FARM MENTORSHIP PROGRAM

It is important for the lead organization/agency to have **a formal process** to invite mentors and mentees to participate in the mentorship program, and for selecting the ‘best fit’ to ensure mentors and mentees are suitably matched. This process could involve any of the following elements:

1. A written application
2. A formal interview (see list of sample interview questions on page ---)
3. Conversations by e-mail, in person, or on the phone
4. Checking references
5. An on-site visit, a working visit, and a trial-period
6. List of participating farm and farm mentors
7. The role of the organization/agency facilitating the mentorship program
8. Benefits for farm mentors/host farms and mentees/aspiring or beginning farmer
9. Supports to be provide to all participants

B. BENEFITS FOR HOST FARMS

In order to attract suitable farm mentors, it is also important to reiterate the **benefits that host farms and farm mentors will receive**. These benefits may include:

- Access to highly motivated aspiring and beginning farmers, with or without experience
- Willing mentees that will learn while contributing with farm tasks
- Logistical and administrative support from lead organization/agency
- Training for farm mentors in mentorship, communication, equity & inclusion
- Access to mentorship curriculum guide, program objectives, checklists, task analysis sheets and related assessment/evaluation forms to use to enhance the effectiveness of the mentorship experience, for mentors and mentees.
- A supportive network of peer farmer mentors to share experiences, best practices, and lessons learned.
- Access to educational events that are part of the overall Beginning farmer Training Program
- Assistance with interpretation of applicable labor and employment laws

- Ongoing check-ins and support during the training season

C. SUPPORT PROVIDED TO HOST FARMS

While the experienced farmers are an invaluable asset in training the next generation of farmers, we understand that ‘mentoring’ a beginning farmer is a huge responsibility, and one that mentors do not usually take lightly. Therefore, it is also important to reiterate ***the support that host farms and farm mentors will receive***, to alleviate any anxiety they may experience.

These supports may include:

- Promote all open positions on host farms, with the requisite pre-qualifications and expectations
- Handle the application and intake logistics and ensure that applicants are matched with appropriate mentoring opportunities
- Manage a database of current applicants seeking placements
- Co-create or adapt the overall Mentorship Curriculum Guide to accommodate additional on-farm skills based on the unique characteristics of each host farm
- Provide a template and support to create an on-farm agreement document to ensure expectations are managed on both sides
- Provide all templates and forms to support the mentorship process
- Facilitate a network of mentor farmers across the state with pre and post season meetings to share experiences and provide input to improve future experiences
- Facilitate on-farm evaluation sessions to help ensure successful experience for mentors and participants
- Provide mediation support if necessary

D. SUPPORT PROVIDED TO ASPIRING AND BEGINNING FARMER PARTICIPANTS

Similar to attracting suitable farm mentors, it is also important to reiterate the importance of the mentorship program to mentees, as a way to speed up the learning curve and learn from the success (and failures) of their mentors. As such, it is imperative to explain the ***benefits that aspiring and beginning farmers will receive***. These benefits may include:

1. Access to mentorship curriculum guide, program objectives, checklists, task analysis sheets and related assessment/evaluation forms, to better understand the expectations and requirements of the program

2. Access to the overall Beginning Farmer Training Program, with course materials, suggested reading materials, farm tours, group discussions, and additional resources, to complement the mentorship program and on-farm learning
3. Provide on-farm orientations for mentees at the beginning of the season to help orient participants to the mentorship program and how it interacts with the host farm
4. Facilitate a group orientation between mentees and on-farm mentors to encourage 'match-making'
5. Facilitate networking with other local producers, where appropriate
6. Facilitate on-farm evaluation sessions to help ensure successful experience for participants
7. Provide ongoing check-ins and support during the program season
8. Provide certification to participants upon program completion (useful for employment opportunities or loan prequalification)
9. Provide opportunities for college credits for program participants, where appropriate
10. Coordinate an alumni network of beginning farmers (***Beginning Farmer Success Academy***) to provide ongoing support and opportunities for beginning farmers to share best practices or to commiserate

SECTION 3: SELECTING YOUR PARTICIPANTS – MENTORS AND MENTEES

A. MENTOR CONSIDERATIONS – ARE YOU A GOOD FIT?

It is important to decide if the experienced farmer is a *good fit as a mentor*. There are some essential *values* that makes a good Farm Mentor:

- They encourage respect and realism for what it takes to make farming a career
- They are upfront about the benefits and challenges of small-scale, “sustainable” farming/entrepreneurship as a vocation or career
- They encourage respect for the three pillars of sustainability – profitability, environmental stewardship, and community connections and cooperation
- They model and teach others to work efficiently and effectively
- They work to develop mentoring relationships based on mutual trust and respect, with clearly defined boundaries
- They nurture trainee self-development
- They help create and maintain a positive, equitable, and healthy learning environment, setting a respectful tone, and addressing conflicts.

Ask yourself these questions to help you determine if you’re a good fit:

- Who were the mentors who helped you throughout your life?
- How and why were they mentors to you?
- What prior experience do you have as an educator or mentor?
- Why do you want to personally mentor a beginning rancher or farmer?
- What skills and personal qualities will best serve as strengths in your role as a mentor?
- What aspects of your personality will be challenged by the role of mentor?
- What are the long-term goals for your ranch or farm? (Think “mission statement.”)
- Mentor/apprentice relationships provide mutual learning opportunities. What are you excited to learn from an apprentice? How might an apprentice program assist you in reaching your farm goals?
- How comfortable will you be accepting critique, criticism, or suggestions from an apprentice?
- How flexible are you? How easily will you adapt your daily routine, work schedule, and operation to include a mentee?
- How might you check in with the intern/apprentice to assess if their learning is progressing or has halted?

- Do you have the experience and expertise to truly provide a valuable education to an intern/apprentice? Can you serve as an advisor/mediator as well as educator?

If you have answered the questions above in a way that will be helpful and favorable to mentees and the overall mentorship program, you are well on your way to serving as a Farm Mentor.

B. ASPIRING AND BEGINNING FARMER (MENTEE) CONSIDERATIONS – ARE YOU A GOOD FIT?

It is important to also consider the unique characteristics, needs and expectations of the prospective aspiring or beginning farmer to determine whether they are *a good fit as a mentee* for the overall mentorship program, as well as which host farmer may be the best match as a mentor. There are some important questions worth considering:

- How familiar are you with on-farm work (planning, management, physical labor, etc.)?
- Describe your working style – some options may include:
 - Do you prefer to work alone or on a team?
 - Do you like a lot of instruction and guidance, or do you prefer to observe and try things on your own?
 - Do you prefer to start and end early or take frequent breaks?
 - What have been your favorite jobs?
 - How do you prefer to give and receive feedback?
- Tell me about a time when you had to overcome a challenging situation. How did you handle it? What did you learn?
- Are you able to commit to the time requirements of the program and the expectation of the host farm? What challenges do you see in this area? Are there any limitations we should be aware of?
- What are your short, medium and long-term agriculture business goals?
- Are you open to a face-to face meeting, working visit, or other type of interaction with the host farmer prior to the program?

SECTION 4: HALLMARKS OF A SUCCESSFUL ON-FARM MENTORSHIP PROGRAM

Mentors and Mentees will each look at the On-Farm Mentorship Program through different lenses, and from different sides of the same fence. To ensure that the mentorship process does not fall short of expectations, there are a few hallmarks garnered from successful on-farm mentorships throughout the country. These include:

A. COMMUNICATION

Communication is the best way to forestall any misunderstanding, which may eventually compromise the mentorship process. Communications starts well before the on-farm mentorship starts, and continues regularly until the program ends, and even beyond that. Investing a lot of time up-front to set clear expectations of the mentorship program and setting up a communication strategy or plan to allow for continuous dialog, is paramount to a successful experience for all parties. The supporting resources provided by the lead organization/agency should assist with facilitating open and continuous communication.

