

# **A GUIDE TO SHARING FARM EQUIPMENT**

**A TOOL-SHARING TOOLKIT FOR  
FARMERS, COOPERATORS, AND  
ORGANIZERS OF SHARED  
EQUIPMENT POOLS**

**BY FAITH GILBERT**

**ADVISORS: JACOB MEYER, ATTORNEY  
JON JAFFE, FARM CREDIT EAST  
LYNDA BRUSHETT, COOPERATIVE  
DEVELOPMENT INSTITUTE**



# **THIS GUIDEBOOK WAS FUNDED BY A NORTHEAST SARE SUSTAINABLE COMMUNITY INNOVATIONS GRANT.**

## **ADDITIONAL THANKS TO:**

Jacob Meyer, Attorney  
Jon Jaffe, Farm Credit East  
Lynda Brushett, Cooperative Development Institute  
Phil Kenkel, Oklahoma State University  
William Edwards and Georgeanne Atz, Iowa State University  
Gene Homicki, My Turn  
Todd Erling, Hudson Valley Agribusiness Development Corporation

## **AND TO OUR FEATURED FARMS AND ORGANIZATIONS:**

Dorn Cox  
Farm Alliance Baltimore  
HarvestPort  
Intervale Farmer Equipment Company  
Sustainable Agriculture Tool Lending Library  
National Young Farmers Coalition New Mexico Chapter  
National Young Farmers Coalition Roaring Fork Chapter  
Southern Maryland Agricultural Development Commission  
Anne Arundel County Farm Equipment Rental Program

## **AND TO OTHER FARMERS, RENTAL AGENCIES, TOOL LIBRARIES, AND INDIVIDUALS WHO SHARED THEIR EXPERIENCE WITH US.**

Design by Kimberly Bousted  
Design edit by Devyn Maher



# CONTENTS

## **INTRODUCTION TO EQUIPMENT SHARING: THE PROBLEM & THE OPPORTUNITY ... 4**

## **CHAPTER 1: PROJECT PROFILES: TYPES OF EQUIPMENT SHARING..... 9**

1. Tool Lending Networks .....	7
2. Direct Co-Ownership .....	8
3. Shared Equipment Businesses .....	9
4. Equipment Co-operatives .....	10
5. Programs of State or Federal Agency.....	11
6. Programs of a Non-Profit Agency (NGO) .....	12

## **CHAPTER 2: DESIGNING YOUR EQUIPMENT SHARING PROGRAM .....13**

1. Equipment and Services.....	13
What equipment makes sense to share?.....	13
Will other services be provided?.....	14
2. Financial Feasibility & Planning.....	15
Budgeting Costs.....	15
Revenue Sources & Fee Structures.....	17
From Plan to Actual .....	21
3. Ownership.....	22
Approaches to Ownership.....	22
Choosing and Creating a Legal Entity.....	23
Ownership Agreements.....	24
4. Operations .....	27
Administration & Coordination.....	27
Scheduling Use.....	27
Maintenance and Repairs.....	28
Use Protocol and Training.....	29
Storage .....	30
Transport.....	30

## **CHAPTER 3: ORGANIZERS TOOLKIT .....32**

Equipment Checklist .....	32
Equipment Needs Survey.....	34
Equipment Use Agreement .....	38

## **CHAPTER 4: RESOURCES..... 40**

## **CHAPTER 5: NOTES..... 42**

# INTRODUCTION

---

## AUTHOR'S NOTE

In 2014 I released *Cooperative Farming: Frameworks for Farming Together*, a guidebook reporting on the wide landscape of collaborative farm businesses. I was amazed by the breadth and volume of response from farmers around the country -- proof that our desire for collaboration is strong. Where there is enough inspiration stirring, it's time to get down to the details. This book is intended as a deep dive into one particular way of working together.

While the challenges to farmers are many, our task is to chip away wherever possible at the barriers to farming well - and living well while farming. Creating new shared equipment pools may be an important piece in that puzzle, adding precious extra dollars to slim bottom lines and extra hours into time-stressed days.

Sharing equipment may also provide a chance to practice collective action, democracy, and participatory governance of shared resources.. Changing climate, increasing wealth gaps and globalizing markets may intensify challenges for us as growers in the next decades. Yet, as we rise to meet those challenges, we are also presented with an opportunity: to rewrite the culture and narrative of US agriculture, toward connected communities of growers that are “in it together,” with each other and with the earth.

Please take it forward in your community.

In fellowship,  
Faith Gilbert

# INTRODUCTION TO EQUIPMENT SHARING: THE PROBLEM & THE OPPORTUNITY



It takes a pretty simple math equation to determine that splitting the cost of purchasing tools is cheaper than buying them solo. With equipment costs as the second largest draw of capital for farmers<sup>1</sup>, bringing down equipment costs is a clear place to improve farm profitability and along with it, farmer quality of life. The simple appeal of cutting equipment investment costs has driven the development of standard equipment sharing organizations around the globe. In Sweden, machine rings (equipment sharing groups) started at the beginning of the 1990s and now number 20 local associations with about 5000 members (about 6% of Swedish farmers) - while Germany has about five times that amount of equipment sharing activity<sup>2</sup>. Just over our northern border, Canadian farmers in Ontario and Saskatchewan have formed numerous machinery cooperatives. However, the US is comparatively far behind. As Phil Kenkel, professor of Agricultural Economics at Oklahoma State put it, “Feasibility is great and practical examples are very few.” The reason seems to be largely a cultural one: while equipment-sharing has been proven successful elsewhere, there is a persistent impression that tool sharing is unlikely to work or not worth the hassle. That impression is summed up in two questions, repeated often in the dialogue around sharing tools:

**WHAT IF I CAN'T USE IT WHEN I NEED IT?  
WHAT HAPPENS WHEN IT BREAKS?**

It's important to acknowledge these real concerns. Timing is critical in farming, and to be able to share equipment effectively, producers need to be able to access a working tool within a limited time window. However, it is equally important to recognize that

these questions have been successfully addressed by many groups of farmers nationally and internationally, and should be considered elements of good business planning and management practices, not insurmountable roadblocks. Simply put, a group should plan to have the right size and number of machines to serve their group size, and have a repair and maintenance plan in place.

Practical concerns such as maintenance planning are discussed throughout this guide. And of course, sharing tools (or sharing anything) does take a certain amount of will, effort, and good community behavior that is likely greater than what's required to own your own equipment. Those are the trade-offs required to access community-owned resources and the benefits they provide, such as:

- Lower equipment ownership and operating costs
- Lower debt load and ability to save capital for other purposes
- Access to newer, more efficient equipment
- Access to specialized equipment
- A positive social experience of cooperation and working together

It's about lowering costs, but it's also about opening access to new opportunities. Two mulch layers in North Carolina allow almost a dozen start-up vegetable farms to add a few extra acres of production. Access to a specialized berry harvester in Iowa opens a new aronia berry enterprise in a region thin on market opportunities for more common crops. County-sponsored agricultural plastic recycling equipment, keyline plows and no-till drills enable hundreds of producers to improve ecological stewardship. Equipment sharing programs are an effective strategy to support many farming goals, whether focused on ecology, farm finances, or quality of life.

## WHAT IF I CAN'T USE IT WHEN I NEED IT?



The fear that equipment won't be available when needed is one of the most common concerns regarding sharing equipment. This concern is particularly strong in highly seasonal forms of agriculture, such as grain and oilseed farming - yet the bulk of machinery cooperatives in the US, Canada and Sweden are formed around sharing exactly those time-sensitive tools. Generally speaking, the solution is to collectively acquire larger equipment, so that "everybody can have a lower price and get the job done just as quick."<sup>3</sup>

In a study on a Swedish grain farming machine ring, researchers decided to put a number on the "what if I can't use it when I need it?" fear. They spent twenty years collecting data on the number of workable days per year and developing calculations of "timeliness costs," or "the economic consequences of performing a field operation at non-optimal time"<sup>4</sup>. They then measured timeliness costs among machine ring members who were sharing grain equipment, to determine how often "non-optimal timing" was affecting crop quantity or pricing. They found that even after factoring in timeliness costs, "Swedish farmers that were members of a machinery cooperative still experienced cost savings in excess of 15% over the time period studied."<sup>5</sup> They also concluded that if the farmers were sharing fewer, larger machines (rather than the machines they had purchased separately before forming the machine ring), their cost savings and timeliness costs would be significantly lower. Similarly, researchers Garrett Long and Phil Kenkel calculated potential cost savings from machinery sharing among Southern Plains grain farmers. The authors considered available field time constraints and determined that "a five member cooperative could complete operations for all participants within the field time historically available in most regions" -- and generate cost savings of up to 41%<sup>5</sup>.

Tool share organizers should do their best to assess how many users might reasonably be served by a particular tool, and where users have need for similar equipment at similar time frames, should scale their equipment choices accordingly. This might mean purchasing a larger combine - or, like the Northern New Mexico Young Farmers Alliance, simply stocking multiple Earthway seeders.

# CHAPTER 1

---

## PROJECT PROFILES: TYPES OF EQUIPMENT SHARING

Twenty groups and individuals were interviewed in the research for this publication. In many cases, farm equipment banks were programs within larger organizations, or offered alongside a more comprehensive set of farm services. However, there are also cases in which tool sharing was the central or only priority for a group of farmers to come together and create a new initiative or organization. The following are loose categories of sharing models that were seen repeatedly throughout the United States.

### 1: TOOL LENDING NETWORKS



Not all tool sharing initiatives include mutual ownership of tools. In the simplest (and perhaps most common) form of sharing, farmers simply lend each other equipment they individually own on an informal, neighborly basis. One example is a network of New Hampshire farmers that were beginning to grow grain and oilseeds. After one farm bought a seed cleaner and began lending it out to others, an informal group came together, with a habit of calling each other up to use the equipment. Farms in the group then voluntarily decided to purchase additional needed equipment, that they then made available to the group.

