Farmland Access
— Financial Decision-Making Tool —
Assessing Risk, Affordability, Readiness & Land Access Options

A Land Stewardship Project Publication
www.landstewardshipproject.org
This Farmland Access Financial Decision-Making Tool — Assessing Risk, Affordability, Readiness and Land Access Options resource was developed with financial support by the United States Department of Agriculture, National Institute of Food and Agriculture.

Grant Recipient: Land Stewardship Project

Authors: Cree Bradley, Worksong Services
Karen Stettler, Land Stewardship Project

Additional Support: Farm Beginnings Collaborative

FARMroots, GrowNYC

Areas of this resource were adapted with permission from FARMroots, GrowNYC’s publication GrowNYC Farm Beginnings: Whole Farm Planning Course, and other resources shared by Farm Beginnings Collaborative members, through a partnership arrangement of the Farm Beginnings Collaborative.

The development of this resource was supported through a grant from the USDA’s Beginning Farmer and Rancher Development Program to support the work of the Farm Beginnings Collaborative. Use of these materials is by permission only from a member of the Farm Beginnings Collaborative (FBC). For a full list of FBC members, see page 53 or visit http://farmbeginningscollaborative.org. You may also contact LSP’s Amy Bacigalupo at 320-269-2105 or at amyb@landstewardshipproject.org.

This Land Stewardship Project publication is available at www.landstewardshipproject.org or by calling 507-523-3366.
Farmland Access
— Financial Decision-Making Tool —
Assessing Risk, Affordability, Readiness
& Land Access Options

A Land Stewardship Project Publication

Authors:
Cree Bradley, Worksong Services
Karen Stettler, Land Stewardship Project

With Support From:
— U.S. Department of Agriculture, National Institute for Food & Agriculture—
— Farm Beginnings Collaborative—
— FARMroots, GrowNYC —
# Table of Contents

## Introduction

---

## SECTION I: Visioning

- I-A: Identifying the Farm Dream
- I-B: What is Your Resource Base?
- I-C: Clarifying Values
- I-D: Visioning through a Holistic Goal
- I-E: Visioning Key Questions and Next Steps

---

## SECTION II: Experience

- II-A: Skills Assessment
- II-B: Land Access Experience Profiles
- II-C: Experience Key Questions and Next Steps

---

## SECTION III: Finances

- III-A: Land Affordability and Readiness Assessment
- III-B: Record-Keeping
- III-C: Financing
- III-D: Financing Key Questions and Next Steps

---

## SECTION IV: Land Assessment

- IV-A: Core Enterprise Features
- IV-B: Reading the Land
- IV-C: Land Assessment Key Questions and Next Steps

---

## Resources

---

## Farm Beginnings Collaborative
Introduction

The Land Stewardship Project (LSP) believes that rural communities where more farmers are making a living on the land are more vibrant. Farming communities are stronger when beginning farmers have an opportunity to contribute fully. All too often, beginning farmers are being left behind as high land prices drive more farmland consolidation and block new farmers from having a chance to develop a viable farm. In the short-term, we need to do whatever is within our grasp to support beginning farmers so that they can gain access to land. In the long-term, we must prioritize policies and programs that invest in small- and moderate-sized farms, as well as local and regional food systems.

LSP is working to achieve both short-term and long-term results when it comes to getting more farmers on the land. LSP’s Farm Beginnings Program has helped over 1,000 beginning farmers name their vision, acquire the tools and instruction they need to make their farming dreams a reality and bring beginning farmers into support networks as tools to help them succeed. Consistent with what we are seeing in our communities, our graduates have identified affordable access to land as one of their main barriers.

We have also learned from the real-life experiences of beginning farmers. In some cases, beginning farmers have bought land that in the end was not a good fit for their farm business due to poor soil health, distance from markets or other physical factors. We have seen beginning farmers overextend themselves financially to purchase land to the point where they find themselves not having enough funds remaining to invest in the development of the farm. Beginning farmers often underestimate the amount of work it takes to create two full-time incomes from the farm, and struggle to keep up with the work and farm payments. Other beginning farm families working with established farmers to transition the farm have run into irreconcilable differences related to farming practices, resulting in the beginning farmers needing to break off the relationship. How can these scenarios be prevented?

For some beginning farmers, LSP’s Farm Beginnings course helps prepare them to make sound decisions when it comes to land access. But we have recognized that we reach limited numbers of farmers through this year-long course. To reach many more beginning farmers, the Farm Beginnings Program developed the Farmland Access Financial Decision-Making Tool and companion workshop.

The Farmland Access Financial Decision-Making Tool is a resource that covers four critical areas of decision-making: 1) Visioning, 2) Experience, 3) Finances and 4) Land Assessment. Considering these critical areas of decision-making will not only help with land access, but will also increase knowledge and skills that these farmers can apply to other critical decisions. Beginning farmers are passionate and that is good. However, getting started “no matter what” often results in problems that are damaging to relationships, family finances and, in some cases, the land itself. We want beginning farmers to be successful and are committed to providing resources, like this one, to encourage farmers to slow down and do their homework.

Publication author Cree Bradley brings to this effort an extensive Holistic Management background as well as experience as a farmer. This resource benefits from her breadth and depth of knowledge and experiences. The development of this resource was supported through a grant from the USDA’s Beginning Farmer and Rancher Development Program to support the work of the Farm Beginnings Collaborative. Use of these materials is by permission only from a member of the Farm Beginnings Collaborative (FBC). For a full list of FBC members, please visit http://farmbeginningscollaborative.org. You may also contact LSP’s Amy Bacigalupo at 320-269-2105 or at amyb@landstewardshipproject.org.

Suggested Use of Tool

The Farmland Access Financial Decision-Making Tool is organized in sections—Visioning, Experience, Finances and Land Assessment—as four primary areas that are influential in the decision-making process around land access, affordability and readiness. The tool as a whole functions well as a chronological “workbook” that provides education and planning activities to help make progress and aid in decision-making. We encourage prospective and beginning farmers to work through the tool from beginning to end. All activities should provide insights and will be useful as you move forward towards your farm dream.

Alternatively, through the lens of “financial affordability and readiness,” the flowchart in Section III-A on page 29 may provide perspective on what sections and activities may be useful to explore, depending on your financial situation, experience and goals. It is not a perfect flowchart, but is intended to help steer you in a direction for future planning.
SECTION I: Visioning

Visioning
Gaining land access for farming, especially if land access equals land ownership, will be one of the biggest decisions (with some of the greatest implications) you will make as you work towards achieving your farm dream. Your choice of land will not only affect your production potential. Are there enough acres and does the land have the right ecosystem and soil capacity to ultimately serve your strategic farm business and financial goals? It will also have significant influence on your personal and/or family quality of life. Does the land offer you a vision of home? Can you raise a family there? Do the nearby services and markets of interest (as well as the community) provide opportunities for you? Does the livelihood you can create support a sustainable farm business, while also financially contributing towards your household expenses? Can you afford this land, both in the future as your farm takes shape, but also now, during your early years of farming (and can you live with the compromises you may need to make in the interim while building the farm dream)?

These and other considerations around quality-of-life are as important as the land’s production capacity itself, specifically the affordability of the land as it ties intricately to meeting quality-of-life goals (our capacity to have a good quality-of-life is often diminished when too much financial stress and debt hinders the ability to focus on other important values). Ultimately, our choice of land and how much we invest in it may make or break the farm dream and the vision for the life we hope and work to create. While nothing in life is static, and change is always an option, because land comes at such a high financial cost and commitment, land access decisions should be well planned, and made in line with the vision we have for our life and our happiness.

Thinking with our end vision in mind can potentially challenge our notions and considerations around land affordability and the strategic pathway and time-frame we utilize for accessing it. Beginning farmers report that had they been more financially prepared, done a better land assessment, considered their experience more, and most importantly, had a clearer understanding of their vision and the quality of life they hoped to achieve, they may have opted for a different land outcome, even if that meant a changed time-frame or pathway to get there.

Crafting a plan about your future in farming, and considering the land you will need to access, starts with visioning — identifying your agricultural interests (the farm dream!), the resource base you have access to, and your values and how they influence your choices. Once explored, you can use this foundational information in the development of a VISION (also called a HOLISTIC GOAL), to help guide and influence decisions, which includes decisions around land access and affordability.
Section I-A: Identifying the Farm Dream

Describe what your farm (and life) will look like by considering these questions below. Don’t think about obstacles in the way of your farm dream, regardless of how real they may be. By keeping your mind open and free of obstacles, you can develop a more full description of what you’d like to achieve in the future, especially pertaining to your land needs, which can provide an incentive for making good decisions in the present and provide motivation for finding ways to make the farm dream a reality, even in the face of obstacles.

➔ Where is your farm located? Is it a rural or urban area? How close are you to other people, farmers, your community, your market? What type of geography surrounds you — lakes, rivers, mountains, prairie, trees?

➔ What farm enterprises are you interested in — vegetables, fruit, livestock, fiber, flowers, perennials, forest products, bees, hazelnuts, grains, other? What excites you as a core enterprise? Complimentary enterprises?

➔ How much space (acreage) does your farm/enterprise need? How much space does your family need?

➔ Is your fertility coming from on-farm or off-farm? Do you need more space to accommodate a fertility plan?

➔ Are there buildings or processing facilities — a barn, greenhouses, outbuildings for storage, a family home, cold storage, a certified kitchen, high tunnels, post-harvest handling facilities, other?
SECTION I: Visioning

Section I-A: Identifying the Farm Dream (continued...)

→ Do you need any special equipment or infrastructure — tractors, implements, fencing, other? Is there access to water? Electricity? Other utilities?

→ Are there specific methods, practices or philosophies of farming and/or business you want to use? What would someone else see, notice, and/or experience when they encounter your farm?

→ Will your farming activities be a hobby or a business, in other words, a farm for self-sufficiency, a hobby farm, a market garden, a part-time farm, or a livelihood farm? Are financial goals for the farm to provide part or all of your individual or family’s income? Will there be off-farm income (yourself, your partner/spouse)?

Mapping out a farm dream through “cognitive mapping,” an exercise of describing your farm dream through art or drawing, can be a good exercise for visual thinkers and dreamers.
Section I-B: What is Your Resource Base?