B. MANAGING CURIOSITY, PATIENCE AND CONSISTENCY

Mentees are coming to learn, and while mentors are responsible for instructing on safety and production techniques, a healthy dose of curiosity and a drive to be a self-starter on their own education will serve an apprentice well to absorb as much from the experiences that the mentor already has under their belt. This curiosity must be balanced with patience. Mastery of these skills takes time, and the apprenticeship is on a working farm with a bottom line. Some questions are best held for a longer discussion around the dinner table or during the slower season. In farming, so much of the learning comes from practice, and doing this work daily cements knowledge in muscle memory. Repeating farm chores is not meant to burden the mentee but to add to muscle memory and life-skills. Additionally, there will be different abilities and experiences among the mentees when it comes to physical labor. It is helpful to spend some time explaining the ergonomics of new tasks being taught, to encourage correct body positioning and reduce the chance of injury.

C. WHOLE-FARM OUTLOOK

It is important to give mentees a holistic or whole-farm perspective, so they understand the nuances of running farm business rather than just producing a farm product. Exposing mentees to a variety of farm tasks, including infrastructure development projects, planning, marketing and distribution, and record-keeping and farm analysis, will offer them a greater sense of the whole farm operation and also help train them to be knowledgeable, skilled farm managers.

D. CONTEXT

There is a common saying that Dr. Dee Singh-Knights (WVU Extension Specialist, Agricbusiness Economics and Management) uses in many of her talks, “When you’ve seen one farm in West Virginia, you have seen just one farm in West Virginia!” The skills being taught may be the best practice for a common life-skill, or it may be a skill that requires some adaptation to a specific situation. It is important to help the mentee understand the skill being taught, and the context for why the mentor is doing it a certain way – usually that is based on efficiency, results or equipment and time available. That way, the mentee can understand how to adapt the skill or task to a future situation.

E. NEEDS

The time spent understanding and appreciating the needs of all participants (mentees and host farmers) will be well worth the effort in terms of contributing to the success of the mentorship program. Each aspiring or beginning farmer and host farmer will have different needs that must be met for the experience to qualify as a success. Understanding these needs and having the resources to ensure they are addressed is essential - the supporting resources provided by the lead organization/agency should assist with facilitating the needs assessment.

F. VISIONING AND REALISM

For some mentees, this will be their first agrarian experience or first real on-farm learning opportunity. Many may come with a ‘romantic’ or unrealistic notion of what it takes to farm or to run a successful sustainable agribusiness operation. It is important to help mentees understand the importance of deliberate visioning and goal-setting, but with a healthy dose of realism and the understanding of what it takes to make a living with an agricultural operation.

SECTION 5: REGISTERED ON-FARM MENTORSHIP PROGRAMS IN WEST VIRGINIA

Currently, the NESARE State Coordinator for WV (Singh-Knights) and the WVU Extension Service is working to formalize and approve an On-Farm Mentorship Program in collaboration with partner agencies. The USDA-NESARE State (WV) Professional Development Grant (2020-2021) has developed a structured curriculum that will can be adopted in a collaborative partnership between WVUES and any partner agency interested in having their constituents trained through this program. The On-Farm Mentorship program will train aspiring and beginning farmers in a formalized program comprised of on-farm mentorship under the guidance of a trained farm mentor, and associated classroom instruction (total program contact hours are still being determined). This program structure is the result of a DACUM (Developing a Curriculum) process involving key stakeholders and experts.

The On-Farm Mentorship Program will have a prearranged agreement/Memorandum of Understanding (MOU) between the partners agency/organization and WVUES (See Document 1). This formal agreement will involve review and approval of the overall program design and specifics. The On-Farm Mentorship Program and MOUs with various partner agencies/organizations in WV is still being finalized, and will be reviewed and approved by WVUES's partner agencies to ensure it the program meets their requirements, including:

1. A structured curriculum that sets forth the number of hours of on-farm mentorship and of associated (classroom and virtual) instruction required for completion of the program, and the relevant occupational knowledge to be learned and skills to be mastered at each stage. (See Sections 6 for more on the DACUM process.)
2. Recruitment or referral from the partner agency/organization for participants:
 - a. For example, WV Farm Service Agency requiring and connecting their first-time and current borrowers (aspiring or beginning farmers) to the On-Farm Mentorship Program. This organization is responsible for assessing the progress and approving graduation certification in conjunction with the WVUES.
 - b. Partner agencies/organizations also assist with developing a cadre of mentors and training them to participate effectively in the On-Farm Mentorship Program
3. Once the program is approved, it is up to the partner agency/organization to select participants based on minimum standards, qualifications, interviews, etc. as defined by the program.

Benefits of the Registered On-Farm Mentorship Program include:

1. Recognized certification upon completion conveys the participant's skill set and level of training.
2. Assure a consistent and complete foundational education for participants.
3. Assure participants of the approved quality and standards of their training programs.
4. Associated classroom instruction supplements on-farm mentorship opportunities.
5. Assure an effective program because of the formal structure and organization of the approved program.

Tentative partner agencies/organizations in WV Farm Service Agency, Farm Credit of the Virginias, WV Farm Bureau, WVU Davis College (Agribusiness and Agricultural Education Students), WV Farm and Food

Coalition, WV Veterans Maple Mentors, and Sprouting Farms and other beginning farmer incubator programs.

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SECTION 6: THE DACUM (DEVELOPING A CURRICULUM) PROCESS

Establishing clear goals and expectations for the On-Farm Mentorship curriculum is the biggest step towards ensuring the success of the program. This WV Beginning Farmer Mentorship Program curriculum is designed as a 'whole-farm planning' mentorship curriculum guide that includes program goals and objectives, task analysis sheets and related assessment/evaluation forms, and training rules and regulations, that will inform our competency-based mentorship program for beginning farmers.

In addition to the skills checklist, a well-rounded mentorship curriculum should be completed in conjunction with associated classroom instruction. In the case of WV, the On-farm Mentorship Program is being developed and implemented in conjunction with the WV Beginning Farmer Training Program. This three-year project will develop a Train-the-Trainer (TTT) program for ASPs and Farm Mentors/Farmer Leaders in WV to successfully work with beginning farmers, to help them start or expand operations, and improve the sustainability of their practices, and to support these farmers in their early years of operation through mentoring, community partnerships and networking opportunities. The TTT program will develop a comprehensive whole-farm planning and risk management curriculum designed to help move BFs from a production mindset to a business and risk-oriented mindset. The program will provide a one-stop-shop of resources to help offer a more holistic and efficient training opportunity to overcome the unique challenges for this targeted group.

A. PRINCIPLES OF ADULT LEARNING

As we embark on developing a curriculum to empower aspiring and beginning farmers, and mentors to make sound decisions and beneficial changes to increase the sustainability of their operations, it is essential to build this curriculum with the specifics of adult education in mind. Below are the principles underpinning the WV On-Farm Mentorship Curriculum, adapted from the primary characteristics of adult learners as originally defined by “adragogy,” or adult learning theory, as well as the SARE’s publication ‘Sustainable Agriculture Through Sustainable Learning An Educator’s Guide to Best Practices for Adult Learning’ by Bell and McAllister.