While this is an integral practice in many farming communities, informal sharing networks are not usually visible or open to the public - and so, inaccessible to beginning farmers, newcomers, or farms that otherwise aren't connected in a strong peer network. For those reasons, some groups have sought to formalize their sharing networks. Friendly farms might list out (say, on a shared Google Doc) their contact information and the equipment that they are willing to share or rent.

Just as new technology platforms have allowed individuals to rent out their cars and houses, several software platforms for farm equipment sharing have emerged. **HarvestPort** was founded by Brian Dewan, who first co-founded a business that supplied bulk container bins for oranges and apples. Brian realized that some of his larger customers (including Del Monte, of fruit cup fame) owned upwards of 200,000 bins at a time, but only used them only a few months of the year. Brian saw an opportunity to provide value in two directions - to larger customers by helping them generate revenue on underused assets, and to smaller growers by providing rental access to needed equipment. The bulk bin rental program program was highly successful,



and inspired the creation of a more evolved software-based business. HarvestPort is a software portal that allows users to list equipment available for lease or rental, and others to submit requests for equipment they are seeking to rent.

HarvestPort's tactic of leveraging existing underused equipment represents a distinctly different strategy than purchasing a new set of equipment for small growers to use. In addition to asking what equipment their community of growers needs, organizers might consider what equipment outside of their grower network might be underutilized - and made available to smaller growers for the good of both renter and owner.

It is always helpful to have clear agreements about tool use - whether use is free or for a fee, and whether farms have neighborly relationships or not. At the end of this guide, you'll find an Equipment Use Agreement that can be used or modified for that purpose.

## 2: DIRECT CO-OWNERSHIPS

In direct co-ownership models, farmers simply purchase tools together, without forming any separate legal entity. Direct co-ownership arrangements tend to come out of close relationships, like family, neighbors and friends. As such, there's a tendency to manage the arrangements casually-- and often without formal agreements. While relationship-based sharing is a very good thing, the lack of clear written agreements can also mean lack of clear planning and understandings between users.

Two start-up farms who were friends and neighbors decided to split the purchase of a tractor. They decided that Farm 1 would buy the tractor, and Farm 2 would pre-pay \$2000 to rent the tractor from them for a set number of hours. Farm 2 used Farm 1's upfront rental fee to purchase the tractor, along with \$8000 of their own money. While the relationship started with a strong sense of mutual generosity, the two parties had not thought through various issues that could occur. The used tractor had engine issues which needed to be fixed, but Farm 1 didn't have time or skill to fix them. As a result, Farm 2 couldn't access the tractor when needed. Farm 2 also needed help operating the tractor, but hadn't made a clear plan with Farm 1 for scheduling and rewarding their operating time. In the meantime, a disagreement over use of shared land came up between the farms, and the relationship soured. Farm 2 walked away from the \$2000 in rental fees after only a handful of hours of use. This group set themselves up for trouble in a number of ways - by making a poor judgement call in purchasing an old machine in need of repair that the farm responsible did not have the capacity to perform. Many inter-farmer sharing agreements sour because the lenders or borrowers do not really have the capacity to maintain or repair equipment, and are often working with finicky older tools.

A straightforward way to plan for success would be to (1) plan for tools to break, by identifying an outside party to repair them in the appropriate time frame, (2) clearly identify the responsibility of repairing and/or paying for the repair as an essential precondition of lending or borrowing, and (3) plan to share only equipment in good working condition.

Clear, written agreements are another important component of success. Janelle Orsi, a lawyer and leader in the Sharing Economy movement, argues that written co-ownership agreements fill three critical purposes:



1. To set a tone for a relationship (encouraging all parties to act in good faith and to set clear behavioral expectations)
2. To provide fallback rules for relationships otherwise managed casually (to protect the relationship during points of conflict)
3. To communicate and keep track of information (storing factual information like financial contributions).

Written agreements are intended to be living documents, and are most useful when all parties understand what they say and can refer back to them during points of confusion or disagreement. A good equipment co-ownership agreement should cover most or all of the key considerations outlined in this guide. Small groups of farmers co-owning a limited quantity of equipment might simply write up a contract (see: Farm Equipment Co-Ownership Agreement) outlining rules for use of the tool and other essential agreements.

Larger groups (say, 4 or more members) or groups sharing a larger array of tools should consider forming a legal entity to own the equipment, as the risk of liability is greater with more equipment and the potential for member transition is higher with more members. An entity such as an LLC or a cooperative, detailed later in this document, have better mechanisms for transitioning ownership and limit the liability of the owners.

### 3: SHARED EQUIPMENT BUSINESSES

The Intervale Center in Burlington, Vermont, is an incubator farm with nine resident farm businesses, managed by a nonprofit organization. Originally, the nonprofit Intervale Center owned and managed a suite of equipment for farmers to use. With a desire to allow farms to build equity in the equipment and also to limit Intervale’s administrative responsibilities, the farmers and the nonprofit together formed an LLC called **Intervale Farmer Equipment Company (IFEC)**. All the existing equipment, including two tractors, implements, and two heated greenhouses were sold to the company for 80% of street value. The resident farm businesses made equal cash contributions totalling about 65% of the equipment’s sale price, while the Intervale Center contributed 35%. IFEC leases a 4-acre parcel of land and a pole barn from the Intervale Center for storage and shop space. Members can sign out equipment from this area, and can also rent shop space to work on their own equipment and projects. Members pay per hour use fees for tractor use, per-year use fees for implements, and per bench for greenhouse use.

While IFEC has the advantage of very close proximity (all the farm members share a single property), a similar initiative was formed by small farms near Durham, North Carolina. Through the **Sustainable Agriculture Tool Lending Library**, eleven farms within a 45-mile radius share access to a set of vegetable growing equipment, including a rototiller, two harrows, two plastic mulch layers, a large trailer, a small manure spreader, a leaf vacuum, a double bottom plow, potato plow, pneumatic post pounder, brush hog, and some hand tools. Each farm pays in \$300/year as the sole fee, and also participates in an annual workday to review operations and perform maintenance on the equipment. Administrative tasks are also divided among the members and performed as volunteers. The tools were originally purchased with grant funds from Rural Advancement Foundation International (RAFI). There is no central storage facility; the equipment is simply stored on the last farm that used it, and users can find the equipment through a Google Calendar used for scheduling. The program has served the farmer group well since 2011, providing very affordable tool access, and also an opportunity for community-building, gathering and sharing experiences.

In these two examples, farmers formed a separate legal entity (in both cases, an LLC) to own a set of tools. This has advantages over direct co-ownership; namely, that forming an LLC limits the liability of those participating, and facilitates transitioning members in and out of the organization.

## 4: EQUIPMENT CO-OPERATIVES

A cooperative is a type of corporation, designed to be owned and governed by its members - that is, the people who use it. To be deemed a cooperative, a business must abide by international cooperative principles, including being governed by their membership on a democratic, one-member-one-vote basis.

As noted earlier, machinery cooperatives are both common and significant parts of the agricultural economy in countries like Sweden, Germany, and Canada. Canadian machinery co-operatives are the subject of a significant body of written reports, detailing their formation process, impacts, and efficacy.

All formal equipment cooperatives encountered during our research (both nationally and internationally) were limited to grain, oilseed, or hay farmers, using the cooperative to access expensive equipment for large acreage commodity crops. In addition, despite a fair amount of literature on the potential for machinery cooperatives in the US, there were few formal equipment cooperatives to be found domestically. Authors

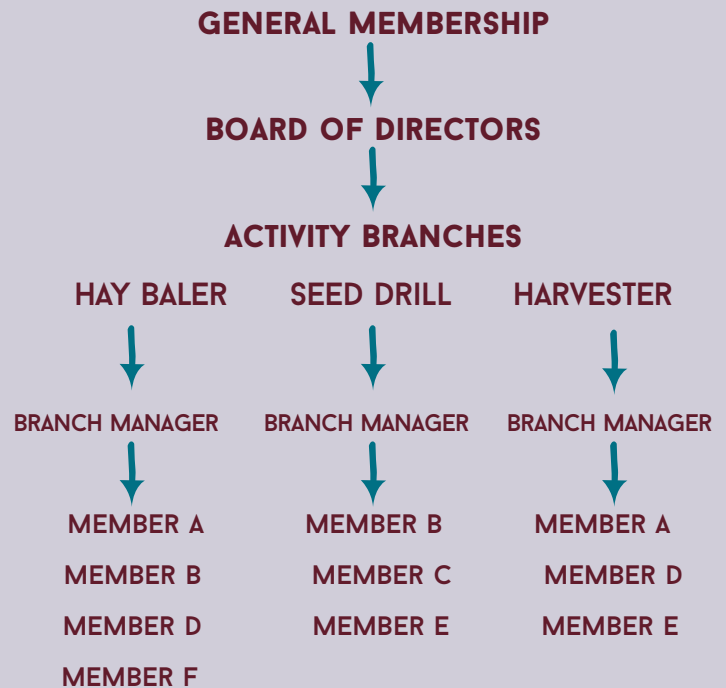
### CUMA COOPERATIVES

*(Coopérative d'Utilisation de Matériel Agricole)*

Machinery cooperatives are common in Quebec and Ontario. A CUMA farm machinery cooperative owns equipment on behalf of its members, each of whom has one vote in the operation of the co-op regardless of how much capital they have invested. The co-op operates at cost, returning any surplus after expenses to the members in proportion to their use, or part is retained for future capital needs. Each member buys in to finance acquisition of equipment and pays ongoing membership fees to cover the cost of maintaining and paying off that equipment. The members can designate farmers within their group to perform administrative duties, or they can hire employees to perform tasks such as scheduling and maintenance. A CUMA cooperative can be open (members can join at any time) or closed (the membership is defined at formation, with periodic opportunities for member expansion). Most machinery co-ops are "closed" cooperatives.