In the previous section, we advised that you create your farm dream without heed to obstacles. Dreams should be bold and clearly visualized. Thinking without obstacles helps frame our minds towards future long-term needs and goals—specifically, about our land choice, size and its capacity for financial stability and environmental sustainability while meeting our quality-of-life goals. In making more immediate decisions that can help us reach our long-term dream, especially when it pertains to land access, it is important, and helpful, to identify and take stock in “what is” before we can begin to implement “what we want.” Our **RESOURCE BASE**, also called the **WHOLE UNDER MANAGEMENT**, is an inventory of our assets, the **SKILLS, MONEY, PEOPLE** and **THINGS** we have access too. Being clear about the resource base that is available to you can help you take full advantage of what you’ve got, while also keeping in check a pathway forward that is strategic while not getting ahead of oneself, aiding in good decision-making about land access, and other decisions pertaining to your farm dream.

Complete a **RESOURCE BASE INVENTORY**, starting with identifying who the decision makers are in your household or team, followed by listing the resource base associated with decision makers. An example is below.

<table>
<thead>
<tr>
<th>Decision Makers</th>
<th>Skills</th>
<th>Money</th>
<th>People</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam (S) — Husband</td>
<td>3 years diversified vegetable production experience via internship/employment (S)</td>
<td>Assets: $12K savings, $48K stable off-farm income, $6K credit card limit, good credit card rating</td>
<td>Family: Sam’s dad owns tractors and some implements (eager to help), Julie’s sister is a tax accountant (offered advisement)</td>
<td>Strong work ethic (J/S), creative thinker (S), enjoy the outdoors (J/S)</td>
</tr>
<tr>
<td>Julie (J) — Wife</td>
<td>Design (in-house marketing materials) (J), financial management (J), computer (J/S), carpentry/building (S), green-thumb (J)</td>
<td>Liabilities: $3K CC debt (1.5 years planned payoff), $6K car loan (2 year payoff), $27K student loan, $45K household budget</td>
<td>Current employer is supportive (willing to set-up employee incentive program as market for vegetable farm shares)</td>
<td>8 x 12 greenhouse, pick-up truck w/topper, Ford 8N (gift from dad), computer, tools, good local farm and feed business</td>
</tr>
</tbody>
</table>
SECTION I: Visioning

Section I-B: What is Your Resource Base? (continued...)

- Decision Makers
- Skills
- Money
- People
- Other
Section I-C: Clarifying Values

Your VALUES reflect what you want in life based on what is most important to you: what gives your life meaning, what makes you happy. Clarifying your values in a deep and intentional way is instrumental in creating a VISION, also called a HOLISTIC GOAL, that can serve as a compass for decision making.

Studies show that happiness and contentment don’t correspond to how much money one makes or how many possessions one has. These things don’t guarantee happiness. Knowing what you truly VALUE, and creating a life that allows you to live according to these values, contributing to what you think is important, is what makes people feel good about themselves and their place in this world.

Deep down inside, what is most important to you when it comes to FAMILY, WORK, HEALTH, MONEY, SPIRITUALITY, COMMUNITY, RELATIONSHIPS, SELF-EXPRESSION and CONTRIBUTION? What sort of qualities do you want to cultivate as a person? What kind of relationships do you want to have with your family, your neighbors, your employees? What values are elevated and how do you express them as a VISION for living the life you love and are working towards? When values are clearly expressed in a vision, they serve as leading principles that can guide us and motivate us as we move through life.

Values are not the same as objectives (or goals). Values are directions we keep moving in, whereas objectives are what we want to achieve along the way. A value is like heading north, a goal is like the river or mountain or valley we aim to cross while traveling in that direction. Objectives can be achieved or “crossed off,” whereas values are an ongoing process. For example, if you want to be a loving, caring, supportive partner, that is a value — an ongoing process. If you stop being loving, caring and supportive, then you are no longer a loving, caring, supportive partner; you are no longer living by that value. In contrast, if you want to get married, that’s an objective — it can be “crossed off” or achieved. Once you’re married, you’re married — even if you start treating your partner very badly. If you want a better job, that’s an objective. Once you’ve got it, the objective is achieved. But if you want to fully apply yourself at work, that’s a value, an ongoing process.
Section I-C: Clarifying Values (continued…)

What are the most important values in your life? Think about the values you cherish most. In the space below, identify three of your deepest held values. Once identified, contextualize those values by describing what each value means — how do you define the value, how does it look when expressed in your life?

♥ Value: __________________________________________

Value Defined: ______________________________________

♥ Value: __________________________________________

Value Defined: ______________________________________

♥ Value: __________________________________________

Value Defined: ______________________________________

♥ Value: __________________________________________

Value Defined: ______________________________________
Section I-D: Visioning Through a Holistic Goal

Once you’ve embarked on a process of clarifying your VALUES, elevating the most important things that give meaning to your life, now you can begin to write a VISION, or a HOLISTIC GOAL, that serves as a compass to guide farm, personal and family decisions. A HOLISTIC GOAL is created as a way to respond to life in a proactive way based on one’s values (creating the life we want), rather than responding to life in a reactionary way, without any thought to the bigger picture (reacting to things we don’t want).

A HOLISTIC GOAL is a set of three statements describing…

Quality of Life

Quality of Life statements are expressions of VALUES that have been deeply and intentionally explored. How do your VALUES shape the quality of life you want? Examples:

➔ We are RESOURCEFUL, making use of the people, natural resources and things that are around us.
➔ We plan for FINANCIAL SECURITY with a manageable level of debt.
➔ We experience HAPPINESS in our lives through off-farm play (VALUES are in all caps).

Commitments (also called “Forms of Production”)

Things we must COMMIT TO in order to produce our expressed QUALITY-OF-LIFE values. Example:

➔ We take stock in what people, natural resources and things are around us. We consider using our own food, fiber and other resource options before outsourcing (ties back to RESOURCEFUL value).

Future Resource Base

What the vision looks like in the form of one’s LAND, one’s BEHAVIOR (also called PEOPLE) and one’s COMMUNITY, in order to sustain one’s QUALITY-OF-LIFE for years to come. Examples:

➔ We improve soil fertility, encourage biological diversity, and are stewards of the overall health of our land. We strive to keep our soil covered, effectively harvesting the sun’s energy (ex. LAND).
➔ We are seen as authentic, honest and trustworthy people (ex. BEHAVIOR).
Section I-D: Visioning Through a Holistic Goal (continued)

This **HOLISTIC GOAL** visioning work can be the most difficult and rewarding farm planning many do. It forces you to get very real with yourself and your partner(s). It helps clarify who we really are at heart and what we cherish most. And it opens up farm and family decision-making to those who need to be involved.

*A HOLISTIC GOAL fundamentally becomes your constitution.*
*It is the solid expression of your values, which is the vision of your life.*

— Cree Bradley

**DECISION MAKERS** in one’s family/farm partnership “team” (typically spouses/partners, or farm business partners) need to be involved in creating the **HOLISTIC GOAL** with a shared understanding of and emphasis on the values of all those involved. If a family has children, long-term employees or other strong relationships that impact decisions, while these individuals may not have “veto-power” with farm or family decisions, it may be beneficial to involve them in a way that decision makers are comfortable with, so there is strong buy-in and dedication to the farm and family they are a part of.

Don’t worry about getting your Holistic Goal right the first time. Just begin. Get something down on paper so you can begin using it. It may feel like a draft or temporary vision until one day, after enough clarifications have happened, it feels like a real and powerful working vision. Regardless, a Holistic Goal is always a work in progress — one that should be annually reviewed and edited — as values and needs change. Finally, remember that the commitments we make towards our values are not the same as specific **TASKS** and **STRATEGIES** (such as a specific enterprise choice like “dairy cows” or a specific production activity like “no-till farming”). Tasks and strategies are NOT part of a Holistic Goal. The specifics of our actions should be tested towards our Holistic Goal to make sure the decisions we make for the farm, for our land and for our life are in line with our values.

Begin to draft a **Holistic Goal** (template follows) by returning to your value clarification work and continue contextualizing (defining) the values that resonate most deeply in your life. Using these values, create your **Holistic Goal** starting with **Quality-of-Life** statements, followed by **Commitment** statements. For every value expressed in **Quality-of-Life**, there should be at least one **Commitment** statement for the value. Eventually, work on your **Future Resource Base** to include expressions of your behavior, what type of community you envision, and how your land looks and functions.
SECTION I: Visioning

Section I-D: Visioning Through a Holistic Goal (continued…)

Quality-of-Life—Expressions of our VALUES that have been deeply and intentionally explored.

Commitments—Things we must COMMIT TO in order to produce our expressed QUALITY-OF-LIFE.

Future Resource Base—What the vision looks like in the form of our LAND, our BEHAVIOR and our COMMUNITY, in order to sustain one’s QUALITY-OF-LIFE for years to come.
Section I-E: Visioning Key Questions

1. How does your farm dream, when including the geography and size of land for your enterprise ideas and your financial goals (hobby, part-time, livelihood farm), relate to how you think about land access and affordability?

_________________________________________________________________________________
_________________________________________________________________________________

2. Is your farm dream clear enough that you have a strong idea about your long-term land needs? What do you need to research to better clarify your farm dream?

_________________________________________________________________________________
_________________________________________________________________________________

3. Does your resource base inventory contain enough financial and non-financial assets (skills, people, other things) to reduce your risk by ensuring more success as a farmer once on land?

_________________________________________________________________________________
_________________________________________________________________________________

4. Why is a Holistic Goal relevant in making big decisions, such as a land access and affordability decision?

_________________________________________________________________________________
_________________________________________________________________________________

Section I-F: Next Steps & Notes

Did you complete these SECTION I Visioning activities? What are your Visioning activity next steps?

☐ Farm Dream

☐ Resource Base Inventory

☐ Value Clarification

☐ Holistic Goal

13  SECTION I: Visioning
SECTION II: Experience

SECTION II: Experience
SECTION II: Experience

... Skills Assessment, Land Access Experience
Profiles, Key Questions, Next Steps

Your experience with PRODUCTION, ANIMAL HUSBANDRY and FARM BUSINESS MANAGEMENT, and the skills you possess in each area, play a key role in assessing risk when making farmland decisions. Having real world farming and business experience can be the difference between stepping onto land, starting farm enterprises, and scaling them up towards financial viability that can cash flow the farm, contribute towards the land expense, contribute towards your livelihood, and ultimately, a good quality-of-life — versus stepping onto land, potentially biting off more than you had financially bargained for, getting stuck with high overhead costs, struggling with cash flow, and not having enough income, time or energy to invest in the wealth-generating infrastructure needed to move the farm forward. These are all things that can lead to debilitating effects on quality-of-life. The latter description is a very harsh reality, but unfortunately, a reality none-the-less for many beginning farmers.