1. **Make Content Relatable:** One of the most powerful ways to help adult learners retain new information is by making it relatable to their past experiences or existing knowledge. The curriculum and on-farm mentorship experiences should provide opportunities for learners to link the curriculum content to their prior experiences and knowledge.
2. **Engage Positive Emotions:** All people share the same set of core emotions. Positive emotions—joy and surprise—keep adult learners motivated and promote creative thinking, whereas negative emotions, such as fear and anger, can limit learning. The program should focus on learning activities that engage positive emotions.
3. **Autonomous and Self-Directed:** Adult learners prefer to be free to direct themselves. It is important to actively involve them in the learning process and serve as a facilitator for them. The curriculum design should adopt a learner-centered educational model to give participants choice in content, processes and outcomes. This will motivate them to stay engaged.
4. **Identify Mental Models:** The combination of knowledge and unconscious biases related to an aspect of an adult’s life, such as family or farming, is called a mental model. Mental models can

impact how and what farmers learn. Understanding these mental models can help educators design programs that enable farmers to succeed.

5. Provide Opportunities for Practice and Application: providing opportunities to allow learners to practice using new knowledge and skills will help ensure they will remember and apply them. Providing opportunities to apply what they have learned to real-world problems prepares learners to address challenges they may encounter in their own work or farm situations.
6. Respect: Acknowledge the wealth of experiences that learners bring to the mentorship program. Learners should be treated as equals as persons with experience and knowledge, even when you are far more experienced in agriculture than they are.
7. Goal-Oriented: Learners usually know what they want to attain; good organization and clearly defined elements on of the program will help them accomplish their goals and yours. Show learners how your program will help them attain their goals by presenting clear goals and course objectives early in the process.

B. THE DACUM (DEVELOPING A CURRICULUM) PROCESS

The DACUM Process, an abbreviation for “Developing A Curriculum,” is a tool created by Ohio State University to outline occupational profiles for the purpose of establishing peer-developed standards in a particular industry. DACUM facilitators work with five to eight “panel experts,” in our case agricultural service providers (ASPs) and farmer leaders, to define the key tasks and duties associated with successful outcomes. Not only do these charts help to elaborate on the expectations required of new learners, they help stakeholders define and map their overall farm mentorship curricula and goals. DACUM charts are best used as a template of detailed skills assessment, through which progress and achievement are explicitly defined and formally recognized. The formality and credibility of a DACUM skills assessment may also prove helpful for collaborative programs seeking to establish specific standards for their participants (in our case, WV Farm Service Agency of or the Davis College at WVU).

The DACUM for the WV On-Farm Mentorship Program comprise two sets of overall skills:

1. ***Beginning Farmer On-Farm Mentorship Program Entrepreneurship and Business Management Skills – All Commodities (Worksheet 5): Includes skill-set related to:***
 - a. Whole-Farm Business Skills
 - b. Building meaningful mentor-mentee relationships that lasts
 - c. Goal Setting – Balancing Farm and Family Goals
 - d. Quality of Life and Farm Stress
 - e. Farm Efficiency and Profit Drivers
 - f. Access to Resources – land, capital, machinery, technical knowledge (conferences, etc.)
2. ***Beginning Farmer On-Farm Mentorship Program Commodity-Specific Skills - Commodity Area (Worksheet 6-15).*** Checklist to comprise:
 - a. Requirements (production management, tools/equipment/machinery, financial, marketing, labor/employees, partnerships/alliances, liability/regulations/permits, etc.) for each commodity area, including:

- i. Indoor (High Tunnel) Production
 - ii. Outdoor Production (Vegetables)
 - iii. Orchards and Small Fruit Production
 - iv. Beef Production
 - v. Small Ruminant Production
 - vi. Swine Production
 - vii. Poultry Egg Production
 - viii. Backyard Poultry Production
 - ix. Maple Syrup Production
 - x. Agritourism
- b. Task-Analysis Checklist and Evaluation Sheets
 - c. Associated costs for commodity requirements; and
 - d. Link(s) to resource/supplemental information.

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SECTION 7: APPENDIX (WORKSHEETS AND DOCUMENTS)

APPENDIX – WORKSHEETS

Worksheet 1: To determine whether person is good candidate for BF Mentorship Program.

Worksheet 2: Questions for Mentor Interview Process

Worksheet 3: Questions for Mentee Interview Process

Worksheet 4: Developing a Farm Policy – A Checklist

Worksheet 5: DACUM Task Analysis Checklists – Entrepreneurship and Business Management Skills

Worksheets 6-15: DACUM Task Analysis Checklists – Specific Commodity Areas

Worksheet 16: Evaluations Form – Farm Mentor (In Progress)

Worksheet 17: Evaluation Form – Farm Mentee (In Progress)

Worksheet 18: Evaluation Form – Partner Agency/Organization and Host Organization (In Progress)

SAMPLE DOCUMENTS

Document 1: Sample On-Farm Mentorship Agreement

Document 2-5: Sample Documents for Mentorship (On-Farm Fellowship) Program with Eastern CTC (Community and Technical College, Moorefield, WV)

Document 2: 2022 farm Fellow Agreement (Adult)

Document 3: 2022 Farm Fellow Agreement (Youth)

Document 4: 2022 Mentor Agreement (Adult Only)

Document 5: Farm Fellow Application Form

Document 6: Mentor Application Form

WORKSHEET 1.A: MOTIVATIONS FOR BECOMING AN ON-FARM MENTOR

It is important to identify your own reasons for wanting to become a mentor. Your answers will help the program decide how best to include you in the overall Beginning Farmer Training Program, and which mentees you will match best with. You may even decide that your motivations do not justify becoming a mentor, but that you may rather help serve in another advisory capacity than be a direct mentor.

To help with that decision, please complete the following worksheet. On a scale of 1-5, with 1=not important and 5=very important, rate your motivations for becoming an on-farm mentor by putting an X in the appropriate box:

MOTIVATIONS	Not Important → Very Important				
	1	2	3	4	5
I need labor for my farm					
I like to work with others					
I enjoy sharing my experience and knowledge with others					
I want to help create an educated generation of producers/processors					
I want to help to train a new generation of farmers					
I had a good mentorship experience and want to provide the same opportunity for others					
I want to share my love of the farming lifestyle with others					
I like the energy of having “new blood” on my farm					
I want to spend time with others who enjoy farming					
I have learnt critical best practices that I want to share with others					
Other:					
Other:					
Other:					
Other:					
Other:					
Other:					
Other:					
Other:					
Other:					
Other:					
Other:					
Other:					
Other:					

WORKSHEET 1.B: QUESTIONS ON-FARM MENTOR SELF-EVALUATION QUESTIONNAIRE

This questionnaire is meant to be used as a professional development tool – not as an examination! Its purpose is to encourage farmers who currently host trainees on their farms to conduct a thoughtful, private evaluation of their programs, program settings and personal skills. The questionnaire is also a useful resource for farmers who are considering mentoring. Place a “a” in the box that most accurately represents your response to each question, with 1= strongly agree and 5= strongly disagree. Then total the number of checks you have made in each column. Note: as used in this document, the word “mentee” denotes those who are temporarily working/housed on your farm to perform labor and receive a broad agricultural educational experience.

FARMING KNOWLEDGE AND SKILLS SELF-ASSESSMENT					
	Agree → Disagree				
	1	2	3	4	5
Other farmers often ask me for advice.					
I produce healthy crops and/or healthy animals.					
I have a fertility plan and conduct regular soil tests, etc.					
I participate in on-farm research projects.					
I have improved in one or more important areas over the last year, over the past five years. (Make a note of these areas.)					
I keep up with current research relevant to my farm.					
I have access to appropriate technology for the scale/type of my farm operation.					
I am conscientious about maintaining and repairing equipment.					
All in all, I feel confident about my technical farming skills.					
TOTAL	1	2	3	4	5
FARM MANAGEMENT KNOWLEDGE AND SKILLS SELF-ASSESSMENT					
	Agree → Disagree				
	1	2	3	4	5
I have a business plan. A whole farm plan. A marketing plan.					
I am conscientious about keeping good records.					
I am an effective time manager.					
Paperwork and routine jobs are done in a timely fashion.					
I am rarely behind in one or more areas.					
I am an effective personnel manager.					
The rate of my employee turnover is ok.					
I provide proper employee compensation and adhere to the terms of employee agreements or contracts.					
I provide employees and others with a clear work schedule.					
I manage my farm business in compliance with state local and federal regulations					
My farm has a good safety record.					
The general appearance of my farm reflects good management.					
I carry necessary insurance in sufficient amounts.					