CUMAs are structured to allow for sub-groups of members to share particular equipment. The cooperative is divided into activity branches or pools for each piece or set of equipment.

When a member joins, they sign a contract subscribing them to use a machine for a certain amount of time or acres per year. Members pay a percentage of the upfront purchase price and ongoing member fees. The member fees go toward financing the remaining cost of equipment, maintenance, insurance, repair, and storage.



of machinery cooperative research at Iowa State and Oklahoma State weighed in on why, and believed that more farmers elected for informal sharing or to form LLCs, and that equipment sharing in general may be less common in the States due to stronger cultural preferences for individual ownership.

Nevertheless, cooperatives are an excellent vessel for sharing machinery of all types. Their more set and formal structure can be an asset in that following an established model takes some of the guesswork out of forming a group business in a way that works for the long term.

## 5: PROGRAMS OF STATE OR FEDERAL AGENCY

In some cases, the impetus for an equipment sharing program comes not from the farmers themselves, but from government agencies working within regional farm communities. The **Southern Maryland Agricultural Development Commission (SMADC)** is a state-commissioned agency that seeks to support the agricultural economy of Southern Maryland, with an emphasis on finding alternatives to tobacco growing (the agency was commissioned as part of the Master Settlement Agreement with major tobacco companies in 1998). SMADC launched a successful tool-sharing initiative in the five counties it serves, by working with Soil Conservation District offices (and one Farm Bureau office) to provide low-cost equipment rentals.

Each county’s equipment rental program works a little differently: “The Charles Soil Conservation District, for example, uses its funding to directly subsidize the rental of farm equipment at a local equipment dealership which did not previously offer rentals, while the St Mary’s County Soil Conservation District operates their own full service rental system, including a full-time employee responsible for inspecting and maintaining the equipment as well as offering training when necessary. The Prince George’s Soil Conservation District goes a step farther and offers operator services and rentals of construction equipment as well as farm equipment.”

The Strafford County Conservation District in New Hampshire provides a similar service. A no-till drill, wood ash spreader, yeoman’s plow, and soil aerator are made available to rent through the District Conservation office at a nominal cost, as part of a larger initiative to reduce nutrient runoff into area waterways. The program has proved popular with area farmers, and the District is now looking to expand its equipment offerings.

The administrative tasks and costs are covered by Conservation District personnel and the equipment purchases are funded by grants. That allows the District to rent out the equipment for very low use fees that cover only the maintenance and replacement costs of the equipment.

A number of government agencies have developed programs to provide equipment to area farmers at low cost, as part of their broader missions to support agricultural economies or to support conservation practices.

Key in these programs are:

- Resource Soil Conservation Districts, agencies that are tasked with managing and protecting area soil and water resources.
- Agricultural & Economic Development Agencies: State-commissioned agencies (such as SMADC) that are focused on supporting regional agriculture or rural economic development.

These programs exist in sufficient numbers and with enough longevity and demonstrated success to consider this a proven, replicable approach. Dozens of county Soil and Water offices in the Northeast now own no-till drills-- and often other equipment --to make available to area farmers. Any farmer group strategizing around equipment access might consider reaching out to their local conservation district office, or a state-commissioned agricultural development agency if one exists in the area, to see if funding or support might be available for starting or expanding an equipment rental program.

## 6: PROGRAM OF A NON-PROFIT AGENCY (NGO)

In many cases, particularly among pools of start-up vegetable farmers, tool sharing programs were hosted by or organized by local nonprofits focused on either ecology or agriculture. For example, Farm Alliance Baltimore is a network of urban farms focused on supporting their membership by providing resources and services. They hosted a farm tool library as a low-priority but helpful program, alongside shared greenhouse space and a shared farmers market stand. Two chapters of the National Young Farmers Coalition, one in Roaring Fork, Colorado and one in Santa Fe, New Mexico are partnering with local nonprofits to host a tool sharing program. In Santa Fe, a sister organization to the Santa Fe Farmers Market acts as fiscal sponsor to the program and provides storage space for the tools. In the Roaring Fork Valley of Colorado, an organization called Aspen TREE is partnering with the Coalition chapter to launch a farm machinery rental program. Aspen TREE allocated \$50,000 of grant funds to purchase tools, and will provide equipment trainings, storage space, and administrative support.

Equipment sharing programs are a great way for agriculture- or ecology-focused organizations to support the agricultural community and generate tangible cost-savings and expansion opportunities for farms. These initiatives may be led by farmers and supported by the organization, or the organization might take on the onus of organizing as well - with sufficient initial and continued farmer input.

## SUMMARY

Equipment-sharing initiatives come in a range of forms, both formal and informal, both small and large groups, sharing anywhere from a single piece of equipment to a comprehensive suite of tools. In nearly all cases, the purpose of the initiative is to provide an important service, not to generate a profit. Yet, owning and maintaining equipment has costs and therefore must run in a business-like fashion, collecting fees or other revenue to cover those costs.

# CHAPTER 2

---

## DESIGNING YOUR EQUIPMENT SHARING PROGRAM

### 1. EQUIPMENT AND SERVICES

#### WHAT EQUIPMENT MAKES SENSE TO SHARE?

Equipment sharing will be most likely to succeed if the following conditions are met.

**SUFFICIENT INTEREST:** First and foremost, equipment should be worthwhile to acquire and maintain. Unless funded by other income, there should be enough desire to use the equipment that its use fees can cover the costs of owning and maintaining it. To inform this question, organizers can survey potential equipment needs and estimate the equipment costs versus the potential use fees.

**COMPATIBLE WITH USER NEEDS:** Farm tools come in many sizes and specifications. Even if users indicate sufficient interest in a category of equipment, organizers will need to dig deeper to make sure farmers with similar equipment needs can actually use the same equipment. For example, users may need tractors of similar horsepower or hitch design; or vegetable implements sized to a particular bed width.

**WORTHWHILE TO SCHEDULE AND TRANSPORT:** Users must be willing to go through the effort to schedule, pick up and transport equipment. Members may be willing to drive longer distances for high-cost tools they are unable to purchase them-

selves, or tools that are used seldomly. Lower cost or more frequently used tools may be preferable for the farm to purchase and have on site, if they are able. What producers consider worthwhile to pick up and transport will vary with cost, distance, frequency of use, and each farm's preferences and financial position.

**SUFFICIENT TRAINING AND SUPPORT:** Some users may need training or technical support on some equipment, or may prefer custom operation. The group should consider if they are able and willing to provide those services, and if not, if the tools are still appropriate to acquire and make available for use.

**MAINTENANCE CAPACITY:** The more moving parts a piece of equipment has, the more maintenance that will be needed, and the more potential for damage. While some equipment may require little to no maintenance, more complex equipment would greatly benefit from a maintenance regimen and a plan for repair -- such as identifying a skilled person with sufficient time and availability to fix the machine, and allocated funds for parts and labor.

**FEASIBLE WITHIN TIME AND WEATHER CONSTRAINTS:** Equipment associated with highly time-sensitive activities will present additional scheduling challenges that should be considered in advance. Some flexibility and patience is required on the part

of users in sharing any equipment - but enough producers must be able to make use of the tools to make them worthwhile to own and maintain. If there are scheduling bottlenecks, the group might consider: how many producers can this tool reasonably serve? If there is strong interest, does it make financial sense to purchase multiples of that tool?

**WITHIN REGULATORY LIMITS:** Some specific shared equipment or infrastructure - such as livestock processing units or food processing kitchens - must comply with health code or other regulations.

In summary, a tool-sharing program is unlikely to thrive if there is not sufficient interest in particular tools that are well-matched to users' operations and worthwhile to schedule and transport. The first and most important component of determining feasibility is to determine if there is a critical mass of users who have compatible needs and are close enough together to make worthwhile use of the tools. The end of this guide includes a survey of equipment needs with a list of common equipment

**WILL OTHER SERVICES BE PROVIDED?**



Tool-sharing programs are often coupled with other farm services - such as renting shop or greenhouse space, providing equipment training or operation, or bulk purchasing supplies - depending on the needs of their members. While each service offered will require additional research, planning, and administration, stacking services can help round out the business model of a tool-sharing program, potentially increasing the group's capacity by making rented space or a hired administrator more worthwhile. For example, Intervale Farmer Equipment Company (IFEC) provides shop space for rent, which both provides its members a valuable service and also offsets the company's land and building rent payments -- their largest cost. Below is a list of some related services that may be of interest to groups organizing around shared equipment.

- Shared Infrastructure
- Training & Education
- Custom Hire
- Bulk Supply Purchase

**REVIEW & CHECKLIST:  
EQUIPMENT AND SERVICES**



**STEP 1: DETERMINE EQUIPMENT INTEREST**

- Use a producer survey to determine if there is significant interest in equipment sharing, and identify which tools have sufficient interest from area producers by soliciting their input. Identify interest in other services, if offered.

**STEP 2: DIGGING DEEPER & DETERMINING FEASIBILITY OF SHARING**

- Is the proposed equipment compatible with the users' existing equipment and/or operating practices?
- Are the potential users able to transport the proposed equipment? Are they willing to drive to the proposed storage location to pick up?
- Do the potential users know how to safely operate the equipment, or is the needed training within the group's capacity to provide?
- Does the organizing group have the capacity to properly maintain the proposed equipment?
- Is the proposed equipment used for highly seasonal or weather sensitive activities? If so, how many users might the equipment reasonable serve?
- Are there regulatory concerns for the proposed equipment?