It is not necessary to own land to farm. Land leases or farm incubators, micro-farming at community garden plots and backyard gardens and plots made available through farm internships or apprenticeships provide land access options. Conversely, it is not necessary to have production and farm business management experience to buy land. Everyone needs shelter and most pay rent or have a mortgage for the shelter they inhabit. An aspiring farmer with limited or no experience and the right financial resources and stability can purchase land that can become their farm. While the options remain varied regardless of experience, the results and success may differ.

Accessing farmland — whether through ownership or lease, a farm transition, through a farm incubator, or simply by micro-farming on a small plot in the backyard or a community garden—is a choice. Each option offers positive outcomes, learning opportunities and potential unintended consequences. This EXPERIENCE section will look at these farmland access options through the filter of production, animal husbandry and farm business management experience, assessing your financial production and marketing skill sets, and how they may relate to land access options.
SECTION II: Experience

Section II-A: Skills Assessment

Complete the skills assessment below. Show your sense of experience with each skill using this rating scale:

➔ 1-rating of “no experience” — you’ve never been exposed to the skill.

➔ 2-rating of “limited experience” — you’ve been exposed to the skill through theory and education, but with no real hands-on, practical experience.

➔ 3-rating of “moderate experience” — you’ve been exposed to the skill in a hands-on way but with limited practice using the skill. The hands-on exposure provides some confidence in applying the skill on your own, but the results of your actions will likely require a steep learning curve towards proficiency.

➔ 4-rating of “some competency” — you’ve been exposed to the skill in a hands-on way and have had some practice that would enable immediate implementation using the skill, with the potential for either immediate proficiency or a learning curve towards proficiency.

➔ 5-rating of “advanced competency” — you’ve been exposed to the skill in a hands-on way and have had significant practice that would enable immediate implementation and relative success using the skill.

---

<table>
<thead>
<tr>
<th>Production Skills</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing a crop production or grazing plan.</td>
<td></td>
</tr>
<tr>
<td>Keeping good crop production, livestock, and/or grazing records.</td>
<td></td>
</tr>
<tr>
<td>Implementing conservation practices and managing fertility.</td>
<td></td>
</tr>
<tr>
<td>Cover-cropping.</td>
<td></td>
</tr>
<tr>
<td>Managing pests, weeds and diseases in crops and/or livestock.</td>
<td></td>
</tr>
<tr>
<td>Managing pastures.</td>
<td></td>
</tr>
<tr>
<td>Basic care of livestock—feeding, watering, manure management, housing, health.</td>
<td></td>
</tr>
</tbody>
</table>
### Production & Animal Husbandry Skills

<table>
<thead>
<tr>
<th>Skill</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock processing tasks such as milking, butchering, insemination.</td>
<td></td>
</tr>
<tr>
<td>Operating equipment and implements...safely!</td>
<td></td>
</tr>
<tr>
<td>Ordering seeds – quantity for production needs, companies to use.</td>
<td></td>
</tr>
<tr>
<td>Planting of crops to include succession planting.</td>
<td></td>
</tr>
<tr>
<td>Crop harvesting and post-harvest handling.</td>
<td></td>
</tr>
<tr>
<td>Building, maintaining and repairing infrastructure.</td>
<td></td>
</tr>
<tr>
<td>Maintaining and repairing tools and implements.</td>
<td></td>
</tr>
<tr>
<td>Knowledge of agricultural equipment and tools (what is a grain drill, why it is used).</td>
<td></td>
</tr>
<tr>
<td>On-farm biological and ecological observation and monitoring for land health.</td>
<td></td>
</tr>
</tbody>
</table>

### Marketing Skills

<table>
<thead>
<tr>
<th>Skill</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market research and ensuring you have a market for your product.</td>
<td></td>
</tr>
<tr>
<td>Choosing marketing strategies such as wholesale, direct, farmers’ market, PYO, CSA.</td>
<td></td>
</tr>
<tr>
<td>Developing promotional materials (brochures, posters, business cards).</td>
<td></td>
</tr>
<tr>
<td>Advertising.</td>
<td></td>
</tr>
<tr>
<td>Selling farm products and services.</td>
<td></td>
</tr>
<tr>
<td>Selling yourself as a farmer (selling your values and vision to the customer).</td>
<td></td>
</tr>
<tr>
<td>Web design and creation.</td>
<td></td>
</tr>
<tr>
<td>Social networking (Facebook, e-marketing, e-newsletters).</td>
<td></td>
</tr>
<tr>
<td>Monitoring competition and market conditions.</td>
<td></td>
</tr>
<tr>
<td>Customer service</td>
<td></td>
</tr>
</tbody>
</table>
**Section II-A: Skills Assessment (continued...)**

<table>
<thead>
<tr>
<th>Financial Skills &amp; Other Farm Business</th>
<th>Mgt. Skills</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtaining credit or capital for farm start-up.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting up a bookkeeping system for accounting (QuickBooks, Quicken, Excel, other).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring financial transactions (budget to actual income and spending).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controlling financial transactions to bring actual income/expenses in line with plans.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creating an annual financial plan for both the farm and household.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring and analyzing an annual financial plan for both the farm and household.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paying bills.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invoicing customers for payments and following-up with collection as needed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizing records for annual tax filing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparing Schedule F for tax filing or acquiring a CPA to prepare taxes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparing financial statements — profit/loss, balance sheet, cash flow statements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managing debt.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decision-making around scaling up and economics of scale efficiencies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtaining operating credit to manage cash flow.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choosing a business legal structure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Researching and setting-up legal requirements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtaining permits, licenses and insurance, as needed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparing a farm safety plan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparing for labor needs and training/ supervising labor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complying with federal, state, county and township regulations (labor, food safety).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revising a whole farm plan, as needed, when the plan runs counter to goals.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section II-A: Skills Assessment (continued...)

Calculate and analyze your SKILLS ASSESSMENT results by completing the equation below.

Production & Animal Husbandry Skills:
How many of each rating did you receive in the production/animal husbandry section? In the box, enter the total number of ratings per rating box below for production/animal husbandry only.

Marketing Skills:
How many of each rating did you receive in the marketing section? In the box, enter the total number of ratings per rating box below for marketing only.

Financial & Other Farm Business Management Skills:
How many of each rating did you receive in the financial and other farm business management sections? In the box, enter the number of ratings per rating box for financial/business management only.
SECTION II: Experience

Section II-A: Skills Assessment (continued...)

Calculate your skills assessment results by totaling your ratings together per skill area, entering the total in the boxes below. Then add all skills areas together for a grand total. If your grand total score is:

→ 40 or less, your experience level is rated as “no experience.”
→ 41 - 100, your experience level is rated as “limited experience.”
→ 101 - 140, your experience level is rated as “moderate experience.”
→ 141 - 180, your experience level is rated as “some competency.”
→ 181 - 200, your experience level is rated as “advanced competency.”

Skills Assessment Results Summary:

Analyze your skills assessment results and record insights and next steps below.

What is your experience/competency level rated as: _________________________________

Actual experience/competency could shift up or down along the skills assessment continuum. Based on your result, do you generally agree with the experience/competency category assessed to you? Why or why not?

______________________________________________________________________________

What skill area is in most need of added experience?

______________________________________________________________________________

______________________________________________________________________________

Review the Land Access Experience Profiles on the following pages to explore land access options and your experience level related to appropriate land access points of entry.
SECTION II: Experience

Section II-B: Land Access Experience Profiles

Micro-Farming

Micro-Farming Options:
➔ Backyard garden plot.
➔ Community garden plot.
➔ On-farm land use benefit through farm internship or employment (when a farm mentor or employer allows use of their land for your own production).

Description
Gaining farm experience on a micro-scale can produce valuable lessons without exposing one to immense financial and emotional risk. Micro-farming is a sound land access risk management strategy for beginning farmers with limited production and/or farm business management experience.

Positive Outcomes
Many farmers have gotten their start by cultivating their own large backyard garden, a community garden plot, or farming a plot of land provided by their employer where they work or intern on a farm (a unique land access entry point as the farmer often provides tools, time and mentorship as part of the benefit). Large urban and country lots can provide ample space to learn valuable horticultural and some animal husbandry lessons, explore enterprise interests, and, if the plot is sufficiently sized, provide enough capacity for sales at local farmers’ or other markets. A ¼ acre of vegetables, a coop of 15-25 chickens, or a few fruit trees will provide valuable data and hands-on experience that can be applied to your farm and land access plan.

Unintended Consequences/Things to be Mindful Of
Practices, systems, expenses, time and energy that have been developed on a smaller scale may not translate or be sustainable on a larger scale, therefore success found micro-farming doesn’t necessarily mean success on a bigger scale. While gaining hands-on micro-farming experience, continue your education by engaging in other diverse on-farm experiences. Additionally, if you don’t own the land, you can be exposed to instability, and financial investments you make in the property or soil may be lost when your land access needs and plans change. Finally, if your farm experience level is a little advanced, while micro-farming offers a land access option, your enhanced skills may need the greater challenge that a more traditional farm scale might provide.

Experience Recommendation: No to Limited Experience 1-2
Section II-B: Land Access Experience Profiles

Farm Incubation

**Minnesota Farm Incubator**

**Land Access Resources:**

- Big River Farms, Marine on St. Croix, Minn.
  www.mnfoodassociation.org
- Farley Center, Verona, Wis.
  http://farleycenter.org

**Description**

Farm incubators provide an entry into farming by tackling the high-cost, high-risk nature of agriculture through a collaborative farm and land access model. Many farm incubators offer access to their resources on an interim basis (1-5 years) to help actualize farm starts. Some experience is recommended to make the most of the opportunity.

**Positive Outcomes**

Farm incubators serve as a launching pad for farm businesses by providing access to land and supportive resources such as peer support, mentorship, training and/or access to infrastructure that help beginning farmers overcome barriers to entry. Such barriers include not having the capital for making a farmland investment, and lacking experience in working operations that could aid decision making and loan success for eventual investments. Through farm incubators, new farmers experience crop production (or engage in other enterprises) on a larger scale than a typical backyard setting, gaining knowledge, confidence and resources to act independently as a producer, yet with the support and oversight of a farmer network. While being supported, beginning farmers can acquire experience and the infrastructure they need to start their own operation, while also saving money or reducing debt, which will aid in the future affordability of farmland.

**Unintended Consequences/Things to be Mindful Of**

Tenants of farm incubators must adhere to the resource base of the property—the type of soil and nutrients for example—which may or may not be ideal for specific enterprise interests, and could create a skewed or frustrating production experience and results. Personal investments made in the property, such as amending the soil, may be lost when land access changes. And the time-specific horizon of an incubator may not be enough to prepare you for the next land access step. Use your interim time at an incubator wisely and strategically—plan for the future, save money, reduce debt—to be in a position to use your gained experience to take the next step towards your farm dream.