My farm is achieving annual increases in sales.					
My farm does business based on fair contracts.					
I have evidence that my customers are well satisfied. If, for example, my farm is a CSA, the rate of membership turnover is acceptable.					
my farm is a CSA, the rate of membership turnover is acceptable.					
My farm serves a diversity of markets					
I can effectively manage and/or am free from debt.					
If I rent or lease farmland, I have a good relationship with the owners.					
All in all, I feel confident about my farm management skills.					
TOTAL	1	2	3	4	5
TEACHING/TRAINING KNOWLEDGE AND SKILLS SELF-ASSESSMENT					
	Agree → Disagree				
	1	2	3	4	5
I have conducted a self-assessment to determine topic areas of personal unfamiliarity/weakness, and I regularly ask another farmer or subject matter expert to teach or provide training in this material.					
I use sound teaching/training methodology.					
I provide comprehensive task analyses and lesson plans.					
I have a good understanding of different learning styles, and of the needs and interests of “adult learners.”					
I prepare learning exercises and/or reading assignments to augment in-class or on-field instruction					
I have a systematic approach to teaching hands-on skills.					
I am able to communicate effectively, and clearly articulate ideas.					
I am teaching at an appropriate level or stage of expertise.					
All in all, I feel confident about my teaching knowledge and skills.					
TOTAL	1	2	3	4	5
MENTORING KNOWLEDGE AND SKILLS SELF-ASSESSMENT					
	Agree → Disagree				
	1	2	3	4	5
I regularly offer encouragement to trainees.					
I foster a positive approach to learning.					
I have strong social skills.					
I am an inspirational mentor.					
I have the ability to clearly communicate expectations.					
I promote teamwork.					
I balance criticism with praise.					
I am reflective.					
I have the ability to assess trainee readiness.					
I am accepting of mistakes.					
I am able to turn production problems into learning opportunities.					
I am able to turn “mistakes” into learning opportunities.					
I can accept economic losses as a part of the process of trainees’ learning.					
I am willing to learn from trainees.					

I welcome questions.					
My program reflects willingness to set aside time to check-in and/or debrief.					
I am willing to acknowledge my own biases.					
I am willing to ask for help from peers.					
I am effective in managing my own stress.					
I have a procedure for trainees to air grievances or concerns.					
I have a procedure for dealing with problems between trainees.					
I have a procedure for firing trainees.					
I offer support to trainees after they leave my farm.					
All in all, I feel confident about my mentoring skills.					
TOTAL	1	2	3	4	5

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WORKSHEET 2: QUESTIONS FOR MENTOR INTERVIEW PROCESS

Mentors offering farm and ranch experiences on family farms must balance the stresses of meeting a bottom line with the time and patience required to teach a mentee. We recognize that the best farmers aren't always the best mentors. Your answers to the following questions will help us better understand your experience in teaching or mentoring roles.

QUESTIONS	RESPONSES
Who were the mentors who helped you throughout your life?	
How and why were they mentors to you?	
What prior experience do you have as an educator or mentor?	
What are your skills in farming or agribusiness?	
Why do you want to personally mentor a beginning rancher or farmer?	
What skills and personal qualities will best serve as strengths in your role as a mentor?	
What aspects of your personality will be challenged by the role of mentor?	
What are the long-term goals for your ranch or farm? (Think "mission statement.")	
Mentor/apprentice relationships provide mutual learning opportunities. What are you excited to learn from an apprentice? How might an apprentice program assist you in reaching your farm goals?	
How comfortable will you be accepting critique, criticism, or suggestions from an apprentice?	
How flexible are you? How easily will you adapt your daily routine, work schedule, and operation to include a mentee?	

How might you check in with the intern/apprentice to assess if their learning is progressing or has halted?	
Do you have the experience and expertise to truly provide a valuable education to an intern/apprentice? Can you serve as an advisor/mediator as well as educator?	
Other	

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WORKSHEET 3: QUESTIONS FOR MENTEE (ASPIRING OR BEGINNING FARMER) INTERVIEW PROCESS

Mentors offering farm and ranch experiences on family farms have to balance the stresses of meeting a bottom line with the time and patience required to teach a mentee. We recognize that the best farmers aren't always the best mentors. Your answers to the following questions will help us better understand your experience in teaching or mentoring roles.

QUESTIONS	RESPONSES
Farm mentorship experience?	
Describe your educational background and experiences	
How familiar are you with on-farm work (planning, management, physical labor, etc.)?	
Do you prefer to work alone or on a team?	
Do you like a lot of instruction and guidance, or do you prefer to observe and try things on your own?	
Do you prefer to start and end early or take frequent breaks?	
What have been your favorite jobs? What aspects of that job was rewarding to you? Why?	
How do you prefer to give and receive feedback?	
Tell me about a time when you had to overcome a challenging situation. How did you handle it? What did you learn?	
Are you able to commit to the time requirements of the program and the expectation of the host farm? What challenges do you see in this area? Are there any limitations we should be aware of?	
What are your short, medium and long-term agriculture business goals?	
How do you envision this mentorship experience will help you with your agribusiness goals?	

Are you open to a face-to face meeting, working visit, or other type of interaction with the host farmer prior to the program?	
Other	

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WORKSHEET 4: DEVELOPING A FARM POLICY – A CHECKLIST

Use the answers to these questions to formulate the basis of your on-farm policies. Providing mentees with a clear set of guidelines about your farm is essential to creating a high-quality mentorship.

POLICY AREA	CONCERNS	POLICY DOCUMENT
Time Management	What is your weekly schedule? (For each day, include time of rising, breakfast, commencement of first task, educational time, other meals, last task, completion of days' work.) Explain how times and tasks may vary, based on the day of the week (e.g., markets on Tuesdays and Fridays may require late work the previous evening and earlier-than usual rising to accommodate travel time)? Does the schedule vary based on the season?	Link to Policy Document here
Meals or Consumables	Can a mentee eat whatever they want from the farm or take produce only when there is a surplus? Should they ask before they harvest any produce?	Link to Policy Document here
Schedule	Do you require the mentee to stick to the set schedule? How much advance notice do you require for changes?	Link to Policy Document here
Meetings	Do you hold regular meetings with your mentees? What do your meetings consist of (daily plan; weekly plan; airing interpersonal issues; providing feedback)?	Link to Policy Document here
Questions and Feedback	Do you prefer to be asked questions about farming on a need basis? Would you rather be asked questions at specific times (during farm meetings; at the end of the day)? Are you willing to receive constructive criticism from your mentees about your farm? Would you prefer that the mentee conclude their mentorship before offering their observations about your farm?	Link to Policy Document here
Visitors	Can mentees invite guests to visit the farm? Are there times or days of the week when they can visit (in the evenings; on weekends)? What expectations do you have about visitors' behavior while at your farm?	Link to Policy Document here
Education	What kind of farm education can your mentees expect? Will you follow the formal structure of the mentorship program from the host organization?	Link to Policy Document here
Alcohol, Smoking, Vaping and Drug Policy	Do you review the policy on your farm with all incoming interns? Are the repercussions clear for an intern who violates your policy?	Link to Policy Document here

Privacy	Are there times of the day or week that you do not want to be disturbed by your interns (e.g., after 9 p.m. or on Sunday mornings), except in the case of emergencies? If you have a family, what times of the day would you like to have alone with them? Are there areas of the farm that mentees are restricted from? Do mentees have access to some/all farm records?	Link to Policy Document here
Working with Mentees	How much do you work alongside interns? Does this vary through the season?	Link to Policy Document here
Other		Link to Policy Document here
Other		Link to Policy Document here

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WORKSHEET 5: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM ENTREPRENEURSHIP AND BUSINESS MANAGEMENT SKILLS – ALL COMMODITIES

Check off which of the following skills you are interested in acquiring. How would you rate your skills (1 to 5) in each of those areas – assess your ‘skills rating’ at the start and end of the program?