## 2. FINANCIAL FEASIBILITY & PLANNING

How will your equipment-sharing program work financially? Will you be able to provide a cost-savings to members, while keeping the program running smoothly? To answer this question, you will need to make a few key financial decisions, research costs, and build a budget for your program.

### I. BUDGETING COSTS

The costs to run an equipment-sharing program break down into a few categories:

#### OWNERSHIP COSTS + OPERATING COSTS + LABOR COSTS

**OWNERSHIP COSTS** are the costs of owning the equipment -- that is, the money you'll spend on equipment loans (if you'll have them), or the money you'll budget to eventually replace the equipment or return capital to members. There are two ways most groups you budget for ownership costs:

- **FINANCING COSTS - LOAN PRINCIPAL AND INTEREST PAYMENTS:** Some groups will rely on loans for equipment purchase, and will therefore need members to pay in to cover those financing costs. Groups can build loan payments into use fees along with other expenses, or, loan payments can be separated from use fees, and members can pay in toward loan payments separately (this decision depends on how you are tracking ownership, discussed in the next chapter).
- **DEPRECIATION:** Depreciation is the decreasing value of the equipment over time. If an implement costs \$10,000 at purchase, and is expected to resell for \$3,000 after 7 years, then the group will incur a \$7,000 depreciation cost over those years (or \$1,000/year). Jon Jaffe, the Vice President of Farm Credit East, recommends the following simple equation for budgeting depreciation:

#### ANNUAL DEPRECIATION = PURCHASE PRICE - 25% RESIDUAL VALUE / 7 YEARS

In other words, groups should plan for equipment to last 7 years, and expect to sell it off at 25% of its original price at the end of that period. Of course, some equipment may last significantly longer or reclaim a significantly higher resale price - but Jon suggests those numbers as a conservative planning benchmark.

Budgeting depreciation in as a cost builds up a reserve of cash that can be used to purchase new equipment when the existing equipment wears out -- or, the cash can be given back to members if the group decides not to continue.

The group may want to budget for depreciation costs and bill those costs to the users through use fees. If not, the group will pay lower use fees through the life of the equipment, but will not have group funds in place for new purchases of equipment or to return the same amount of starting capital to the members. Using the example above, the group that purchased that \$10,000 implement will either need to charge the membership \$1000 per year, or anticipate only having \$3,000 of resale value in year 7 when the group may dissolve or wish to purchase a new implement. Whichever choice the group makes, it should be an informed choice -- meaning that it is helpful to note your depreciation cost whether or not you bill it to users.

**OPERATING COSTS** are the costs you will incur to keep the equipment and the program in good order. This may include:

- **INSURANCE:** A quote from an insurance agent will give the most reliable cost estimate, but insurance on equipment tends to run between .5%- .2% of equipment value. In addition to insuring the equipment itself, the group will also want to take out general liability insurance, and/or should require that the farms participating have general liability insurance with the equipment-sharing group listed as additional insured.
- **LEASE FEES** if you will rent land or buildings to store the equipment in. Equipment stored indoors reduces repair costs and increases resale value.
- **UTILITIES** if you will have a storage or shop building (electricity, heating, waste collection, and snow removal/mowing are all possible costs)
- **TAXES:** While many states (including New York) do not charge property taxes on farm machinery, those in states that do can estimate 1% of the equipment value.



- **FUEL AND FLUIDS** are often purchased by the operators, and so not an included cost in a equipment sharing venture. If supplied by the group venture (for ease or bulk discount purposes), these costs are passed on to the users through use fees.
- **REPAIR COSTS** may include either repair materials if performed in-house, or repair service fees if performed by an outside party. Repair costs are highly variable given growing conditions, machine age, use and storage, who is performing repairs, and type of machine or implement. The best estimates are based on your own historical data. Groups without historical data can use a percent of equipment value to budget for repairs. A list of equipment and the repair costs as a percent of value can be found in “Estimating Farm Machinery Costs,” in the Resources section. As a very broad metric, machines and implements in their first quarter of useful life (under 3,000 hours for tractors and under 600 hours for implements) have average annual repair costs of 5% of value or under.

- **OFFICE AND ADMINISTRATIVE FEES**, which may include bookkeeping software, office supplies, and filing fees.
- **ACCOUNTING SERVICES:** In particular, groups forming a legal entity to own the equipment will need to file a tax return for that entity. In New York State, a business return costs ~\$700-\$900 per year. A new program starting out may need additional accounting services to assist in setting up the bookkeeping system and accounts to track members’ ownership, if applicable.

Some equipment-sharing programs are embedded in larger organizations, which might share or absorb some of these administrative and accounting tasks. **LABOR COSTS:** The tasks involved in running a equipment-sharing program include:

- Bookkeeping, budgeting, financial tracking and billing members for use fees

## PARTNERSHIP TO LOWER COSTS



Many of the farmer groups interviewed worked with organizations in their area to help start or run the program. Examples include:

- **ADMINISTRATIVE PARTNERS:** in some cases, local nonprofits, local Soil and Water offices, and local rental agencies have hosted the programs and handled equipment rentals.
- **FUNDING PARTNERS:** Area nonprofits may be able to write your program into a grant application, or may have small funding pools they are willing to grant to the group. They may also be willing to act as fiscal sponsor, if the group is choosing that route.
- **DONORS:** Some local businesses may have small grant pools or standard donation practices as well. The National Young Farmers Coalition New Mexico Chapter received a significant in-kind tool donation from Johnny’s Seeds, for example. The same group also hosted a fundraising dinner to raise cash for tool purchase: highlighting that the local community can also be considered an important project partner.

Who would be likely allies? Might any of these groups give a donation, provide repair or administrative services, provide information, offer a storage location, write a grant or help the group write one? Approaching these groups with a range of needs and options for participation (not all of which require giving money) may be a good way to open relationships and see what they are willing to offer.

- |   |                                    |
|---|------------------------------------|
| • Rental companies                                | • Farm-related non-profits         |
| • Conservation districts / Soil and Water offices | • Local ag development commissions |
| • Small Business Administration                   | • Local Grange                     |
| • The Farm Bureau                                 | • Farm Credit                      |
| • Tractor dealerships                             | • Tool companies                   |
| • Community members                               |                                    |

- Coordination, scheduling, checking tools in and out
- Training members on equipment use
- Routine maintenance of equipment
- Repairing equipment when broken (if performed in-house)

If you will pay either group members or non-members for their time, you'll add labor costs to your budget. Some groups run entirely or partially off volunteer labor from their members (and some include a certain amount of labor time as a requirement of membership). This has the advantage of keeping the costs to run the program low, and therefore the per-use equipment costs low. However, other groups benefit from having paid administrators and/or paid maintenance and repair personnel. Having paid personnel ensures that the tasks will be performed in a timely manner, where otherwise active farmers may not have the capacity while also managing their farms. If the program has paid staff that are not contractors, the program will also incur payroll costs, including workers compensation, federal, state, and local payroll taxes and unemployment insurance.

## II. REVENUE SOURCES AND FEE STRUCTURES

The key question for financial viability is whether the program can adequately cover its costs (outlined above) while maintaining reasonable and attractive use fees for its members. Virtually all tool sharing initiatives charge members use fees that cover most or all ongoing costs. Some programs also rely on grant funds, and others run additional services or programming that offset some of their costs.

### SETTING A FEE STRUCTURE

Use fees can take a variety of forms. Various programs charge members for:

**ANNUAL MEMBERSHIP FEES** to take part in the program and gain access to tools. For a group of young farmers in New Mexico with mostly hand tools, this flat annual membership fee is the only charge for unlimited use of the equipment. For Intervale Farmer Equipment Company, an annual membership charge is one piece of a multi-part fee structure, in which members also pay per-hour or per-year use fees.

**PER-USE RENTAL CHARGES** for particular equipment, that may be assigned either:

- **Per hour.** This is common for tractors and other equipment with hour meters.
- **Per day or week.** This is a standard rental practice for equipment rental agencies, which often have day rates and lower week rates.
- **Per year.** For example, IFEC charges members a flat per-year rental fee per implement, no matter how often a farm uses it.
- **Per acre.** This is common for large-acreage equipment like hay balers and combines.

**DIRECT EXPENSES BILLED TO USERS**, such as diesel or propane, or repairs determined to be the responsibility of the user.

Use fees should be sufficient to cover all operating costs, unless continually supported by outside funding. A new program without historical data will have to set fees based on projected estimates of both costs and equipment use. Groups can set use fees through a variety of methods:

1. By using market rental rates for various equipment as a basis for their fees, and lowering the fees if revenue consistently exceeds expenses.
2. By costing out each piece of equipment, and basing estimated use fees accordingly. Organizers can use an equipment cost calculator to determine the total cost of owning and maintaining a given piece of equipment, and divide that cost by the number of anticipated uses (by expected hours, day rentals, or acres, depending on the metric used).

Two (fictional) examples on the following pages illustrate the financial planning and feasibility assessment process, and how different growers might arrange their use fees.

## CALCULATING USE FEES:



To determine use fees, calculate the cost of owning and operating the equipment, then divide it by its anticipated use.

### OWNERSHIP COSTS

### HOW TO CALCULATE

Depreciation Purchase price - 25% Residual value / 7 years) \_\_\_\_\_

OR

Financing Cost Annual loan payments you will make \_\_\_\_\_

### OPERATING COSTS

If you have more than one piece of equipment, you can calculate the total for the whole program, and divide these costs across the equipment (i.e. assign a percentage of operating costs to each machine or tool).