**Experience Recommendation: Limited Experience to Some Competency 2-4**
Farmland Lease

**Section II-B: Land Access Experience Profiles**

**Farmland Lease**

**Description**

Leasing land can be a great way for beginning farmers to get into agriculture without the high capital cost of purchasing land, while providing landowners a steady income from land they are not using.

**Positive Outcomes**

If you’re a beginning farmer, leasing land may be an effective way to overcome one of your greatest challenges to getting on the land—land access affordability. The right lease can offer secure, affordable and flexible access to land—and with some leases, access to buildings and other resources, such as water and fencing. Farmland leases provide a “win-win” for the lessee, lessor, land and community by keeping rural lands in agriculture and meeting the financial and farming goals of both parties involved. For beginning farmers with a moderate to advanced level of competency, and who are ready to start farming but lack capital for a land purchase, leasing can offer a long-term, low-cost opportunity to farm. Or it can offer a short-term strategic opportunity to make progress towards farm ownership goals, gaining valuable production and farm business management experience. Farmers can lease land while following a debt-reduction plan and acquiring the equipment and machinery they will need for their long-term needs.

**Unintended Consequences/Things to be Mindful Of**

Before entering into a lease, consider length of lease, cost, party responsibilities, restrictions and repercussions of default or dispute. Your land access needs may change as you gain experience. Weigh carefully the benefit of stability with a long-term lease versus adaptability with a short-term lease. Your operation may be subject to things outside of your control. A land lease likely will not allow permanent investments in a home or infrastructure, which could lead to frustration.

**Experience Recommendation:** Moderate Experience to Advanced Competency 3-5

---

**Midwest Land Access by Lease Resources**

- **LSP Seeking Farmers-Seeking Land Clearinghouse:** http://landstewardshipproject.org/morefarmers/seekingfarmersseekingland-clearinghouse
- **MOSES Land Link-Up:** https://mosesorganic.org/farming/land-link-up
- **MN and WI Landbin:** www.landbin.com
- **MN Department of Agriculture — MN Farm Link:** http://www2.mda.state.mn.us/webapp/props4sale
- **Toolbox for Leasing Farmland (lease samples):** http://landforgood.org/resources/toolbox/toolbox-farm-seekers
Section II-B: Land Access Experience Profiles

Farm Ownership

**Midwest Land Ownership Resources & Suggestions:**

- LSP Seeking Farmers-Seeking Land Clearing-house: http://landstewardshipproject.org/morefarmers/seekingfarmersseekinglandclearinghouse
- MOSES Land Link-Up: https://mosesorganic.org/farming/land-link-up
- MN and WI Landbin: www.landbind.com
- MN Department of Agriculture — MN Farm Link: http://www2.mda.state.mn.us/webapp/props4sale
- www.beginningfarmers.org/finding-land-to-farm

**Description**

These days, most beginning farmers in the U.S. do not inherit family farmland. Instead, many pursue purchasing land to start and grow their farm.

**Positive Outcomes**

In today’s high land value market, affordability of farm ownership is one of the greatest barriers to farm entry. Yet owning one’s farm remains a goal for many. Why? Farm ownership connects deeply with the independent nature of many farmers. It sidesteps the long-term land security drawbacks of leases and incubators, it retains/builds equity when investments are made which usually become part of a farmer’s long-term retirement/financial security plan, and it allows for greater capacity to display one’s values through day-to-day work and personal activities.

**Unintended Consequences/Things to be Mindful Of**

Farm ownership is and should rightfully be a goal for many beginning farmers. Unfortunately, there are very few startups that can cover a mortgage utilizing farm income alone, right from the start. As a beginning farmer, don’t leave your day job (not yet!)—make sure you are up for the challenges that come from working on- and off-farm, and consider that off-farm income may be a long-term component of your financial portfolio. Ask yourself—do you have a viable plan and does your experience allow you to assess your land’s capacity and actualize the plan? It is a big part of the equation.

**Experience Recommendation:** Some Competency to Advanced Competency 4-5
Section II-B: Land Access Experience Profiles

Farm Transition

Description

Farm transition happens when a retiring farmer passes the land and/or operation to another individual or family member, such as a child, neighbor, or a beginning or experienced farmer, with the farm continuing into the next generation.

Positive Outcomes

With hard work, thoughtful planning, clear communication and cooperation, farm transfers can provide a win-win for new and retiring generations as they work together to build and sustain the future of small- and moderate-sized family farms. Some farm transition benefits for the next generation have included: gaining access to land, infrastructure, assets and financing help, as well as learning from the experienced farmer. Benefits for the farmer have included: easing the transition into retirement; ensuring the continuity of a farm’s operation and legacy; bringing fresh energy and strong hands to work on the farm; and financial security.

Unintended Consequences/Things to be Mindful Of

Good communication is essential for a farm transition to be successful. That includes expressing very clear common goals and expectations, as well as laying out financial arrangements and a process with boundaries for addressing issues. A beginning farmer coming into an operation doesn’t necessarily mean that the retiring farmer wants the operation to change. Additionally, a beginning farmer must have a deep understanding and respect for the years of work, values and finances that went into the farm, and should anticipate a fair return to the retiring farmer. A transition is not free. Consider this question: can the farm support two families? Know the financial needs and how much capacity the land base can support.

Experience Recommendation: Some Competency to Advanced Competency 4-5

Midwest Farm Transition Resources:

➔ Most land transfers/farm transitions happen out of public view between people who have some connection (neighbors, family) or through farm support organizations and agencies that do farm transition work. Connect, network and talk with farmers and farm support organizations directly.

➔ LSP Farm Transitions: 507-523-3366; https://landstewardshipproject.org/morefarmers/farm-transition-tools

➔ LSP Clearinghouse, MOSES Land Linked-Up, MN Farm Link (see URLs in Farmland Ownership)

➔ Beginningfarmers.org, https://www.beginningfarmers.org/finding-land-to-farm

Experience Recommendation: Some Competency to Advanced Competency 4-5
SECTION II: Experience

Section II-C: Experience Key Questions & Next Steps

1. What are your ideas and options for garnering the experience and skills you need to be successful as a farmer generally, and specifically as it applies to your enterprise interests, both in production and farm business management (review your skills assessment to help identify what is needed)?

_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________

2. After reviewing the Land Access Experience Profiles, are there land access options that seem more aligned with your current experience level and skills?

_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________

3. If the land access options that align with your current experience level and skills exclude land ownership, are you okay with that (for at least the short-term)? Are you interested in moving forward with farming in the present through an alternative land access option? What could be personally gained or benefited by doing so?

_________________________________________________________________________________________
_________________________________________________________________________________________
_________________________________________________________________________________________

Section II-D: Next Steps & Notes

Did you complete these SECTION II Experience activities? What are your Experience next steps?

☐ Skills Assessment ______________________________________________________________

☐ Review Land Access Profiles _______________________________________________________

☐ Analyze Your Skills Assessment & Land Access Options _______________________________
SECTION III: Finances
To find success in acquiring a property, especially through ownership, requires an understanding of one’s financial picture and future financial goals, and an elevated capacity for financial record-keeping, so that farming (with or without the financial subsidy of off-farm work), and the land ultimately purchased, can, depending on your goals, viably cover or contribute to the cost of the investment, support the expenses of the farm’s enterprises, and contribute to the household budget.

When considering land ownership, ask several financial questions. How much stable income and/or savings do you have now and for the foreseeable future to invest? Are these resources enough to acquire property that can effectively meet your farming goals and the household financial returns you expect from the farm? If you do not currently have stable or enough income or savings to make an investment, but have strong farm experience to successfully develop and actualize a farm business plan, do you have the confidence in yourself, and an openness to taking risk, to make the long-term financial commitment? Do you have the financial record-keeping skills to: create and manage production and marketing records to inform financial decisions; create enterprise and household budgets to inform a viable cash flow plan; create a profit-loss statement and balance sheet to inform you on farm profitability and its contribution to your debt as well as your net worth; and create an accounting system that interacts with all the aforementioned, keeping your spending and income organized? These financial record-keeping skills are essential, not only for positioning yourself to obtain funding for land ownership, but also for successful and affordable ownership itself.

Having an elevated capacity for financial record-keeping, as well as clarity around one’s current financial situation and future financial goals, is essential so that the return on the land investment, one of the greatest investments you will make within your lifetime, is a positive experience that moves the individual and/or family towards their vision, not backwards towards a debt that is so overwhelming that the farm fails and quality-of-life suffers. If you lack capacity in the area of finances, slow down the farm dream, return to your VISION and EXPERIENCE work, and garner the financial skills and clarity you need before considering an investment. If you feel ready for an investment and are assessing the affordability of land, it is very important that you invest wisely, securing property that has enough high quality soil and acreage to financially support your goals, while not getting so deep into debt that you cannot carry out your long term plans. It is a difficult balance to strike. The stronger your financial capacity and record-keeping skills, the more prepared you will be for making solid land ownership and land affordability decisions.
SECTION III: Finances

Section III-A: Land Affordability & Readiness Assessment

Through the lens of financial affordability and your current financial capacity, as well as farm experience and goals, the following flowchart may provide perspective on land ownership readiness and next step activities.

What does your current financial situation allow you to afford for land/home access? 
*Hint: at a minimum, what do you currently pay a month for rent/mortgage? Can you afford more?*

Not Sure

Visit Section III in Tool —FINANCES—
to do financial planning work to better assess your budget and financial picture.

Could this type of property accommodate the farm dream and quality-of-life you envision for your future?

Not Sure

Visit Section I in Tool —VISIONING—
to do “farm dream” and other visioning work to better assess your farming goals.

Yes

What type of land/home does this $ per month capacity allow you to access (rent/own)? Describe:

- Acres/Geography? ___________________________
- Home? ____________________________________
- Location? __________________________________
- Infrastructure? ______________________________

*Hint: Do some research—recommended resources:*

- [http://www.mortgagecalculator.net](http://www.mortgagecalculator.net) (free calculator to assess mortgage capacity)
- [http://landstewardshipproject.org/morefarmersseekingfarmersseekinglandclearninghouse](http://landstewardshipproject.org/morefarmersseekingfarmersseekinglandclearninghouse) (Upper Midwest farm/land listing through LSP)
- [www.landandfarm.com](http://www.landandfarm.com) (national search site)
- [www.landbin.com](http://www.landbin.com) (MN & WI search)
- [www.beginningfarmers.org/finding-land-to-farm](http://www.beginningfarmers.org/finding-land-to-farm) (multiple land resources)

Not Sure

You may be ready to move forward with accessing land!