1. No experience/knowledge/skill. This aspect of running a farm business is completely new to me.
2. Somewhat familiar. I have experience or knowledge relating to some of the necessary skills, but not most.
3. Moderate. I have experience or familiarity with most of the relevant skills.
4. Comfortable. I have experience or training in all or most of the aspects of this part of farming.
5. Very experienced. I am confident that I can handle all aspects of this part of my farm.
- X. Not applicable (for example: experience with livestock is not needed if you do not plan to raise animals).

KNOWLEDGE AND SKILLS	Skill Interest	Current Level	Target Level	Ending Level
1. Whole Farm Planning <ul style="list-style-type: none"> - Goal setting – Managing farm and family goals - Market research - Acquiring land (e.g., rent, lease, purchase) - Developing production, marketing & financial plans - Researching legal requirements - Mapping & developing a land use plan 				
2. Business Start-Up <ul style="list-style-type: none"> - Choosing a legal structure (for tax and legal purposes) - Registering a business and registering for farm sales tax exemption - Obtaining credit or capital - Obtaining permits, licenses & insurance - Setting up bookkeeping & record-keeping systems 				
3. Business Management <ul style="list-style-type: none"> - Collecting payments - Bookkeeping; paying bills & taxes - Monitoring cash flow - Making quick decisions - Record keeping (e.g., financial, production, sales) - Managing debt - Financial Analysis and Management (Revenue, Cost, Profits relationships) - Risk Management (production, financial, marketing, legal and environmental, and human resource) - Business planning (whole-farm) 				

<p>4. Pursuing Further Education & Training</p> <ul style="list-style-type: none"> - Keeping up with the latest production & marketing trends - Keeping up with the latest management trends - Attending conferences, courses & workshops - Apprenticing or finding a farmer-mentor - Reading agricultural books, magazines & catalogs 				
<p>5. Maintaining Family & Community Relations</p> <ul style="list-style-type: none"> - Making time for yourself & your family - Building relationships with your neighbors - Participating in community & agricultural organizations 				
<p>6. Managing Farm Labor</p> <ul style="list-style-type: none"> - Preparing seasonal labor & farm safety plans - Training & supervising workers - Complying with state & federal labor regulations 				
<p>7. Managing Tools, Equipment & Supplies</p> <ul style="list-style-type: none"> - Fabricating new tools & equipment - Maintaining & repairing tools & equipment - Truck / tractor basic operation - Truck / tractor troubleshooting and mechanics - Changing a tire, Changing the oil - Operation of hand tools and power tools - Chainsaw safety / maintenance / operation - Backing up a trailer - Operating manual transmission - Basic welding 				
<p>8. Managing Farm Infrastructure</p> <ul style="list-style-type: none"> - Building infrastructure (e.g., barns, greenhouses, fences) - Maintaining & repairing infrastructure 				
<p>9. Land Management and Stewardship</p> <ul style="list-style-type: none"> - Basic soil health/ecology - Grass, plant, forage ID - Making a grazing plan - Setting up and moving single-wire electric fence - Manure composting / management - Pasture management - Holistic Management essentials - Managing animals to heal the land 				
<p>10. Marketing</p> <ul style="list-style-type: none"> - Choosing marketing strategies - Developing promotional materials; advertising - Monitoring competition & market conditions - Adapting quickly to sudden changes - Selling farm products & services - Managing Customer Service - Encouraging diversity, equity and inclusion 				

<p>11. Annual Farm Business Review & Re-planning</p> <ul style="list-style-type: none"> - Preparing financial statements & tax forms - QuickBooks/Record-keeping system - Reviewing & analyzing records - Revising whole farm plan 				
<p>12. Managing Farm Stress and Mental Health</p> <ul style="list-style-type: none"> - Managing quality of life, farm stress and mental health issues – training and access to resources 				

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WORKSHEET 6: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM COMMODITY-SPECIFIC SKILLS – BEEF PRODUCTION

Check off which of the following skills you are interested in acquiring. How would you rate your skills (1 to 5) in each of those areas – assess your ‘skills rating’ at the start and end of the program?

1. Very experienced. I am confident that I can handle all aspects of this part of my farm.
 2. Comfortable. I have experience or training in all or most of the aspects of this part of farming.
 3. Moderate. I have experience or familiarity with most of the relevant skills.
 4. Somewhat familiar. I have experience or knowledge relating to some of the necessary skills, but not most.
 5. No experience. This aspect of running a farm business is completely new to me.
- X. Not applicable (for example: experience with livestock is not needed if you do not plan to raise animals).

KNOWLEDGE AND SKILLS	Skill Interest	Starting Level	Ending Level
1. General Knowledge and Skills <ul style="list-style-type: none"> - BQA Training - Selection (EPD's, phenotype, matching to your needs) - Predators - Fences - Newborn calf care - Feeding minerals - Record keeping - Animal handling Training - Animal Handling Training - Point of Balance, etc.; Quiet animal handling; Times to move cattle; Creatures of habit; Body Condition Scoring; Grazing Management 			
2. Behaviors <ul style="list-style-type: none"> - Consider Environment - Biosecurity - Able to Identify a sick calf 			
3. Management Technique <ul style="list-style-type: none"> - Stocking rate - Hay Quality - Reproduction Options (AI, ET, NS, Replacements) - Vaccinations - Parasite management - Forage/Soil Testing - Weed/Brush Control - Basic diseases to watch for/symptoms - Droopy ears, eyes, not coming to feed, etc. 			

<p>4. Business Decisions</p> <ul style="list-style-type: none"> - Run an enterprise budget-what is your break-even? - Marketing Options o Property - Renting (What to look for, what to avoid); Contract Grazing; Other options 			
<p>5. Cow/Calf Production-Specific Considerations (Commercial and Seedstock)</p> <ul style="list-style-type: none"> - Record keeping - Selection - Conformation/Structure; Selecting for your needs; Docility - Nutrition for cows, Nutrition for calves; Bull Nutrition - Breeding Soundness Exams - Scales - BCS (Body Condition Score) - When to check - Mature cow size for your feed availability - Bull Frame score - Parentage (Seedstock) - Genomic Testing-seedstock - Contemporary Grouping; Increases EPD Accuracy; Understanding your EPD's (Differences among breeds; Focus on more than just BW and CED) - Breeding Options - Embryos, AI, etc.; May not even need a bull with "new" technologies - Diseases – Breeding; PI Test (BVD) 			
<p>6. Feeders/Stockers/Backgrounding- Specific Considerations</p> <ul style="list-style-type: none"> - Feeding <ul style="list-style-type: none"> o Nutrition, what they need at different stages o How much to feed o Feedyard situation vs pasture o Not making big changes as they grow with their feed o Forage Testing o Calculate ADG, types of rations for stage of growth o Weighing calves to see their growth <ul style="list-style-type: none"> ▪ Feeder Cattle Grading - Selection o Understand what a finished animal looks like <ul style="list-style-type: none"> ▪ Tour a packing facility to learn differences ▪ Beef Quality Grades/Yield Grades o Diseases - Identify a sick calf: (droopy ears, eyes, not coming to feed, etc.); Timeframe for when they'll get sick; PI Testing for BVD 			
<p>7. Facilities</p> <ul style="list-style-type: none"> - Handling Facility-Know how to use it - Loading set-up - Understand livestock movement 			