**INSURANCE** Quote or .5%- .2% of equipment value \_\_\_\_\_

**LEASE FEES** \_\_\_\_\_

**UTILITIES** \_\_\_\_\_

**TAXES** 1% of value, or 0 if farm machinery is not taxed in your state \_\_\_\_\_

**REPAIR COSTS** 5% of value, or your estimate \_\_\_\_\_

**OFFICE & ACCOUNTING** \_\_\_\_\_

**LABOR COSTS** Estimated hours x hourly rate + payroll costs if employee (estimate around 15%) \_\_\_\_\_

**TOTAL OPERATING COSTS** Sum of above \_\_\_\_\_

### USE FEES

% of Operating Costs (line above) assigned to this equipment: \_\_\_\_\_

Anticipated Use Number of rentals, hours, acres likely to be used \_\_\_\_\_

**FEE = OWNERSHIP COSTS + % OF OPERATING COSTS / ANTICIPATED USE** \_\_\_\_\_

### III. SAMPLE BUDGETS AND FEE STRUCTURES

#### EXAMPLE 1: SMALL VEGETABLE & LIVESTOCK EQUIPMENT POOL

A group of 10 mixed vegetable and livestock farms are working with a local agricultural non-profit to start a shared equipment pool. The local non-profit has secured a \$60,000 grant to purchase equipment, and the organizing group has also secured about \$5,000 in in-kind donations from tool companies. They therefore have no financing costs related to purchasing equipment; however, repairs, maintenance, storage space, insurance and other related costs must be covered by use fees. They plan to build up a cash reserve as well to replace equipment or cover unexpected costs. Regular maintenance and minor repairs will be performed by an area farmer in semi-retirement, who has also agreed to perform custom tractor operation for the newer farms in the group, schedule permitting. Bookkeeping, billing, and coordination of tool rentals will be covered by the non-profit partner, in exchange for an annual fee.

In budgeting their costs, they found that their total annual program costs amounted to about 20% of the total purchase price of the equipment. So, they set their fee structure simply by multiplying the purchase price of each piece of equipment by 20%, then dividing it by the number of anticipated uses per year.

Running the numbers this way, they found that each farm would pay an average of \$1600 annually for access to \$65,000 in equipment - a number that seemed very reasonable and gave them the confidence to move forward with the program.

## FEE STRUCTURE

**Annual Membership Fee (covers administrative costs and gives access to trailer and hand tools): \$300**

### Use Fees (partial List)

Equipment	Purchase Cost	Annual Cost	Anticipated Use	Use Fees
75 HP Tractor	\$41,000	\$8200	150 hours/yr	\$55/hr
Livestock Tractor	\$3,500	\$700	14 day rentals/yr	\$50/day
5' Rotary Mower	\$4,000	\$800	14 day rentals/yr	\$55/day
Greens Harvester	\$550	\$110	15 day rentals/yr	\$15/day
Poultry Crates (20)	\$800	\$160	7 day rentals/yr	Transport
Trailer	\$3,000	\$600	4 farms	Free
Hand Tools	\$1,000	\$200		Free

# EXAMPLE 1 BUDGET

## INCOME

Anual Membership Fees	10 farms, \$300/yr	\$3,000.00
Tractor Rental	Hourly, Estimated 150 hrs/year @ \$55/hr	\$8,250.00
Implement & Hand Tool Rentals	According to Feel Schedule and anticipated use	\$4,800.00
Custom Operation	Service direct bulled to members - estimated 40 hours at \$40/hr tractor operation	\$1,600.00

## TOTAL INCOME

**17,650**

## EXPENSES

Insurance	<i>Estimated at .5% of total equipment value</i>	\$400.00
Rent	<i>Garage for repairs and 2 acres for equipment storage, \$400/mo</i>	\$4,800
Utilities		
Electricity		\$1000.00
Waste Disposal		\$100.00
Fluids & Shop Materials		\$500.00
Fuel Purchase	Zero if provided by users	\$0.00
In-house repair and maintenance	40 hrs @ \$35/hr	\$1,400.00
Contracted Repairs	<i>Repairs performed by local equipment dealer</i>	\$1,000.00
Cash Reserve	<i>5% of total equipment value for replacing equipment and other unanticipated expenses</i>	\$3,250.00
Administrative Costs	<i>120 hrs @ \$25/hr for billing, bookkeeping, and coordination</i>	\$3,000.00
Custom Operating Labor	40 hrs @ \$35/hr	\$1,400.00

## TOTAL EXPENSES

**17,250**

**EXAMPLE 2: SPECIALIZED HARVESTING EQUIPMENT**

A grower planted 20 acres of hybrid hazelnuts, an exciting new climate-resilient crop. As his planting approached maturity, he began developing a harvest plan - and realized he would need far more labor for a 2-week period than the local labor pool could provide. He looked into mechanical harvesters, and found a 1988 blueberry picker for \$60,000 that would be perfect for hazelnuts. He contacted two other hazelnut growers within a 100-mile radius, to see if they'd be interested to share the equipment. The other two growers had 15 and 5 acres planted, respectively -- so 40 acres total between the farms. First, he checked the harvest speed on the machine: at 1.5 acres per hour, it should be able to harvest all 40 acres comfortably within a 2-week harvest window, including transport time between the 3 farms. With that question resolved, he ran the numbers. Using the machine cost calculator for a similar harvester, he determined that the machine would cost about \$5,000/year in depreciating value, transport, insurance, and gas to operate. That seemed reasonable and significantly lower cost than hiring hand-pickers. The three agreed to purchase the machine, and divide the upfront purchase price and ongoing expenses by their respective acreage (50%, 37.5%, and 12.5%). Grower 1 would put in \$30,000 toward purchase, grower 2 would put in \$22,500, and the smallest grower \$7,500. They signed a co-ownership agreement detailing use of the machine and other important considerations. Because they were not planning to replace the machine, they did not pay in toward depreciation or replacement costs - just simply the operating expenses of insurance, fuel, maintenance and repairs. Grower 1 calculated the annual costs at the end of the year and billed the other two growers based on their percent of the costs.

**1988 Blueberry (Hazelnut) Harvester**

Ownership Cost

Purchase price: \$60,000  
 Equivalent price of new machine: \$120,000  
 Age of machine when purchased: 20 years  
 Years of ownership remaining: 10 years (anticipated)  
 Estimated value at end of ownership period: \$34,000  
 Estimated depreciation cost: \$26,000 (\$2,600/yr)

Estimated Annual Operating Costs

Insurance: \$600  
 Housing: \$400 (at Grower 1's farm)  
 Fuel and Lubrication: \$475  
 Repairs: \$800  
 Total Operating Costs: \$2275

Operating costs will be billed to members annually, by dividing the costs according to the members' acreage.

According to the group's decision, depreciation cost will not be billed to members. If and when the group sells the equipment, they will divide the resale value proportionally by acreage, just as they bought in.

**IV. FROM PLAN TO ACTUAL**

A budget is only a plan -- what happens if revenue doesn't cover costs, or greatly exceeds them? In order to avoid the scenario of having to contribute additional cash, the group can plan to build a cash reserve for unanticipated expenses (and charge use fees accordingly to build up the reserve). If expenses chronically exceed revenue, it may be wise to seek additional members (if the equipment can effectively serve more farms), or plan to increase fees to existing members. If a group of farmers owns the tools together (as opposed to a nonprofit program or a sharing network), they will also need an agreement about how surplus revenue and excess costs are distributed. You'll find more information on these agreements in later sections.



## REVIEW & CHECKLIST: FINANCIAL PLANNING

### STEP 3: KEY BUDGETING DECISIONS:

- Will you budget to replace equipment or reclaim members capital, or forego building a capital recovery reserve to keep use fees as low as possible? State your general goal or strategy for replacing machinery:
- \_\_\_\_\_
- \_\_\_\_\_

- Will you pay administrative and/or maintenance personnel, or will you perform these tasks as volunteers?

### STEP 4: BUILD YOUR BUDGET:

- Research and estimate costs: Which of the bulleted expenses above are applicable to your program? What will they cost for a program of your size?
- Explore options for partnership: what local agriculture, sustainability, or economic development organizations are there in your region? Might they be interested to support your effort?
- Estimate use: Based on grower responses, how much is each piece of equipment likely to be used?
- Determine your use fees: divide estimated costs over estimated use.

### STEP 5: CHECK FEASIBILITY:

- Do the projected use fees seem reasonable and desirable for growers, while adequately covering anticipated costs?

## 3. OWNERSHIP

### I. APPROACHES TO OWNERSHIP

There are two general approaches to equipment ownership: one in which the tools are owned by a third party (such as a nonprofit or government agency -- or even a local rental company), and one in which the tools are owned by the farmers themselves.

#### FARMER OWNERSHIP:

- Farmers own a portion of the equipment's value, which may allow for building of equity and net worth.
- For the most part, farmers fund the purchase of equipment with their own capital.
- Farmers are collectively responsible for operations and administration (or, must hire an administrator).
- Farmers would need to lead the organizing effort, determine feasibility, and form agreements around use and cost-sharing.

#### THIRD-PARTY OWNERSHIP:

- Farmers have access but not ownership. Farmers do not hold equity in the equipment.
- The organizing effort may be led by either farmers or the third party, or both.
- Equipment purchase may be funded by a third party (i.e. grants or donations).
- The third party may perform some or all administrative responsibilities.

It's worth noting that financial ownership is often, but not always, connected with decision-making and management responsibilities. Farmer ownership almost always means farmer control (such as making ongoing organizational decisions). However, equipment sharing programs in which the equipment is owned by a third party (as in a supportive non-profit) may still be farmer-controlled. Many farmer groups that partner with a third party retain substantial decision-making capacity and a sense of creative ownership, if not financial ownership.