Visit Section III and IV in Tool —FINANCES & LAND ASSESSMENT—
to help assess the property and finance options. Also visit the Land Profiles in Section II for alternatives.
Section III-A: Land Affordability & Readiness Assessment

...No, my current financial capacity does not seem to enable access to land that will accommodate my farm dream and the quality of life I envision for my future.

Does your production and farm business management experience to date allow you to realistically actualize farm enterprises with moderate to advanced success right now?

Visit Section II in Tool
— EXPERIENCE —
to assess your skills

No, I’ve got a lot to learn.

Yes, I think I could.

Visit Section II in Tool
— EXPERIENCE —
to explore alternative options for land access that may serve as an interim and strategic land access pathway (based on your experience) to move forward towards your ultimate land access goals.

Additionally...
Visit Sections I and III in Tool
— VISIONING & FINANCES —
to ensure that decisions and strategies are ultimately moving you in the right directions to meet your land access goals in the future.

What type of property do you anticipate needing to accommodate your farm dream? How much do you anticipate it costing?

Describe:

• Acres/Geography? ___________________________
• Location? __________________________________
• Infrastructure? ______________________________
• Cost/Cost Per Month? ________________________

Hint: Do some research. Resources on previous page...

Does your production and farm business management experience enable immediate farm enterprise start-up and the capacity to generate a viable financial plan (using capital/operating loans as needed) to consider moving forward with accessing land at the cost described above?

No. Return to Section I and II in the Tool
— VISIONING & EXPERIENCE —
to re-assess farm dream, land access options.

Yes. Visit Section III and IV in the Tool
— FINANCES & LAND ASSESSMENT —
to assess financing options and the land. Also, visit land profiles in Section II for alternatives.
Financial record-keeping consists of many different components, all of which interact with and inform each other, as well as a skill-set that includes technique, good habits and the desire to do the work required. This allows you to successfully manage a viable farm business, meeting financial, personal and business goals, contributing to quality-of-life, and helping to make the land investment an affordable and wise investment. While financial record-keeping is not an inherent strength for many farmers, when you understand what is at stake — ultimately, the ability to move you towards your values and vision — strengthening your financial record-keeping skills, good habits, and desire is compelling...and in the case of financing land, is often required.

### Household Budget & Financial Goals

The most foundational steps of financial record-keeping that can ultimately help determine financial goals of the farm and consequently help determine the type, size and affordability of land for farming, is to create and understand your household budget and spending patterns, as well as your future financial goals. If you do not know your annual household budget and/or if you haven’t thought about financial goals, it is instrumental in the financial planning process to start with budgeting. Know your numbers! Understand your bottom line, both now and in terms of your future financial goals. Having clarity on your household budget and financial goals is a foundational way to create a holistic financial plan for your life and the farm dream. Once you understand your own bottom line, farm business planning can begin: how many units of what product, produced at what cost, sold at what price, meet your personal and financial income needs? When this level of financial planning clarity is attained, determining which parcel of land best fits your budget and other goals becomes much clearer.
Section III-B: Record-Keeping (continued…)

**Household Budget & Financial Goals Activity**

**DO —** Create an annual budget by month for personal expenses, i.e. rent, insurance, groceries, dining out.

**DO —** Determine if expenses are “fixed” costs or are “discretionary” (room for adjustment as needed).

**DO —** A monthly spending tracker (ideally 2-3 months), if you are unsure of your spending patterns.

➔ At the end of a month, review your bank statement. Classify every single expense by a broad category, such as groceries, dining out, auto repair, auto loan, medications, recreation, habits. It may be necessary to think back, ideally look at receipts, or make informed guesses to divide transactions that covered more than one category. Use categories that make sense to you. Once all expenses are categorized, total all of them within a category. This will provide a sense of how much is spent per month on specific broad items (such as groceries) and can be used as the foundation of a household budget. It can also serve partners well as a good communication tool when discussing future financial goals or bad spending habits. More months = better information!

**DO —** A budget projection with future financial goals or increases not currently in the budget.

**DO —** Use this work to better understand your household financial bottom line and goals.

**DO —** Use this work for farm business and enterprise planning and land affordability considerations.

**Other Financial Record-Keeping**

For individuals considering land ownership without having farm financial records (whether because of a lack of experience operating their own enterprises or from not having done the financial record-keeping work while farming), it may still be possible to acquire property through a conventional mortgage, based on non-farm activities and income. A financial-related benefit of doing so includes not needing 1-3 years of farm financial history, the completion of a balance sheet, cash flow statement, profit-loss statement, and farm taxes. Basically, if your household income is stable and you’ve got good credit and a down payment, you can consider ownership of a rural property (that could be later used for farm enterprises) through conventional means.

A financial-related drawback of considering land ownership without having farm financial records includes not having a grounded understanding of your land needs and the affordability of the investment. Moreover, conventional funding generally offers a more limited pool of financing options, whereas some farm loans, such as
Section III-B: Record-Keeping (continued...)

a Farm Service Agency (FSA) ownership loan, offer payment flexibility, corresponding operational support, often lower interest rates, and an option for a reduced or zero down payment requirement. While the level of work and farm experience involved in preparing a farm ownership loan is more than a conventional mortgage, the information being acquired along the way is of great assistance in assessing the affordability of the land investment and your capacity to fulfill your farm business plan.

Financial Recording at a Glance—What Records to Keep & Why

➔ **Accounting System** — A system of accounting tracks all earned income and all expenses, organizing each financial transaction made by organized categories (called a chart of accounts) such as feed, seed, veterinary services, supplies (farm expenses) or groceries, auto insurance and dining out (personal expenses). Having an efficient accounting system allows an individual to track actual earned income and expenses, which enables greater capacity and assurance that you stick to your financial plan, and fulfill legal obligations such as farm taxes. Whether using an accounting software program such as QuickBooks, or creating your own template in Excel, be sure to utilize your spending tracker work to create a chart of accounts that is functional and meaningful to your household needs. Use the categories in Schedule F (farm taxes) as a baseline chart of accounts for the farm.

➔ **Production & Marketing Records** — Includes information that is gathered from production, such as livestock records, seeding, harvest, post-harvest records, market sales, volume of product sold, and more. Keeping good production and marketing records aids in annual decision-making around enterprises and the development of healthy enterprise budgets, allowing you to work smarter, not harder, making the farm financial plan viable and the land investment affordable.

➔ **Farm Enterprise & Household Budgets** — These are annual budgets for farm enterprises and for the household that allocates projected income and projected expenses by month for when the income or expense is anticipated. Farm enterprise budgets and household budgets are created so that an overarching financial plan can be developed that is balanced (there is enough income to cover expenses) and that financial transaction data can be taken from one’s accounting system to track budgeted-to-actual income and expenses to ensure one’s financial plan is on the right track.

**Government Farm Credit Resources**


- **Farm Credit Services—Young & Beginning Farmer Loans**: [https://www.fcsamerica.com/products/young-beginning](https://www.fcsamerica.com/products/young-beginning)
Section III-B: Record-keeping (continued...)

Financial Recording at a Glance—What Records to Keep & Why

➔ **Annual Cash Flow Plan**—This is an annual financial plan that combines all farm enterprise budgets (and the household budget for consolidated plans) into one large financial statement that provides a road map detailing how much money is available during the duration of the year on a monthly basis. Unlike salaried employment, farmers experience uneven income streams and heavy expense loads, incurring expenses early in the year in order to produce much of their income months later. Just because farm and household budgets may balance (there is enough projected income to cover the projected expenses), doesn’t mean that the financial plan is sound. A profitable farm operation can be put out of business by a lack of cash flow. You must ask yourself — do I have cash during the time of year when I need it? If not, the plan, no matter how balanced, will fail. Putting all budgeted income and expenses into an annual plan that spatially relates transactions by the month earned and spent, without showing negative cash flow, ensures that the financial plan is viable. When the cash flow of a financial plan is sound, then the affordability of land becomes apparent, as the cost of the investment is embedded into a viable plan.

➔ **Taxes**—A legal requirement showing income and expenses tracked through one’s accounting and organized into specific categories provided by the U.S. government on the IRS Schedule F form.

➔ **Balance Sheet**—A financial statement that gives a snapshot of the business’ assets, liabilities and net worth on a particular date, providing the farm owners with an idea of what they own and owe. It shows the farm’s financial position and what would be left should the farm be sold at a particular point in time. When the total value of liabilities is subtracted from the total value of assets, the difference is considered the “net worth,” which is the owner’s equity in the farm (what is owned free and clear). The balance sheet contains “schedules” or inventories of all assets (machinery, infrastructure, supplies) and their worth, as well as details on liabilities such as debt and loans.

➔ **Profit-Loss Statement**—A financial statement that shows income, expenses and net profit from the farm for the year. Similar to what a cash flow statement shows, but in less detail.

Farm loans usually require 1-3 years of financials, including tax filings, cash flow, a balance sheet and a profit-loss statement. Some farm micro-loan programs do not.
Section III-C: Financing

Beginning Farmer Capital Loans

There are a wide range of capital loan options available to beginning farmers. Below are six loans commonly used to obtain farm ownership financing, and a breakdown of how they compare to one another.

<table>
<thead>
<tr>
<th>Loan Type</th>
<th>Interest Rates</th>
<th>Eligibility Requirement</th>
<th>Flexibility of Loan Use</th>
<th>Loan Term</th>
<th>Loan Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>USDA Farm Ownership Loan</td>
<td>Low to High</td>
<td>Low to High</td>
<td>Low to High</td>
<td>Low to High</td>
<td>Low to High</td>
</tr>
<tr>
<td>USDA Farm Micro-loan</td>
<td>Low to High</td>
<td>High</td>
<td>Low to High</td>
<td>Low to High</td>
<td>Low to High</td>
</tr>
<tr>
<td>Farm Credit Farm Start Loan</td>
<td>Low to High</td>
<td>High</td>
<td>Low to High</td>
<td>Low to High</td>
<td>Low to High</td>
</tr>
<tr>
<td>Crowd Lending</td>
<td>Low to High</td>
<td>Low</td>
<td>Low to High</td>
<td>Low to High</td>
<td>Low to High</td>
</tr>
<tr>
<td>Commercial Bank Loan</td>
<td>Low to High</td>
<td>Low</td>
<td>Low to High</td>
<td>Low to High</td>
<td>Low to High</td>
</tr>
<tr>
<td>Home Bank Loan</td>
<td>Low to High</td>
<td>Low</td>
<td>Low to High</td>
<td>Low to High</td>
<td>Low to High</td>
</tr>
</tbody>
</table>

Interest rates influence how much extra you will need to pay on top of the amount borrowed. Lower interest loans mean less payments over time.