8. Equipment List

- Feeder*
- Feed trough*
- Water source H2O access, good supply
- Panels
- Buckets*
- Scales or weigh tape
- Head-gate (A good one is “priceless”)
- Halter, lariat, good rope
- Medication to have on hand
 - Antibiotics
 - Blood stop powder
 - “First-Aid Kit”
 - Needles/Syringes
 - Vet wrap
 - Thermometer
 - Iodine
 - Wound spray
 - Blood stop
 - Scalpel
- Calving Kit (especially for winter calving)
 - Colostrum
 - Bottle
 - Stomach/Esophageal Feeder
 - Resorb
 - Chains/calf puller (training to use)
 - Iodine
 - Gloves
 - Selenium
 - Tags/Tagger
 - Calf scales or weigh tape
 - Castration tools & knowledge (count to 2!)
 - Elastrator & bands

*A producer could get by without these items

9. Useful Resources

- WVUES
- NRCS
- FSA
- Dept of Ag
- Conferences
- Networking
- Veterinarians (but have a backup plan/person)
- Breed Associations-some people might be able to help you market your animals and vice versa

<p>10. Friendly Advice</p> <ul style="list-style-type: none"> - Opportunities from breed associations - See packing facility - Look and learn from other facilities - Take advantage of farm/ranch tours - “Borrow” ideas - Think for yourself and what YOU want to accomplish - Be creative! - Flexibility and don’t be scared to change <ul style="list-style-type: none"> o It’s okay to do things different than Dad/Granddad/etc. - Don’t be afraid to think outside the box o No two operations will be exactly alike - Look for competitive advantages/opportunities 			
<p>11. Other</p>			

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WORKSHEET 7: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM COMMODITY-SPECIFIC SKILLS – MAPLE SYRUP PRODUCTION

Check off which of the following skills you are interested in acquiring. How would you rate your skills (1 to 5) in each of those areas – assess your ‘skills rating’ at the start and end of the program?

1. Very experienced. I am confident that I can handle all aspects of this part of my farm.
 2. Comfortable. I have experience or training in all or most of the aspects of this part of farming.
 3. Moderate. I have experience or familiarity with most of the relevant skills.
 4. Somewhat familiar. I have experience or knowledge relating to some of the necessary skills, but not most.
 5. No experience. This aspect of running a farm business is completely new to me.
- X. Not applicable (for example: experience with livestock is not needed if you do not plan to raise animals).

KNOWLEDGE AND SKILLS	Skill Interest	Starting Level	Ending Level
<p>1. General Knowledge and Skills</p> <ul style="list-style-type: none"> - Diversified Income - Access to resources - How to read a hydrometer - Spread sheet that can take density of trees and distances it will help you calculate how much line and t's you'll need - Filtering and bottling - Machinery - \$5k to get small evaporator and small RO - you are in the business - Access land – trees should be 10” or greater for tapping 			
<p>2. Business Decisions</p> <ul style="list-style-type: none"> - RO machine for back yard (once you have over 25 taps) \$300 - \$500 investment you can make enough for your family and friends (or you can do 2 taps and a crockpot) - \$5k to start commercial - or - sell your syrup for a split (50/50) of the product to start developing your brand before buy your evaporator - allows you to dip a toe without a large investment - Most who start syrup own their own woodlot - Consider thinning a woodlot prior to installing lines - revenue may pay for tubing - open crowns sweeten sap - Over 100 taps you'll need to invest in a larger RO - \$2k - Minimum 40 trees per acre to be economically viable - 70 -80 TPA is better - 20 acres would give you a good base - Making maple syrup is fun - family and community events 			
<p>3. Management Considerations - Labor</p> <ul style="list-style-type: none"> - FFA/4-H program could develop a maple training program to get youth interested - Goal Setting - balancing farm and family goals - different life stages will change your goals - be prepared to pivot - Quality of life and Farm Stress - how to develop an internship program for your farm - labor intensive businesses are hard with babies 			

<ul style="list-style-type: none"> - Older farmers and syrup producers are more interested in buying sap and making syrup - need labor to get people out in the woods 			
<p>4. Business Decisions</p> <ul style="list-style-type: none"> - Run an enterprise budget-what is your break-even? - Marketing Options - Understand farm efficiency and profit drivers 			
<p>5. Useful Resources</p> <ul style="list-style-type: none"> - Ohio Maple Producers Association - vegetable growers are already at the market - maple is another product to sell - WVU Extension - Future Generations - has a list of service providers and funding sources - Veterans to AG - WV Maple Producers Association - Maple season ends before other farm work begins - Agency Support - WVDA - Conservation District – EQUIP for Invasive Control - WVU Division of Forestry 			
<p>6. Friendly Advice</p> <ul style="list-style-type: none"> - Good for farm-diversification strategies since maple season ends before other farm work begins - Unless you have 5k or more taps it is supplemental income - Training needed for forest farming/maple basics for service providers and for farmers - Building Meaningful mentor-mentee relationships - Learn to disagree nicely - Markets are hard to find for botanicals - Consider other non-timber forest products to diversify income - Work with a forester - get a forest management plan - It takes a LONG time to boil sap - RO cuts the time in half - plan to invest in one the second year - Don't spend a lot the first year - Tap your trees the first year and just sell the sap to someone who has a boiler - You should be able to pay off your initial investment in the first year as a sap producer 			
<p>7. Other</p>			

**WORKSHEET 8: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM
COMMODITY-SPECIFIC SKILLS – POULTRY EGG PRODUCTION**

(Adapted from Bulletin #1203, Farmer Skill and Knowledge Checklist: Poultry: Egg Production, UME Cooperative Extension Publications)

KNOWLEDGE AND SKILLS	Skill Interest	Starting Level	Ending Level
<p>1. Breed Selection</p> <ul style="list-style-type: none"> - Breed Selection - Be able to identify and list the characteristics you are seeking for your operation. - Be familiar with common breeds of egg-laying chickens. - Be able to visually recognize specific poultry breeds for egg production. - Know how to effectively select a breed. - Know how and where to order chicks or pullets. 			
<p>2. Brooding and Chick Care</p> <ul style="list-style-type: none"> - Know how to select a brooder. - Be able to properly set up, use, and maintain a brooder. - Know how to receive and properly handle day-old chicks. - Be able to effectively provide ample clean water to chicks. - Know how to select the proper feed for day-old chicks. - Know when and how to change the feed from starter to grower. 			
<p>3. Health</p> <ul style="list-style-type: none"> - Understand the importance of sanitation and biosecurity on your farm—and when visiting other farms. - Be able to develop a biosecurity plan for everyday practices and for a biosecurity emergency. - Be able to select and use suitable disinfectants. - Be familiar with pathogens common to poultry. - Be familiar with common poultry medications and their proper uses. - Be able to effectively observe birds in their flock and be able to recognize an unhealthy bird. - Understand the significance of reportable diseases such as Avian Influenza and know where to find information - Be able to detect external parasites on birds. - Be able to effectively prevent and/or treat specific external parasites (like mites, lice, and bedbugs). - Be able to detect and treat internal parasites in birds. 			
<p>4. Nutrition</p> <ul style="list-style-type: none"> - Be familiar with the daily nutrient requirements of egg-laying chickens. - Understand the nutritional value of different feed ingredients and be able to read and understand a feed bag label. 			