## II. CHOOSING AND CREATING A LEGAL ENTITY

Do you need to form a legal entity? If so, which one? As referenced in the Profiles section, the frequent options for equipment sharing are:

**NO CO-OWNERSHIP:** Group members retain individual ownership of tools and lend or rent them to each other. No legal entity is formed.

**DIRECT CO-OWNERSHIP:** Group members form and sign a co-ownership agreement. No legal entity is formed.

**LLC:** Group members form an LLC to own the tools. The LLC entity limits the liability of the members. State-specific information for forming an LLC are listed on each state's Secretary of State website. The formation process is fairly straightforward. A group would:

1. Choose a business name and check for availability of that name with the Secretary of State
2. File the Articles of Organization with the Secretary of State and pay a filing fee (usually \$50–\$100).
3. File a Statement of Information with the Secretary of State within 90 days of filing the initial Articles of Organization using Form LLC-12, and pay a nominal filing fee.
4. Create an Operating Agreement.

**COOPERATIVE:** Groups seeking to operate by cooperative principles can organize as a cooperative corporation. According to the IRS, a cooperative is a business that is member-owned, member-controlled, and generates member benefit.

Cooperatives, as a type of corporation, have required management practices, including formal processes for electing officers and directors, filling vacancies on the board, holding board and shareholder meetings, keeping meeting minutes, recording board resolutions, keeping records, and filing annual reports. They must also meet the requirements of the state's cooperative statutes. The formal structure of a cooperative corporation means that the provisions that keep them dedicated to member benefit and democratic management cannot be changed, or written out of their bylaws by future members.

Groups wishing to form a cooperative may contact a cooperative development agency for assistance with setting up their legal entity. The Cooperative Development Institute, for example, offers new groups up to five hours of free technical assistance.

**THIRD PARTY OWNERSHIP:** Equipment is owned by a non-profit, government agency, or another business, for which an entity has already been formed.



Readers seeking additional guidance on choosing and forming legal entities can consult the Resources section for a legal-entity decision-making map. Readers may also wish to consult an attorney, who can give further guidance, including on state-specific entity requirements.

### III. OWNERSHIP AGREEMENTS

Groups purchasing equipment with their own capital will need ownership agreements (contracts, operating agreements or bylaws) that cover key considerations. The purpose of these documents is to help the group navigate membership transitions, anticipate challenges, and clarify working relationships. They are living documents that ideally all members understand and can refer to when needed. If the group is forming an entity such as an LLC, these agreements also serve the purpose of formally establishing the business and clarifying its operations to lenders, banks, and other external parties.

This guide includes two annotated ownership agreements.

The first, **FARM EQUIPMENT CO-OWNERSHIP AGREEMENT**, is a contract for direct co-ownership, and is intended for smaller groups that do not wish to form a legal entity. The second, **LLC OPERATING AGREEMENT TEMPLATE FRAMEWORK** is a set of terms that can be incorporated into a standard LLC operating agreement. Groups wishing to form an entity such as an LLC are encouraged to seek professional legal services in creating their operating agreement, and to review the key considerations below as points of discussion.

The attached documents are for information purposes only and do not constitute legal advice.

### IV. KEY CONSIDERATIONS FOR CO-OWNERSHIP

#### MEMBERSHIP

- Who can join? How many people can join? Will the group take on new members in the future, or is the group closed? These questions are connected with the financial and logistical concerns, and should be informed by business planning (how many participants are needed for financial viability, and how many participants can the planned equipment reasonably serve?).
- What are the rights and responsibilities of members? For example, will members have a work requirement? Both Intervale Farmer Equipment Company and the Sustainable Agriculture Tool Lending Library require members to put in work time maintaining equipment or tending administrative matters. Are the members required to hold insurance, attend trainings, or abide by any other agreements?

#### GOVERNANCE, MANAGEMENT AND MEETINGS

Group members should understand and agree on:

- How, when, and by whom are decisions made? Will the group hire a manager, delegate decisions to individuals, delegate decisions to committees, or make decisions as a whole group? Usually at least a few major decisions, such as admitting new members or making major purchases, are made by the whole group.

#### NONPROFITS AND FISCAL SPONSORSHIP



Some groups may be interested in forming a nonprofit organization to own the equipment and operate the program. However, there are substantial paperwork, recordkeeping, and other bureaucratic requirements needed to start and maintain a non-profit, that would likely prove impractical for most tool-sharing groups. An alternative is to seek fiscal sponsorship from another nonprofit organization. Fiscal sponsorship is the practice where an established nonprofit lends its tax-exempt status to groups with compatible missions and activities, usually in exchange for a contractual agreement and fee. Groups can reach out to nearby nonprofits with aligned missions, or to nonprofits specifically formed to act as fiscal sponsors elsewhere.

- By what process will whole-group decisions be made? Small groups may choose consensus of all members (especially where relationships are strong and behavior expectations are generally clear and understood). Larger groups may lean toward majority vote or a modified consensus process for expediency.
- What is the format, schedule, and requirement for meeting? Many groups require members to attend an annual meeting to review important matters.

## ALLOCATING PROFITS AND LOSSES (OR SURPLUS AND DEFICIT)

What happens when the group generates more revenue than it costs to run the program? What happens if costs exceed revenue? On a principle of fairness, the same method is generally used for both distributing excess and deficits. The two general methods used are:

1. **BY OWNERSHIP:** profits and losses are allocated according to the members' percentage ownership of the equipment or of the company.
2. **BY USE:** profits and losses are allocated according to members' use of the equipment. In practice, this generally means calculating each member's total use fees relative to the total fees paid by all members, and allocating the surplus or deficit by the same percentage.

It's important to note that cooperative principles dictate that surpluses and deficits (these are the term used in cooperatives -- rather than profits and losses) be allocated by use, not by ownership. Groups wishing to form a co-op or simply wishing to abide by cooperative principles should choose the second method.

## CONTRIBUTIONS & DISTRIBUTIONS

*"How much is each member expected to contribute initially? Will only cash be acceptable, or will equipment contributions be accepted? How will contributions be valued? When and how often will contributions be expected? What will be the timing of payments?"*

-- Machinery Sharing Manual for Fruit and Vegetable Growers, pg. 22

These questions above, should be answered in the group's ownership agreements. In addition, the group should consider the following:

**ADDITIONAL CONTRIBUTIONS:** If expenses exceed revenue, members are often expected to put in cash to cover expenses. For example IFEC's agreements state that "all members accept the collective risk of equipment failure and understand that as a member of the LLC they may be required to provide time or money to ensure the continued use of the shared resources."

**KEEPING CAPITAL ACCOUNTS:** Tracking each member's ownership, via keeping capital accounts, is an important component of group ownership. A capital account is a record in the company's ledger, showing owners' initial investment plus or minus any profits or losses allocated (see above).

## FINANCIAL RECORDS

Keeping financial records for accounting, lenders, and internal purposes is also a necessary function of a group venture. Farm Credit recommends the following set of financial record-keeping practices:

- Maintain accurate and updated financial records including current record of all business receipts and expenses with appropriate allowances made to each Member.
- Maintain tax basis capital accounts for each capital interest Member. Each Member's capital account shall be adjusted for contributions of capital, allocation of taxable income and distributions.
- Annually prepare a Capital Spending Plan, projected Income Statement, and projected Cash Flow statement.
- Annually update a fair market value (FMV) balance sheet showing ownership of all property used in the business and business debt. Members should agree on the values. FMV capital accounts for each Member should be updated annually.

Groups may designate an outside party (bookkeeper or accountant) to perform some or all of the above functions, and/or designate a member within the group. The Sustainable Agriculture Tool Lending Library elects a treasurer to oversee financial record-keeping and budgets, while IFEC dedicates a committee to the task. Most groups will also want to hire (and budget for) an accountant to prepare annual tax filings for the group venture.

## PLANNING FOR TRANSITIONS IN MEMBERSHIP

One of the most important agreements a group should make is on what happens when a member needs to leave the business. This agreement, often called a buyout agreement, should cover:

- The amount of notice, format required, and any other stipulations for declaring intent to leave the business
- The process for determining the value of the member's share
- Provision for payment of departing member's share value (at once or over time, and if paid over time, whether or not interest will be paid).

The central concern is the process for valuing a member's share of the business. The goal is to avoid disagreements about what value a member owns at the time the member is trying to leave, by having a clear understanding of how that will be calculated.

### 1. DETERMINE THE VALUE OF THE BUSINESS:

When it comes time to buy the member out, the members must determine the current value of the business in an agreed-upon manner. For an equipment-sharing pool, that would mean determining the current value of the equipment, plus any cash the business owns. In the absence of an actual purchase offer, there's no perfect way to assess the actual value of used equipment. However, the group may go by its depreciated value (as calculated by the group, see pg. #) or have its value assessed by an outside party. The departing member is then entitled to his or her percentage of that agreed on value.

### 2. DETERMINE HOW MUCH OF THE BUSINESS THE DEPARTING MEMBER OWNS:

Each member's percentage ownership is generally based on their capital account -- that is, the amount in their capital account divided by the total sum of all the members' capital accounts.

Member 1: \$10,000, 50%  
Member 2: \$8,000, 40%  
Member 3, \$2,000, 10%

The group may wish to work with an accountant track capital accounts, so accurate records are maintained. The Resources section contains additional worksheets and information about tracking ownership.

Progressive Farmers, LLC, originally a group of four corn and soy farmers in Iowa, had one of their members request to leave the group due to changes in his farm operation. Without an agreement on how to value the equipment, the four had to negotiate what the departing member should be paid. They were able to navigate that process, but were also faced with a second problem once Member #4 had left: they were over equipped for the remaining acreage, and their per-acre costs would now go up.