Loan eligibility can vary. Loans with high eligibility requirements might require a certain credit score, down payment, matching funds, having previous work or educational experience, and/or financial business plan documents.

Certain loans have very specific guidelines that dictate what they can be used for, such as a land purchase, infrastructure development or yearly operating loans. Other loans are more flexible and can be used for a wider range of projects.

The amount of time to repay a loan varies from loan-to-loan and borrower-to-borrower. The length of a loan term dictates the payment schedule and amount.

The amount of money you will be able to borrow varies between different loans. Certain loans offer high amounts of capital. Others offer less.
Section III-D: Financing Key Questions

1. After doing the *Land Affordability and Readiness Assessment*, have you gained clarity on where your financial position is in relationship to accessing land through ownership that will support your goals? Do you need to step back? Or are you financially positioned to move forward? How do you feel about the financial risk and the potential rewards in doing so?

___________________________________________________________________________________

___________________________________________________________________________________

2. If you do not have a household budget with financial goals, and lack certain clarity on spending patterns, who within the household will take leadership to complete a spending tracker? Discuss this task with a completion timeline, as well as a financial discussion “date” (if in a partnership) to discuss the outcomes.

___________________________________________________________________________________

___________________________________________________________________________________

3. The affordability of land is relative to the soundness and viability of a good farm business plan. After reviewing key messages around financial record-keeping, has the value of doing financial record-keeping work been elevated as a priority, as a way to further your farm dream towards land ownership?

___________________________________________________________________________________

___________________________________________________________________________________

Section III-D: Next Steps & Notes

Which of the financial records below do you currently complete or have experience completing? If you lack the experience, what are your *Financial* next steps for gaining necessary financial record-keeping knowledge?

☐ Production/Marketing Records

☐ Accounting System

☐ Enterprise/Household Budgets

☐ Annual Cash Flow Plan

☐ Taxes/Schedule F

☐ Balance Sheet

☐ Profit-Loss Statement
SECTION IV: Land Assessment
Regardless of the steps you have taken to create your vision, garner experience and skills, and shore up your finances, in the end all of these positive actions could be wasted if you don’t access the appropriate soil and ecosystem that makes for a viable land base.

It is critical that when you feel ready to invest in land, that you choose and invest wisely. Purchasing land should be a methodical process. Learn how to assess the land in association with the core enterprise you plan to develop. Carefully consist the soil consistency, slope, drainage, access to water, energy flow, mineral and water cycle, biological communities — and take your time to purchase the right parcel. Doing otherwise could have significant consequences. Farming often requires high investments of money, time and energy. If the land lacks the capacity to provide a good return on that investment and offers limited support towards your livelihood and diminished quality-of-life, your farm dream can quickly become a disappointment.

Assessing the land and understanding soil and ecosystem processes is inherently complex and should be considered part of a lifelong learning process for any farmer. As a beginning farmer with less exposure to land that functions effectively (or ineffectively) for various enterprises, it can be difficult to “read the land.” To aid the process, start first with your core enterprise and identify what land and soil features are ideal, and what to be leery of. These parameters can offer a more simplified filter through which to assess land quality. From there, learn some basic monitoring skills that you can utilize while you walk and interact with the land being considered.

And finally, have a strong network of support through which you can seek answers and validation — this could be an Extension educator or a farm support organization. Most effectively, it could be a farmer-mentor who is pursuing similar enterprises or an experienced (and wise!) farmer friend. Don’t rely solely on your network, though. The more you come armed with information, the more productive your land search process will be.
Because different crops and species of livestock have varying soil, water, mineral, climate, geographical and other preferences, it is helpful to assess land through the filter of what products you want to produce on those acres. Get to know your planned core enterprise(s) well by doing research, attending workshops and talking with other farmers. In the space below, identify the ideal land and soil features you seek for your core enterprise(s).

### Core Enterprise(s):

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Description for Ideal Production:</td>
<td>i.e. Soil type, mineral, organic matter, pH and other soil needs…</td>
</tr>
<tr>
<td>Site Evaluation for Ideal Production:</td>
<td>i.e. Sun exposure, shade, drainage, slope, zone, weather and other site needs…</td>
</tr>
<tr>
<td>Water Needs for Ideal Production:</td>
<td>i.e. Water access, water capacity, water quality and water needs…</td>
</tr>
<tr>
<td>Other Considerations for Ideal Production:</td>
<td>i.e. Market proximity, infrastructure, neighbor considerations and other needs…</td>
</tr>
</tbody>
</table>
Section IV-B: Reading the Land

Listed below are a series of observation activities that can provide valuable land assessment information regarding the health of the soil, the effectiveness or ineffectiveness of ecosystem processes, and other site evaluations that are pertinent to your core enterprise(s). In order to aid your interpretation of activity results, learn what you can about sustainable and regenerative land management, soil health and ecosystems as an “experience” precursor to buying land and starting a farm. Compliment your working knowledge by seeking advice from your support network (a farmer mentor, farmer friends, Extension educators, or farm organizations). Be sure to gain permission from the seller or realtor before walking the land and conducting activities.

**Shovel Test**

**WHAT:** A shovel test allows you to look at, feel and smell the soil, check for biological life, and observe the roots of plants growing in the soil clod that was removed during the dig.

**SUPPLIES:** Pointed-nose shovel, zip-lock bag (in case you want to take a sample back to your network of support).

**DETAILS:** Soil health is the foundation of productive farming practices that allow for sustained productivity and promote plant and animal health. Important physical characteristics of soil—structure and aggregation allow water and air to flow, roots to explore, nutrients to cycle, and biota to thrive.

**DIRECTIONS:** Dig a hole (or a few holes in different locations) as deep as your strength naturally and reasonably allows (typically 18”–24” deep). Carry a pencil and notebook into the field. Describe:

➔ **The COLOR of the soil** ... Topsoil (or the surface soil) can range from light to dark in color. Subsoil usually takes on bright, dull or mottled hues.

**WHY IS THIS IMPORTANT?** Dark topsoil or surface soil (dark brown, red or black) indicates high levels of organic matter and good water retention, whereas lighter-colored topsoils or surface soils have lower levels of organic matter and poorer water retention. For subsoils, brighter soils (reds, browns or yellow hues) usually indicate good drainage, while dull gray or olive colored hues usually indicate poor drainage. A mottled coloration reflects somewhat poorer drainage (but during periods of dry, it functions better).

➔ **The SMELL of the soil** ... Healthy soils should smell of earth — fresh and pleasant, sometimes carrying a sweet smell, or can have little odor at all.

**WHY IS THIS IMPORTANT?** Unhealthy soil can be difficult soil to work with or “fix.” If the soil smells rotten, swampy or like ammonia, it usually indicates poor drainage and a lack of oxygen.
SECTION IV: Land Assessment

Section IV-B: Reading the Land (continued…)

➔ The MOVEMENT in the soil ... Do a count of organisms, such as centipedes, ground beetles, worms and spiders, found in the soil. Most soil organisms spurn daylight, so gently probe the soil to unearth them.

WHY IS THIS IMPORTANT? A thriving population of diverse fungi, bacteria, insects, worms and invertebrates is one of the most visible signs of soil health. Each level of soil life does its part to break down plant residue and make nutrients available for plants. Soil life also aerates the soil, increases water infiltration and secrete compounds that bind soil particles together for better tilth. If you count less than 10 organisms in the soil, it may not have an active biological community of players in the food chain.

➔ The ROOT DEVELOPMENT within the soil ... Look at the extent of root development within the soil clod. What type of roots do you see? Search for fine root strands with a white, healthy appearance.

WHY IS THIS IMPORTANT? Unhealthy roots and/or a limited root supply can say a lot about the soil. Roots have the most immediate connection with and reliance on soil health. Without proper air, water, biological activity and soil texture to grow, roots can’t thrive. Stunted roots may indicate a compaction layer in the soil that the roots can’t penetrate. It may also indicate disease or presence of root-gnawing pests. Brown, mushy roots indicate drainage problems.

➔ The TEXTURE of the soil ... Feel the soil by squeezing it between your fingers and in your hands. Does it feel gritty, greasy or powdery? Granular, dense or loose? Is it clumpy, holding its shape, or does it fall apart?

WHY IS THIS IMPORTANT? Soil texture can tell you about the soil workability, aggregates and soil type.

Workability — Soil that’s easy to work allows water to reach roots efficiently and is less prone to compaction. If the soil contains hard clods or is plate-like, the workability may be low and can require more effort to prepare. If workability is poor, it can produce disappointing production results.

Aggregates — Soil aggregates are groups of soil particles that are created by bacteria, in association with roots and root hairs, and fungi. A sticky substance is produced that “glues” particles together. If there is good presence of aggregates—usually found in soils with high organic matter—the texture of the soil will appear “clumpy” with “aggregate balls” and will resist falling apart. The more aggregates in the soil, the better it can sustain its structure during heavy rains, the greater its water retention capacity and the greater its biological activity. Strong, healthy roots develop in good aggregate soils.
Section IV-B: Reading the Land (continued…)

Sandy Soil Type — Sandy soil will feel gritty to the touch and does not form clumps when rolled between your fingers. Sandy soil is very well drained but often contains little in the way of organic matter. Sandy soil lacks water holding capacity and nutrient retention, is prone to drought, but drains well.

Clay Soil Type — Clay soil is a dense soil that will feel greasy, perhaps a little sticky, and easily forms clods or “sausages” when rolled between the fingers. Clay soil holds large amounts of nutrients and water, and is generally high in organic matter. It is also a heavy soil that can be difficult to work. Clay has poor drainage, drying out slowly, and can become anaerobic. As it dries out, a hard-pan crust can form that does not allow the rain to penetrate. It is prone to flooding.

Silty and Loamy Soil Type — Silty and loamy soils feel loose, crumbly or floury when it’s dry, and can feel a little greasy when it’s wet. If the soil is wet during your shovel test and you are unsure if it’s more silty or clayey, rub some soil in your palm. Silt and clay will form a ball. Roll the ball out into a ribbon. It will crack if it’s silty, but will continue to roll into a longer ribbon if it’s clay. Loamy soil is often considered ideal soil because it’s nearly equal parts sand, silt and clay, which allow it to take on the best traits of each, while leaving behind many of the undesirable traits. Loam soil drains well, feels loose, is workable in your hands, and can have good organic matter (or a good capacity to build and retain organic matter).

Soil Assessment Resource
A good resource is the USDA Web Soil Survey: https://websoilsurvey.sc.egov.usda.gov — click on the green “Start WSS” tab at the top to get started—you can zero-in to very specific locations.