<ul style="list-style-type: none"> - Be able to select the proper feed for different ages and productive stages. - Understand the importance of clean water to egg-laying productivity and be familiar with methods to prevent drinking water from freezing. 			
<p>5. Pullets</p> <ul style="list-style-type: none"> - Know how to locate suitable sources of pullets. - Know how to effectively raise replacement pullets, including the use of effective feeding and lighting programs.; PI Test (BVD) 			
<p>6. General Management</p> <ul style="list-style-type: none"> - Be able to properly catch a bird without harm to the bird or yourself. - Know how to properly hold a single bird and several birds at one time. - Be able to effectively weigh single birds. - Know how to transport birds safely and humanely. - Be familiar with sources of poultry equipment. - Be able to detect evidence of whether rodents are active on the farm, and how to effectively control rodent populations. - Be able to detect signs of predatory animals and to effectively protect chickens from predators. - Be familiar with the causes of cannibalism, occurrence, and know how to prevent/correct it. - Understand the influence of light quality and quantity on egg production. - Know the causes of decreased egg production. - Be familiar with the practice of inducing a molt/rest to extend the productive life of a flock. 			
<p>7. Facilities</p> <ul style="list-style-type: none"> - Know the minimum space requirements for egg-laying chickens, and be able to calculate and provide adequate roosting space. - Be able to provide adequate nesting space, and be able to properly select and maintain nesting materials. - Understand the role of light in egg production. - Understand the importance of ventilation and air exchange in the hen house. - Know how to detect excess levels of ammonia, and how to control ammonia, moisture, and dust levels. - Be able to effectively maintain temperature for birds in extreme weather conditions. 			
<p>8. Manure</p> <ul style="list-style-type: none"> - Understand the nutrient value of chicken manure as fertilizer. - Understand how manure can pollute water supplies; be able to develop and implement a manure management plan. - Be able to effectively control filth flies. 			

<ul style="list-style-type: none"> - Know how to effectively use poultry manure, including how to properly compost it. 			
<p>9. Productivity</p> <ul style="list-style-type: none"> - Be able to recognize a productive bird by observing physical signs (such as the comb and legs). - Know how to maintain records for mortality, egg production, and feed consumption. - Know how to calculate annual production of a flock. - Be able to set and follow a standard for culling birds from your flock. - Be able to identify an unproductive egg layer by feeling the distance between the pubic bones, and between the pubic bones and the tip of the keel. - Know how to properly and humanely euthanize culled birds. - Know how to properly dispose of dead birds, or to compost chicken carcasses effectively. 			
<p>10. Food Safety</p> <ul style="list-style-type: none"> - Be familiar with the state regulations for selling eggs. - Be familiar with the grades and sizes of eggs as set by the USDA. - Be able to properly gather and clean eggs for use or sale. - Know how to safely store eggs. - Know how to recognize freshness in eggs. - Be able to select and discard eggs that are not suitable for human consumption. - Be able to explain the proper handling of eggs to customers. 			
<p>11. Marketing</p> <ul style="list-style-type: none"> - Be familiar with, and be able to explain to potential customers, the value of eggs as food. - Be familiar with, and be able to explain, the value of locally produced food. 			
<p>12. Economics</p> <ul style="list-style-type: none"> - Know how to evaluate the economics of egg production for each flock. - Be able to keep and use financial records effectively. - Know how to develop and use an enterprise budget for your operation. - Be able to determine the break-even point for your enterprise. - Be able to identify and implement money-saving or labor-saving practices. - Know how to transfer financial records to income tax Schedule F, "Profit or Loss From Farming." 			
<p>13. Other</p>			

**WORKSHEET 9: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM
COMMODITY-SPECIFIC SKILLS – AGRITOURISM**

KNOWLEDGE AND SKILLS	Skill Interest	Starting Level	Ending Level
<p>1. Assessing your Fit and Potential</p> <ul style="list-style-type: none"> - Assess your resources – what you have vs what you need (land, labor, infrastructure, capital) - Assess your goals – farm, agritourism and family <ul style="list-style-type: none"> o Develop Vision, Mission, Values, and Goals - Assess your skills and personality - Assess production and management changes needed to accommodate agritourism - Assess the suitability/attractiveness of your farm property - Assess the suitability/attractiveness of your region - Assess local land use regulations - Determine which permits, regulations and licenses are needed 			
<p>2. Business and Financial Planning</p> <ul style="list-style-type: none"> - Selecting the right agritourism entity – business structure - Selecting the right agritourism activity (farm stand, farm stay, farm tours, PYO, farm dinners, farm events, summer camps, etc) - Setting realistic income goals - Determine revenue sources - Developing appropriate agritourism enterprise budgets - Developing partial budgets to see impact on whole-farm goals - Determining break-even numbers for sales and visitors - Determine pricing strategies - Develop suitable record-keeping system to allow for filing taxes and for analysis later - Determine start-up and operational costs – assess financing needs and access to capital - Assess cash flow needs - Develop farm business plan - AGPLAN or SARE Business Planning Workbook 			
<p>3. On-farm Experiences</p> <ul style="list-style-type: none"> - Understand the importance of authenticity and ‘experiential travel’ - Providing safe environments and facilities - Providing enriching farmer-led educational experiences – best practices in how to conduct farm tours, lead classes, etc. - Providing self-guided educational experiences - Engaging customers - Enhancing sensory experience on your farm - Offering farm-based educational experiences for K-12 and incorporating STEAM curricula into on-farm activities - Providing ‘five-star’ customer service - Handling customer complaints 			

<p>4. Safety and Risk Management</p> <ul style="list-style-type: none"> - Understanding whole-farm risks - Developing a farm (and food if applicable) safety ‘action’ plan – identify hazards, risk potential, suggestions to minimize risk and action plan to implement - Maintain a safe environment <ul style="list-style-type: none"> - Entry, exit, parking - Building and bathrooms - Animals and visitors together - Farm Equipment, machinery and tools - Waterways and lagoons - Pesticides and chemicals - General safety measures and signage - Emergency planning and response - Understand responsibility under the Americans with Disabilities Act - Understand applicable food safety needs and protocols - Understand the 4 ‘P’s’ of liability and associated insurance needs - Understand ‘right to farm’ laws, and legal liability protection on you state - Safety education and training for employees - Safety education for visitors - Use of release agreements and waivers - Appropriate responses for pandemics and other emergencies 			
<p>5. Marketing</p> <ul style="list-style-type: none"> - Determine who is your target market - Determine your ‘market position’ and your unique ‘competitive advantage’ - Develop your ‘elevator pitch’ - What products and experiences will you offer - How will you price your offerings - How will visitors access your products and experiences - How will you communicate with your target markets to promote your offerings – traditional marketing, online marketing, social media marketing - Develop your agritourism ‘brand’ - Develop a written marketing ‘action’ plan - Building diversity, equity and inclusion 			
<p>6. Employees</p> <ul style="list-style-type: none"> - Recruiting, training and compensating suitable employees - Handling customer complaints - Soliciting customer feedback - Managing quality of life, farm stress and mental health for all 			

<p>7. Partnerships and Alliances</p> <ul style="list-style-type: none"> - Develop a 'competitor matrix' - Turning competitors into collaborators or partners - Understanding and engaging in 'agritourism clusters' - Understanding 'business partners' – other businesses, tourism partners, other agencies (Extension, WVDA) - Resources available 			
<p>8. Checklists</p> <ul style="list-style-type: none"> - Agritourism Potential 'Self-Assessment' - Agritourism Animal Safety Assessment - Agritourism Emergency Response & Liability Assessment - Agritourism Employee Assessment - Agritourism Operation Food Safety - Agritourism General Farm Safety Assessment - Agritourism Marketing Assessment - Agritourism Parking & Traffic Assessment - Farm Accident/Incident - Conducting a Farm Tour or Class - Considerations for Agritourism Operations During the Covid19 Pandemic 			
<p>9. Other</p>			

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**WORKSHEET 10: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM
COMMODITY-SPECIFIC SKILLS – OUTDOOR PRODUCTION (VEGETABLES)**