Membership transitions, especially in small groups, can be financially destabilizing. Some groups limit the members' ability to withdraw from the business by requiring usage commitments, tied to a financing term or equipment replacement cycle. That way, if the group can't find an additional member to replace the departing one, it has the option of ending the arrangement without financial hardship.

## REVIEW & CHECKLIST: OWNERSHIP



### STEP 6: DETERMINE OWNERSHIP MODEL

- Will the tools be owned individually by farmers, co-owned by the group, or owned by a third-party?

If the tools will be co-owned by farmers:

### STEP 7: FORM ENTITY AND OWNERSHIP AGREEMENTS

- Will the group form a legal entity (Cooperative or LLC) to own them? Which business structure seems advantageous to your group?
- Use the Farm Equipment Co-ownership Agreement and the Key Considerations for Co-Ownership as a discussion tool for the group. Note any preferences or agreements the group has about these arrangements to bring to an attorney.
- Have an attorney draft or review an ownership agreement (contract, operating agreement, or bylaws) appropriate for your group.
- Have an accountant or accounting-savvy group member set up financial records, including capital accounts.



# 4. OPERATIONS



The considerations below relate to the day-to-day tool use and running the program. Operational items can be addressed in operating agreements or bylaws if you have them, or they can be detailed in a separate, stand-alone agreement such as a list of policies or an all equipment use agreement. You'll find an example equipment use agreement at the end of this guidebook.

## I. ADMINISTRATION & COORDINATION

For most groups, meetings and decision-making are relatively simple affairs. Most groups interviewed met for a day or two early in the year, to discuss and decide on matters such as:

- Financial decisions, such as whether to buy a new piece of equipment or sell off piece of current equipment, plan a budget for the upcoming year, distribute, spend or hold in reserve surplus funds, and make adjustments to the use fees expected from members.
- Policy decisions like changes to member responsibilities, use policies, or the scheduling process.
- Whether to admit new members, or purchase the share of a departing member.

In addition, groups designated either committees, individual members, or paid administrators to perform ongoing tasks including:

- Organizing an annual member meeting
- Verifying that members were fulfilling responsibilities (such as holding insurance, performing work hours, and abiding by equipment use agreements)
- Scheduling use; preparing or loading equipment for pickup; inspecting returning tools
- Providing equipment training or instruction
- Coordinating or performing routine maintenance and repairs
- Billing members for use
- Bookkeeping; recording expenses and revenue; preparing tax information for accountant
- Preparing and reviewing financial plans including annual budget, capital spending plan, and cash flow projection

The Anne Arundel County Farm Equipment Rental program estimates that for 34-36 rentals per year, they spend about 8 hours per quarter on billing farmers, plus another 20 hours per year on annual administrative tasks, collecting farmer insurance certificates, and performing grant-related paperwork. The Sustainable Agriculture Tool Lending Library designates a President, Vice President and Treasurer for the above tasks. The Treasurer puts the most time in, reimbursing members for repairs paid out of pocket and monitoring the group's funds, while the President and Vice President keep maintenance records and organize annual meetings and maintenance days.

## II. SCHEDULING USE

For equipment related to short-window tasks (i.e. haying equipment, grain equipment, harvesting equipment), scheduling is often done far in advance. Group members may be prioritized geographically (by latitude or proximity) or moved in a circular pattern.

Progressive Farmers LLC in Iowa started out by rotating their corn-planting equipment from north to south in the spring, and then from south to north with soybean planting equipment. Later, deciding that that approach gave the middle farms an unfair advantage, they began rotating the equipment in a circular pattern, starting with a new farm each year.

### INTERVALE FARMER EQUIPMENT COMPANY: MANAGEMENT STRUCTURE

*Adapted from "Intervale Farmer Equipment Company Fact Sheet," Intervale Center, March, 2017.*

The LLC is managed by an elected board of managers who make decisions. The board chooses managers of the shared resources who are responsible for day to day operations of the different aspects of the LLC such as the greenhouses, equipment, and tractors. Those managers may be compensated for their efforts through reduced cost use of the resources or by monetary payment as decided by the board. The board may elect officers and designate committees in order to perform its duties. Subcommittees and their responsibilities include:

#### Equipment committee

- Oversees equipment safety and maintenance
- Determines and amends procedures of equipment use
- Tracks and coordinates repairs of damage to equipment
- Determines billing amounts for equipment users

#### Greenhouse committee and/or manager

- Determines of use of space within the greenhouse
- Monitors Greenhouse temperatures

#### Finance committee

- Creates the annual budget for member approval
- Oversees bookkeeping
- Makes sure the taxes and insurance are filed and in good standing

For a mixed pool of equipment or equipment without high seasonality, tools are generally reserved on a first come first serve basis. A reservation system may be manual (filling out paper rental forms at a central storage location), or digital, through a Google Doc, Calendar, or an online reservation system. There are a number of software platforms geared toward this purpose. MyTurn is an online lending library software program used by hundreds of tool libraries around the country. MyTurn allows users to list their full tool inventory for users to check out - allowing administrators to easily track and manage rentals. Other lending apps include Lend-Items, Mutterfly, and ShareMyToolbox.

## III. MAINTENANCE AND REPAIRS

A good maintenance and repair program is essential to a functioning tool sharing program. A group without a clear process for repairs is likely to end up with dysfunctional equipment, meaning that the group can't rely on the shared equipment to be there when they need it.

- **AT EACH USE:** The group should lay out clear expectations for what maintenance members are expected to perform with each use (such as cleaning, greasing, or topping off fluids). Make it easy to perform the needed maintenance by storing the needed tools, records sheets, and instructions with the equipment. Make sure each user has been oriented to the equipment and knows what is expected in terms of maintenance and use.
- **SCHEDULED MAINTENANCE:** The group should designate a person to perform scheduled maintenance such as winterizing equipment, changing fluids and filters, replacing or sharpening blades, discs and tines, doing regular equipment inspections and test runs. New groups can look to the manual that comes with each piece of equipment, which should include a recommended maintenance schedule.
- **MAINTENANCE RECORDS:** The group should keep records of use and maintenance performed so it can confirm it is following the maintenance schedule, and to determine if any tools are accruing high repair costs and should be replaced.
- **DESIGNATED REPAIR PERSON AND PROCESS:** To make sure the equipment is repaired in a timely manner, the person designated to perform repairs needs to have adequate time and capacity. If the group is made up of full-time farmers that have limited capacity to respond to a broken tool in a timely manner, they should plan to hire out repairs to an outside party, and budget accordingly.
- **CLEAR PROCESS FOR ASSIGNING COSTS:** In general, repairs caused by negligence or improper operation are billed to users. Practically speaking, that means the designated repair or maintenance person would diagnose the cause of the damage and determine whether it was due to normal wear and tear or improper use.

## IV. USE PROTOCOL AND TRAINING

What steps will you take to ensure safe use of equipment? Do the users have to go through a training process to gain access to the tools? How will you handle inappropriate use?

**TRAINING:** At minimum, even experienced users should be oriented to new tools the routine per-use maintenance expected. If the group plans to serve farmers inexperienced with the equipment, they

should plan for more formal operation instruction that notes potential ways to damage the machine or pose a safety risk. The National Young Farmers Coalition Roaring Fork Chapter will train all of its members on use of their shared equipment - and will video record the process. That way, in the future, they can use training videos in the place of paid staff to orient new members. Any additional use protocol, such as the state the equipment should be returned in, should be clearly expressed in writing, so that members are clear on what's expected.

### WORKING TOGETHER - KEYS TO SUCCESS

Working in groups brings both opportunities and challenges. Successful group endeavors build community and solidarity, and provide platforms for many other kinds of collaboration and sharing besides just equipment. The Sustainable Agriculture Tool Lending Library notes that they have to plan at least an hour of socializing time into their annual meetings - because farmers will inevitably take the opportunity to share stories and information with their peers.

However, people and relationships bring a complex set of variables, that can sometimes lead to tension, disagreements or damaging behavior. Many of the interpersonal problems that can come up are really issues of business planning and setting realistic expectations. Do farmers have the time to perform repairs? If not, it would be best to budget for repair services, so that the group can continue to run smoothly. If a member isn't cleaning or maintaining tools properly - are expectations clear, or is additional training required?

#### STRUCTURAL SOLUTIONS

- Acknowledge limited capacity and “the human element” in planning. Set reasonable time expectations and goals. Adjust plans if they prove unrealistic.
- Set behavioral standards and expectations and make them very clear.
- Set sanctions - such as fees or termination of membership, if behavioral requirements are not met.
- Manage interpersonal issues by creating constructive, structural solutions wherever possible, such as revising or creating new policies, or developing new systems.

#### COMMUNITY SPIRIT AND CULTURE

In addition to clear written policies and agreements, a group also needs social glue that keeps the group working constructively through challenges. The Sustainable Agriculture Tool Lending Library defies odds by running entirely on farmer volunteer labor, including for repairing tools. One of the founders, George O'Neal, says the group project works “because of social ties, friendliness and trust.” Groups can build community spirit in many aspects of their endeavor - using gatherings, activities, language, and imagery to emphasize the greater vision of collaboration, and to reinforce a sense of common purpose and values.

### MANAGING BEHAVIOR IN CONFLICT

#### CONSTRUCTIVE APPROACHES

- Maintain cooperative orientation
- Recall similarities in goals or values
- Seek to maintain mutual trust and empathy
- Use open and honest communication
- Remain open to change or compromise

#### DESTRUCTIVE APPROACHES

- Take competitive stance, “win/lose”
- Emphasize differences of participants
- Use hostile or misleading communication
- Remain inflexible on outcome



**HYGIENE:** To minimize the risk of transferring weeds, pests or soil-borne diseases from farm to farm, the Sustainable Agriculture Tool Lending Library includes a power washer in their suite of equipment, and requires members to return the tools power washed clean of debris and soil.