---

**Compaction Test**

**WHAT:** A compaction test marks the depth of a soil compaction layer and provides information about how compacted or penetrable the soil is.

**SUPPLIES:** A wire marker flag (or simply a wire with a similar gauge as a wire marker flag).

**DETAILS:** When soil has poor structure, it’s been mistreated through heavy equipment use or it’s been run over when it’s wet. It’s often a compacted soil, meaning the soil particles have been pushed close together.

**DIRECTIONS:** Push a wire flag vertically into the soil at different locations. Mark the depth at which the wire bends. The sooner it bends, the more compacted the soil (a foot or more of easily penetrable soil is ideal).

**WHY IS THIS IMPORTANT?** In compacted soil, the soil pores are small and can hold less air and water for plants. Compacted soils inhibit root growth (there are fewer and smaller roots). In extremely compacted soils, roots can no longer penetrate soil. Compacted soils restrict living organisms from circulating freely. Consequently, there is often less life in compacted soils. The health and productivity of the plants suffer.
Section IV-B: Reading the Land (continued…)

### Infiltration Test

**WHAT:** The infiltration test measures the rate at which water enters the soil. The faster the infiltration, the better the water retention. The slower, the more compacted the soil.

**SUPPLIES:** An empty metal coffee can (approximately 6” diameter can with the lid and bottom removed so it’s just a cylinder), a hammer or mallet, a quart of water, press ‘n seal cling wrap, a piece of wood (big enough to cover the cylinder), stop watch, knife or scissors to trim vegetation.

**DETAILS:** Water enters the soil from ground level through the process of infiltration (water absorbed by soil during a rainfall or introduced water such as irrigation). The infiltration rate is a measure of how fast water enters the soil during rain or irrigation.

**DIRECTIONS:** Select a sampling area and trim the vegetation to the soil surface just wider than the diameter of the coffee can. Push or pound the coffee can cylinder into the soil until approximately 3” of the can is above ground (if pounding the can is necessary to get it into the soil, put the wood over the top of the can and hit the wood with the hammer or mallet, which more evenly pushes the can into the soil). Use your finger to gently firm the soil surface around the inside edge of the ring to prevent extra water seepage down the soil cut where the can was inserted. Minimize disturbance to the rest of the soil inside the ring. Line the inside of the can with the press ‘n seal cling wrap so that it lays flat on the ground and follow up the sides of the can. Pour 1” of water into the can (making sure it stays within the cling wrap).

Remove the cling wrap by gently but quickly pulling it out and away from the can. As soon as the cling wrap is removed and the water meets the soil, record your time in terms of the seconds or minutes that it takes for the inch of water to infiltrate the soil. Stop timing when the water is gone and the surface is just glistening. Record your infiltration rate. Because the moisture content of the soil (prior to the test) will affect the rate of infiltration, two infiltration tests are usually performed. The first inch of water wets the soil, and the second inch gives a better estimate of the actual infiltration rate of the soil. Therefore, repeat the test with a second inch of water.

Record your infiltration rate. If the soil moisture prior to doing the first test is already saturated, infiltration will not occur (the test is ineffective and shouldn’t be performed). If the soil moisture is at or near capacity prior to the first test (it’s wet but not fully saturated), the second test is not necessary (the first test can be used as an estimate of the infiltration rate of the soil). If the water drains away quickly—within up to 2 hours—it is well-drained soil. If the water drains more slowly—between 2 - 8 hours—it is moderately-drained. If the water is still not drained after 8 hours, the soil is poorly-drained.
Section IV-B: Reading the Land (continued…)

Good infiltration is important because it gets water to the plants at their roots where it’s needed. It also lets air move more efficiently into soil pores. Water entering the soil too slowly may lead to ponding on level fields, or erosion from surface run-off on sloping fields. If water is entering the soil too slowly, it is likely there is a soil compaction issue.

**Soil Test**

**WHAT:** A soil test analyzes a soil sample to determine nutrient content, composition and other characteristics such as the pH level and organic matter.

**SUPPLIES:** 1-gallon bucket, a small garden trowel or spade to dig up and mix soil, zip-lock bag, postage and packaging for mailing soil sample to lab, and payment for the soil test.

**DETAILS:** A soil test report is relatively straightforward when it comes to the nutrient, composition and other soil characteristic information it provides, yet it contains a lot of technical terms and/or abbreviations that can be confusing; interpretation of soil test results requires experience and working knowledge. It is recommended that you utilize your network of support to aid in your understanding of the results. Soil tests are best used as one of many observation and monitoring tools, and shouldn’t be seen as the final or only say regarding the health or balance of one’s soil. Still, a soil test will provide valuable information that a farmer-mentor or someone else in your network of support will likely be interested in as they help to interpret the overall health of the land being considered. A soil test, in combination with the other observation tests, can provide a holistic set of data to help in the land access decision-making process. Because a soil test costs money, it should be reserved for land that is seriously being considered for acquisition. If initial results seem promising, one approach is to do a soil test as a follow-up to the other observation tests.

**DIRECTIONS:** For a standard soil test, the following instructions are typical. Before taking the soil sample, identify and contact a soil testing lab to inquire about its process, in case it varies from the instruction provided here. Be sure to seek a testing “series” that goes beyond a limited analysis—phosphorus, potassium, nitrogen, pH, organic matter. Ask for a “series” that also analyzes micro and macro nutrients, cation exchange capacity, and base saturation.

**Soil lab recommendation:** Minnesota Valley Testing Laboratories (www.mvtl.com). Request soil test “series G.” Complete the soil sample (instructions on page 45), and submit the sample with the information listed here by including a typed or handwritten note with this information (call first, inform them you’re submitting a
Section IV-B: Reading the Land (continued…)

sample, ask if the price is the same and if soil test “series G” is still the complete analysis test it’s always been):

- Soil sample from: farm name, your name, address.
- Soil test directions: “Please run a complete analysis ‘series G’ soil test.”
- E-mail/mail results to: include e-mail address, followed by “Please follow-up by mailing a hard-copy of the results to the address listed above.”
- Payment: “Enclosed is $31.25 for the ‘Series G’ soil test.”
- End with: Thank you! Your name and telephone number.

Basic soil sample instructions: Within the acreage of land that you foresee production occurring, dig up soil, approximately 0-8” deep, from approximately 6-20 sample sites within the production area (6 samples for smaller acreage such as 1-5 acres, up to 20 for larger acreage). Put each sample into the same bucket. Once all samples are collected, mix them well. From that mix, collect 2 cups of soil, placing it into a zip-lock bag. Seal up the bag. Label the soil sample with proper identification, soil test series instruction, and necessary contact information (as listed above), and any other details the soil testing company you’ve selected has requested.

WHY IS THIS IMPORTANT? A soil test can provide valuable information regarding fertilizer, mineral amendment, liming and other needs for production, based on the type of plants or animals you plan to grow or raise on the land. For example, if soil pH levels aren’t within the range of what the plants you plan to grow need, they won’t be able to absorb the nutrients that are naturally found in the soil. Not only can a soil test provide a baseline for knowing that the land has potential and that there is a strategic pathway forward for making fertility improvements, it can also help define where there may be challenges too great to risk your future success on a resource base with limited capacity or too many problems to “fix” for your particular enterprise needs.

Ecosystem Processes

**WHAT:** To understand if land is functioning effectively or ineffectively, we can observe the ecosystem’s water cycle, mineral cycle, energy flow and biological communities.

**SUPPLIES:** The charts on the following pages provide observation tips for each process of the ecosystem.

**DETAILS/DIRECTIONS:** As you walk the land, use the observation tips for effective and ineffective water cycle, mineral cycle, energy flow and biological communities to help gauge the health of each ecosystem process.
Section IV-B: Reading the Land (continued…)

**MINERAL CYCLE** is the process by which nutrients cycle between living things, the atmosphere and soils. Where mineral cycles are healthy, nutrients cycle rapidly and tend to stay within living things, or at least are accessible to them. Where mineral cycles are unhealthy, nutrients tend to get tied up in biologically unavailable forms or are lost through erosion or leaching.

<table>
<thead>
<tr>
<th>Effective Mineral Cycle</th>
<th>Ineffective Mineral Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>A porous structured soil underground and on soil surface.</td>
<td>Soil surface is compacted, sealed or crusted.</td>
</tr>
<tr>
<td>Soil rich in organic content.</td>
<td>Soil low in organic content.</td>
</tr>
<tr>
<td>Surface litter cover is high with decaying mulch on surface.</td>
<td>Surface litter cover is low with a high degree of bare ground.</td>
</tr>
<tr>
<td>Close plant spacing, very little exposed soil.</td>
<td>Wide plant spacing with large areas of exposed soil.</td>
</tr>
<tr>
<td>Minimal losses from the land due to wind or water erosion.</td>
<td>High losses from the land due to wind or water erosion.</td>
</tr>
<tr>
<td>Animal dung and surface organic matter is broken down.</td>
<td>Animal dung and surface organic matter not breaking down.</td>
</tr>
<tr>
<td>Dark green plant coloration and healthy, deep root systems.</td>
<td>Pale green to yellow plant coloration and shallow roots.</td>
</tr>
<tr>
<td>High insect and biological activity.</td>
<td>Low biological activity and insect populations.</td>
</tr>
<tr>
<td>Few bottlenecks in breakdown of vegetation in one season.</td>
<td>Bottlenecks in breakdown, vegetation older than one year.</td>
</tr>
</tbody>
</table>

**WATER CYCLE** is the process by which nutrients cycle between living things, the atmosphere and soils. Where mineral cycles are healthy, nutrients cycle rapidly and tend to stay within living things, or at least are accessible to them. Where mineral cycles are unhealthy, nutrients tend to get tied up in biologically unavailable forms or are lost through erosion or leaching.