KNOWLEDGE AND SKILLS	Skill Interest	Starting Level	Ending Level
<p>8. General - Knowledge and Skills</p> <ul style="list-style-type: none"> - Goal – to diversify income - Access to resources (land, water source, etc.) - Ability to use hand tools and harvesting equipment - Ability to use spreadsheet or other method to keep records - Knowledge related to vegetable production - Understand how to read seed catalog (days to maturity, days to harvest, frost date or when to plant) - Knowledge of the market in your area (develop a market BEFORE you plant, know what you can sell and to whom) - Variety selection – be able to choose what appears to be the best fit for your market that your environment can provide 			
<p>9. Production Decisions/Issues</p> <ul style="list-style-type: none"> - Cost of different land plots (different locations, rent/buy) - Access to water - Current soil fertility - Crop specific pH and nutrient adjustment - Mulching, use of plastic or other ground cover - Row covers or other season extension techniques - Creating, using and storing compost - Selecting crops - Variety selection - Crop rotation - Succession planting, days to harvest, intensive production - Disease prevention, management & treatment - Insect/pest prevention, management & treatment - Storing pesticides and fertilizers appropriately - Pollination issues for some crops 			
<p>10. Management Considerations - Labor</p> <ul style="list-style-type: none"> - Goal Setting - balancing farm and family goals - Different life stages will change your goals - be prepared to pivot - Quality of life and Farm Stress - Affordable labor – what is the going rate for your area for the tasks you need completed? - Do you need to provide something additional? (housing, restrooms, insurance) - Employee training - Food safety considerations (handwashing facilities, restrooms, safety training, etc.) - Seasonal labor for planting and harvest 			

<ul style="list-style-type: none"> - Supervising employees/crews - Dealing with customers - Dealing with farm visitors - Record-keeping (labor, employees, payroll taxes and/or self-employment taxes?) 			
<p>11. Business Decisions</p> <ul style="list-style-type: none"> - Run an enterprise budget-what is your break-even cost? - Marketing Options (direct sales, CSA, farmers market, etc.) - Understand farm efficiency and profit drivers - Property – Renting v/s Buying (what to look for, what to avoid) - Investing in new equipment, expanding with new products, value adding, buy land (always do an enterprise budget) - Record keeping & accounting procedures - Emergency & safety procedures - Calculating/comparing cost of different pieces of equipment compared to useful life - Understanding Profits and Profit margins (Costs versus selling price) - Registering as a business, including types of structures for tax and legal purposes - Registering for the farm sales tax exemption 			
<p>12. Equipment & equipment considerations</p> <ul style="list-style-type: none"> - Tractor and walk-behind equipment – how to use effectively and safely - ATV or UTV - Trailers, carts, wagons, wheel barrows - Hand tools - Water equipment (irrigation, sprinklers, etc.) - Sprayer and sprayer calibration - Harvesting equipment - Implements & attachments - Repairs & maintenance - Storage or cold-storage as part of the post-harvest process 			
<p>13. Useful Resources</p> <ul style="list-style-type: none"> - WVU Extension and WVSU - WVDA - Agency support - NRCS and FSA - Soil Conservation District - Vegetable growers at your farmers market - WV Farmers Market Association - WV Food and Farm Coalition 			

14. Friendly Advice

- Farm-diversification – never rely on a single crop in case of crop failure
- Building Meaningful mentor-mentee relationships
- Consider value added and specialty crops
- Farm to school and institutional markets are growing
- Consider the labor and initial investment vs the expected yield.
- Agroforestry crops
- Intercropping
- Production Planning
- Crop rotations
- Succession Planting
- Crop insurance – there is a brand new option for crop insurance under RMA that is supposed to be made for direct marketers (It new as of this year, so I don't know what the feedback is on it yet as to whether the paperwork is overwhelming for the payout or not.) Specifically, for straight vegetable production, Whole Farm Revenue or NAP through FSA would be good options to look into, but for diversified operations with livestock other options should also be considered.

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OTHER COMMODITY-SPECIFIC SKILLS-SETS IN PROGRESS

- **WORKSHEET 11: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM COMMODITY SPECIFIC SKILLS – INDOOR (HIGH-TUNNEL) PRODUCTION**
- **WORKSHEET 12: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM COMMODITY SPECIFIC SKILLS – ORCHARD AND SMALL FRUIT PRODUCTION**
- **WORKSHEET 13: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM COMMODITY SPECIFIC SKILLS – SMALL RUMINANT PRODUCTION**
- **WORKSHEET 14: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM COMMODITY SPECIFIC SKILLS – SWINE PRODUCTION**
- **WORKSHEET 15: BEGINNING FARMER ON-FARM MENTORSHIP PROGRAM COMMODITY SPECIFIC SKILLS – BACKYARD POULTRY PRODUCTION**

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DOCUMENT 1: SAMPLE ON-FARM MENTORING PARTNERSHIP AGREEMENT

The WV On-Farm Mentorship Program is in the process of developing an agreement similar to the one below from the Ag Apprenticeship Learning Network.

SAMPLE MENTORING PARTNERSHIP AGREEMENT

Goals:

We will assess the incoming skill and knowledge level of the learner and use the program's curriculum and experiential opportunities to develop professional agrarian skills in the learner.

We will actively build a mentor/learner relationship that supports this learning and provides labor to the host site that applies this learning.

We will develop a professional network of people and organizations that will help the learner move forward professionally at the end of the apprenticeship.

We have discussed the process by which we will collaborate on the development of a learning plan. In order to ensure that our relationship is a mutually rewarding and satisfying experience for both of us, we agree to the following:

1. Learning plan

- We will review the curriculum and skill sheets and set up specific learning trajectories built into the regular work environment.
- We will identify specific skills that require additional one-on-one instruction or mentoring and opportunities for corresponding mentorship.
- We will regularly communicate about the learning process, identify areas in need of more focus, and jointly create strategies to foster this learning.
- We will consider the long-term professional goals of the learner when assessing focus areas.
- Mentor will assist learner in creating a holistic goal to be used as part of the curriculum and as a prompt for identifying useful professional contacts and post-apprenticeship opportunities.

2. Additional learning opportunities

We have identified, and will commit to, the following specific opportunities and venues for learning beyond the on-site curriculum:

- Learner will attend the host organization's annual conference.
- Learner will attend two land restoration workshops.
- Learner will accompany mentor to meetings with the Bureau of Land Management and Forest Service.
- Mentor will introduce learner to key resource people in the community so learner can set up learning days with them.

3. Confidentiality

Confidentiality for us means that what we discuss remains between us. Mentor and learner will agree ahead of time whether specific information is to be shared with anyone else.

4. Ground rules for the relationship

Our ground rules will be:

- We will meet every Monday morning to discuss the work week, priorities, deadlines, etc..
- We will be on time to meetings and will refrain from answering the phone, email, etc. during these meetings unless an emergency arises.
- We will bring up conflict or problems when they arise, rather than waiting and letting the problems worsen.
- We will listen respectfully and compassionately to one another and offer our ideas and labor to benefit each other and the business and learning environment.

5. Plan for feedback and evaluation

Check ins and skill sheet meetings will be scheduled as needed, but no less frequently than a check in every 3 weeks and a skill sheet meeting every 2 months. We will come to these meetings prepared, on time, and with open minds ready to both give and receive honest, helpful feedback to one another.

[Document 2: 2022 farm Fellow Agreement \(Adult\)](#)

[Document 3: 2022 Farm Fellow Agreement \(Youth\)](#)

[Document 4: 2022 Mentor Agreement \(Adult Only\)](#)

[Document 5: Farm Fellow Application Form](#)

[Document 6: Mentor Application Form](#)

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