<table>
<thead>
<tr>
<th>Effective Water Cycle</th>
<th>Ineffective Water Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil surface is permeable.</td>
<td>Soil surface exposed, sealed or crusted to a high degree.</td>
</tr>
<tr>
<td>Soil below surface is well-aerated and permeable.</td>
<td>Soil below surface is more compacted and aeration poor.</td>
</tr>
</tbody>
</table>
Section IV-B: Reading the Land (continued…)

<table>
<thead>
<tr>
<th>Effective Water Cycle (continued)</th>
<th>Ineffective Water Cycle (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water runoff is slow.</td>
<td>Water runoff is fast and high.</td>
</tr>
<tr>
<td>Evaporation loss is minimized due to covered soil surfaces.</td>
<td>Evaporation rates are high from exposed soil surfaces.</td>
</tr>
<tr>
<td>Both drought and floods tend to be less severe.</td>
<td>Droughts and floods tend to be more severe and frequent.</td>
</tr>
<tr>
<td>High level of vegetation production.</td>
<td>Vegetation production low.</td>
</tr>
<tr>
<td>Covered soil surfaces generally lead to all of the above.</td>
<td>Exposed soil surfaces generally lead to all the above.</td>
</tr>
<tr>
<td>Underground water levels stable (they replenish).</td>
<td>Underground water levels diminishing (do not replenish).</td>
</tr>
</tbody>
</table>

**ENERGY FLOW** is the capture of solar energy through photosynthesis, which is the process used by green plants to convert radiant energy from the sun into organic compounds such as glucose. With the known exception of organisms that live along thermal vents in the deep ocean floor, all organisms nurture themselves, directly or indirectly, on the products of photosynthesis.

<table>
<thead>
<tr>
<th>High Energy Flow Requires…</th>
<th>Low Energy Flow is a Result of…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covered soil surfaces.</td>
<td>Exposed and sealed soil surfaces.</td>
</tr>
<tr>
<td>High aeration and permeability of soil.</td>
<td>Compacted soil and large areas of bare ground.</td>
</tr>
<tr>
<td>High density and diversity of plants.</td>
<td>Low plant density and diversity.</td>
</tr>
<tr>
<td>Vigorous plant root systems of varying depths.</td>
<td>Unhealthy and very shallow root systems.</td>
</tr>
<tr>
<td>High proportion of broad leafed grasses or other plants.</td>
<td>Narrow leafed grasses or waxy leafed plants (poor aeration).</td>
</tr>
<tr>
<td>High species complexity and high potential for growth throughout the growing season.</td>
<td>Low species complexity and low potential for growth throughout the growing season.</td>
</tr>
<tr>
<td>Adequate recovery given to plants after they’ve been grazed.</td>
<td>Inadequate recovery given to plants after they’ve been grazed (does it appear overgrazed?).</td>
</tr>
</tbody>
</table>
SECTION IV: Land Assessment

Section IV-B: Reading the Land (continued…)

**BIOLOGICAL COMMUNITIES** refers to the diversity, complexity and number of plants, animals, insects, fungi, microorganisms and other biology found in ecosystems. The more complex and diverse communities become, the more stable populations tend to be. This is also referred to as succession — the process of change in species of an ecological community over time.

<table>
<thead>
<tr>
<th>Low Successional or Biological Communities…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are composed of populations of only a few species, relative to the potential of the site.</td>
</tr>
<tr>
<td>Are usually unstable and vulnerable to widespread fluctuations and extremes in population shifts (i.e. a pest outbreak).</td>
</tr>
<tr>
<td>Are usually susceptible to weather fluctuations, such as droughts and floods.</td>
</tr>
<tr>
<td>Usually occur when the water cycle and mineral cycle are ineffective and energy flow is low.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Successional or Biological Communities…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are composed of populations of many different species of plants, animals, birds, insects and microorganisms.</td>
</tr>
<tr>
<td>Are not prone to wide fluctuations in populations.</td>
</tr>
<tr>
<td>Are more resilient when exposed to weather fluctuations, such as droughts and floods.</td>
</tr>
<tr>
<td>Can occur where water and mineral cycles are very effective and energy flow is high.</td>
</tr>
</tbody>
</table>

**WHY IS THIS IMPORTANT?** Nature is inherently complex. With every property visited and observed, even if outward similarities exist, each piece of land will function differently. For some pieces of land, the differences may be nuanced. In other cases, the differences could be dramatic. To make sense of the inherent complexity, we can break down our observations into four fundamental processes that operate in every ecosystem: the **water cycle**, **mineral cycle**, **energy flow** and **biological communities**. The four ecosystem processes are different aspects of the same thing — the “whole” of the ecosystem. It’s like looking through four different windows to observe the same room.

By making observations through the filter of each isolated ecosystem process, it can simplify the complexity of natural systems into more observable traits that are inherent to each process. It can also give us a starting place for focusing management activities or needs, and can provide insights into a compromised system (if we are seeing ineffective traits or damage to the land, it is possible that the land had been deteriorating for some time).
Finally, observations of ecosystem processes can help to better understand the overall health of the resource base as a whole. For example, in order to have an effective water or mineral cycle, or adequate energy flow, an ecosystem must have communities of living organisms. For living things to thrive, they need effective energy flow to feed them, a water cycle that supplies adequate moisture, and a mineral cycle that supplies vital nutrients. All four processes work together to create a healthy or unhealthy ecosystem.

**Other Assessments**

**WHAT:** Beyond reading the land for soil and ecosystem health, remember to also observe for site, water and other needs as described in your core enterprise(s) description.

➔ Does this piece of land have the needed sun or shade exposure, drainage, slope, temperature zone, weather, and/or other site needs as described for my core enterprise(s)?

➔ Does this piece of land have the needed water access, water capacity, water quality and/or other water needs as described for my core enterprise(s)?

➔ Does this piece of land have the needed market proximity, infrastructure, neighbor considerations and/or other needs as described for my core enterprise(s)?
SECTION IV: Land Assessment

Section IV-C: Land Assessment Key Questions & Next Steps

1. Do you have enough information concerning the site, soil and ecosystem needs of the core enterprise you are interested in pursuing? What additional information do you need to research concerning your core enterprise?

__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

2. After researching the site, soil and ecosystem needs of the core enterprise you are interested in pursuing, what type of property are you searching for? Broadly describe aspects of the property you seek (this can be helpful as you get to know farmers and real estate agents who can aid in your search, and can help with your communication skills as you advocate for yourself around the type of land you seek).

__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

Section IV-D: Next Steps & Notes

As you visit properties, did you conduct these SECTION IV Land Assessment activities? What are your Land Assessment next steps?

☐ Describe Core Enterprise Features ☐ Shovel Test: Color, Smell, Movement, Root Development, Texture
☐ Compaction Test ☐ Infiltration Test
☐ Soil Test ☐ Ecosystem Process Observations
☐ Other Assessment ________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

50
Resources

We hope that this publication has helped you go further down the road of planning before making potentially life changing decisions related to renting or buying land to farm. Below are some relevant resources offered by the Land Stewardship Project and the Farm Beginnings Collaborative that may help move you down the path.

General
  • Land Stewardship Project: http://landstewardshipproject.org
  • Farm Beginnings Collaborative: http://farmbeginningscollaborative.org (see pages 52-53)

Visioning, Finance & Experience
  • Land Stewardship Project’s Farm Beginnings Course (also offered by Farm Beginnings Collaborative members; see page 53): https://landstewardshipproject.org/morefarmers/farm
    Farm Beginnings is a 12-month training session that helps beginning farmers clarify their goals and strengths, establish a strong enterprise plan and start building their operation. The course uses a mix of farmer-led classroom sessions, on-farm tours, and an extensive farmer network.
  
  • LSP’s Journeyperson Course: https://landstewardshipproject.org/morefarmers/lspjourneypersonfarmtrainingcourse
    The two-year Journeyperson Course is designed to support people who have several years experience managing their own farm, and are working to take their farm to the next level. Through advanced farm business planning, mentorship and guidance on balancing farm, family and personal needs, as well as a matched savings account, participants will find ways to make their farms truly and deeply successful.

  • Land Stewardship Project’s Farm Dreams: https://landstewardshipproject.org/morefarmers/farmdreams
    Farm Dreams is a four-hour workshop designed to help people clarify what motivates them to farm, get their vision on paper, inventory their strengths and training needs and get perspective from an experienced farmer.

Land Access
  • LSP’s Seeking Farmers-Seeking Land Clearinghouse: https://landstewardshipproject.org/morefarmers/seekingfarmersseekinglandclearinghouse
    Are you a beginning farmer looking to rent or purchase farmland in the Midwest? Or are you an established farmer/landowner in the Midwest who is seeking a beginning farmer to purchase or rent your land, or to work with in a partnership situation? The Clearinghouse connects landowners with land seekers.

  • LSP’s Farm Transitions: https://landstewardshipproject.org/morefarmers/farmtransitiontools
The Farm Beginnings Collaborative (FBC) is a national alliance of independent groups of farmers and farmer-training organizations. We are working together to promote Farm Beginnings.

Farm Beginnings is unique in that it is a training model for beginning farmers that is farmer-led, community-based, and focused on sustainable agriculture. Farm Beginnings is emerging as the most effective way to increase the number of farmers who are building food and farm economies that are local, fair and healthy. We have graduated hundreds of farmers and more than 79 percent of our graduates are farming.

Our model is adaptable to diverse regions. Would you like to join the Farm Beginnings Collaborative? Please contact us!

- Sheri Doyel, Angelic Organics Learning Center, sheri@learngrowconnect.org
- Amy Bacigalupo, Land Stewardship Project, amyb@landstewardshipproject.org
- Website: http://farmbeginningscollaborative.org
Farm Beginnings Collaborative Members

**Minnesota**
Land Stewardship Project
Amy Bacigalupo
320-269-2105, amyb@landstewardshipproject.org

**Northern Illinois**
Angelic Organics Learning Center
Peg Sheaffer
815-389-8455, peg.s@learngrowconnect.org

**South Dakota**
Dakota Rural Action
Frank James
605-697-5204, fejames@dakotarural.org

**Southern Illinois**
Food Works
Kathleen Logan Smith
618-370-3287, kathleen@eatsouthernillinois.org

**North Dakota**
Foundation for Agricultural and Rural Resource Management and Sustainability (FARRMS)
Mindy Grant
701-867-2921, info@farrms.org

**Central Illinois**
The Land Connection
Mallory Krieger
217-840-2128, mallory@thelandconnection.com

**Maine**
Maine Organic Farmers & Gardeners Association
Daniel MacPhee
207-568-4142, dmacphee@mofga.org

**Nebraska**
Nebraska Sustainable Agriculture Society
William Powers
402-525-7794
healthyfarms@gmail.com

**Nebraska**
University of Nebraska Extension
Gary Lesoing
glesoing2@unl.edu

**New York State**
Hawthorne Valley Farm
Rachel Schneider
518-672-7500
rachel@hawthornvalleyfarm.org

**New York City**
Grow NYC
Christopher Wayne
212-341-2254
cwayne@grownyc.org

**North Carolina**
Organic Growers School
Cameron Farlow
828-338-9465
cameron@organicgrowersschool.org

**Ohio**
Ohio Ecological Food and Farm Association
Kelly Henderson
614-421-2022
kelly@oeffa.org

http://farmbeginningscollaborative.org