**SANCTIONS:** A tool lending program in Anne Arundel County, Maryland, imposes a \$25 fee if the equipment is not returned clean and greased. The National Young Farmers Coalition New Mexico Chapter has a \$5 per day late charge for not returning tools on time. Most groups have a clause in their membership agreements that failure to abide by agreed-on use protocol will result in termination of tool access privilege.

## STORAGE

Where will the equipment live? Indoor storage of tools significantly extends the life of machines, lowers the maintenance costs and increases its resale value. Choosing an optimally located storage location is also an important factor in how long users will have to travel - and therefore how likely they are to use the program. The National Young Farmers Coalition New Mexico Chapter chose a building

right by the Santa Fe Farmers Market to store their shared set of hand tools, figuring that most members were coming in once a week to attend the market. The maintenance program may influence the storage location. One Maryland conservation district chose to host tools at a local equipment rental business, which takes care of administration, maintenance and repairs. So, an ideal storage location might be one that is centrally located, has a building or cover to keep tools out of the weather, and is on-site or convenient to the person who will be performing maintenance and repairs.

## TRANSPORT

How will equipment transported to the users? Most groups include a transport trailer in their suite of equipment. Fewer groups place all transport responsibilities on users, including providing truck and trailer (in which case, the group might point users to a local UHaul or trailer rental company). The group should also orient members to good transportation practices, including properly hitching trailers and displaying a “slow moving” sign on the back of equipment.

### Tractor Use Checklist (With Every Use!)

#### BEFORE USE:

- Record hours
- Perform Equipment Check:
- Tire pressure, wear or damage
- Oil or water leakage from tractor or implement
- Engine and transmission oil, radiator and recovery tank, coolant and fuel level
- Damage to tractor body, tightness of all bolts, nuts and pins
- Implement and accessory blades and belts for wear and damage
- Parking brake, speed control lever, all safety switches and easy checker functions
- Abnormal noise or vibrations

#### AFTER USE:

- Record hours
- Clean Off any dirt, seed or debris using air blower
- Grease fittings

## REVIEW & CHECKLIST: OWNERSHIP



### STEP 8: SET UP OPERATIONS

- Where will the machinery and equipment be stored?
- Will transport equipment be provided?
- What kind of training or orientation will be provided?
- How will day-to-day operations be managed?
- By whom?
  - Billing
  - Bookkeeping
  - Preparing and reviewing financial plans
  - Organize annual member meeting
  - Uphold policies & requirements
  - Scheduling / Check in & check out
  - Training or orientation
  - Oversee / perform routine maintenance
  - Oversee/ perform repairs
- Set up a maintenance schedule and record-keeping log for your equipment.
- Make expectations for use (including maintenance, hygiene, transport, scheduling, insurance, etc.) clear to all members by providing a set of written policies or use agreement.

# CHAPTER 3

---

## ORGANIZER'S TOOLKIT

### ORGANIZER'S CHECKLIST

*Repeated from chapter summaries*

#### STEP 1: DETERMINE EQUIPMENT INTEREST

- Use a producer survey to determine if there is significant interest in equipment sharing, and identify which tools have sufficient interest from area producers by soliciting their input. Identify interest in other services, if offered.

#### STEP 2: DIGGING DEEPER & DETERMINING FEASIBILITY OF SHARING

- Is the proposed equipment compatible with the users' existing equipment and/or operating practices?
- Are the potential users able to transport the proposed equipment? Are they willing to drive to the proposed storage location to pick up?
- Do the potential users know how to safely operate the equipment, or is the needed training within the group's capacity to provide?
- Does the organizing group have the capacity to properly maintain the proposed equipment?
- Is the proposed equipment used for highly seasonal or weather sensitive activities? If so, how many users might the equipment reasonable serve?
- Are there regulatory concerns for the proposed equipment?

#### STEP 3: KEY BUDGETING DECISIONS:

- Will you budget to replace equipment or reclaim members capital, or forego building a capital recovery reserve to keep use fees as low as possible? State your general goal or strategy for replacing machinery:

---

---

- Will you pay administrative and/or maintenance personnel, or will you perform these tasks as volunteers?

**STEP 4: BUILD YOUR BUDGET:**

- Research and estimate costs: Which of the bulleted expenses above are applicable to your program? What will they cost for a program of your size?
- Explore options for partnership: what local agriculture, sustainability, or economic development organizations are there in your region? How might they be interested to support your effort?
- Estimate use: Based on grower responses, how much is each piece of equipment likely to be used?
- Determine your use fees: divide estimated costs over estimated use.

**STEP 5: CHECK FEASIBILITY:**

- Do the projected use fees seem reasonable and desirable for growers, while adequately covering anticipated costs?

**STEP 6: DETERMINE OWNERSHIP MODEL**

- Will the tools be owned individually by farmers, co-owned by the group, or owned by a third-party?

If the tools will be co-owned by farmers:

**STEP 7: FORM ENTITY AND OWNERSHIP AGREEMENTS**

- Will the group form a legal entity (Cooperative or LLC) to own them? Which business structure seems advantageous to your group?  
Use the Farm Equipment Co-ownership Agreement and the Key Considerations for
- Co-Ownership as a discussion tool for the group. Note any preferences or agreements the group has about these arrangements to bring to an attorney.
- Have an attorney draft or review an ownership agreement (contract, operating agreement, or bylaws) appropriate for your group.
- Have an accountant or accounting-savvy group member set up financial records, including capital accounts.

**STEP 8: SET UP OPERATIONS**

- Where will the machinery and equipment be stored?
- Will transport equipment be provided?
- What kind of training or orientation will be provided?
- How will day-to-day operations be managed? By whom?
  - Billing
  - Bookkeeping
  - Preparing and reviewing financial plans
  - Organize annual member meeting
  - Uphold policies & requirements
  - Scheduling / Check in & check out
  - Training or orientation
  - Oversee / perform routine maintenance
  - Oversee/ perform repairs
  - Set up a maintenance schedule and record-keeping log for your equipment.
  - Make expectations for use (including maintenance, hygiene, transport, scheduling, insurance, etc.) clear to all members by providing a set of written policies or use agreement.

## EQUIPMENT NEEDS SURVEY

**Farm profile:**

**Contact Name:**

**Farm Name:**

**Farm Zip Code** (home base or site most likely to transport equipment to):

---

**Enterprises: Select all that apply:**

- |   |  |
|---|--|
| <input type="checkbox"/> Hay                          | <input type="checkbox"/> Poultry (Meat)        |
| <input type="checkbox"/> Grains                       | <input type="checkbox"/> Layers                |
| <input type="checkbox"/> Mixed Vegetables, 1-5 acres  | <input type="checkbox"/> Turkeys               |
| <input type="checkbox"/> Mixed Vegetables, 5-20 acres | <input type="checkbox"/> Rabbits               |
| <input type="checkbox"/> Mixed Vegetables, 20+ Acres  | <input type="checkbox"/> Pigs                  |
| <input type="checkbox"/> Small Fruit                  | <input type="checkbox"/> Goats/Sheep (Meat)    |
| <input type="checkbox"/> Tree Fruit                   | <input type="checkbox"/> Sheep (Fiber)         |
| <input type="checkbox"/> Beef                         | <input type="checkbox"/> Other: Please Specify |
| <input type="checkbox"/> Dairy                        |  |

**What tractors does your farm supply?**

- |   |  |
|---|--|
| <input type="checkbox"/> 4WD, 75 HP and above | <input type="checkbox"/> 2WD, Under 35HP     |
| <input type="checkbox"/> 4WD, 35-75 HP        | <input type="checkbox"/> Walk-Behind Tractor |
| <input type="checkbox"/> 4WD, Under 35 HP     | <input type="checkbox"/> No tractor          |
| <input type="checkbox"/> 2WD, 35-75 HP        |  |

**This survey is to determine if there is sufficient interest in forming a shared-access equipment pool in our area. Multiple farmers would share access to needed equipment, at a reasonable or low-cost basis.**

**Would you be interested in participating in the program?**

- Yes - very interested
- Yes - interested, but have concerns
- No - not interested

**Additional Comments:**

**Are you interested in any of the following additional services**

- Shared infrastructure (i.e. greenhouses, shop space)
- Custom operation of equipment
- Equipment training or farmer education
- Bulk purchase of supplies
- Labor sharing (i.e. harvesting short-window crops, tractor work, etc)

Additional Comments

**Do you currently rent equipment for your operation? Please tell us the equipment and source.**

**Equipment List**

Which of the following equipment are you interested to gain access to?

**Tractors & Vehicles**

- 80 HP 4WD Tractor
- 35HP Compact Utility Tractor
- Walk-behind BCS Tractor
- Pick-up Truck

**Hay Equipment**

- Hay Rake
- Baler
- Tedder
- Mower

**Livestock Equipment**

- Mobile Poultry Processing Unit
- Poultry Processing - Home
- Poultry Crates
- Egg Washer
- Livestock Trailer
- Hay Bale Chopper
- Handling Pens/Head Gates
- Livestock Scale

**Grain Equipment**

- Combine
- Thresher

**Vegetable Equipment**

- Chisel Plow
- Flail Mower
- Flame Weeder (Tractor-Mounted)
- Fertilizer/Lime Spreader

- Manure Spreader
- Moldboard Plow
- Plastic Mulch Layer
- Plastic Mulch Lifter
- Post Hole Auger
- Rototiller
- Rotary Mower
- Sickle Bar Mower
- Subsoiler
- Water Wheel Transplanter
- Specialized Planter (Specify Below)
- Boom Sprayer
- Toolbar
- Cultivation Implements (Specify Below)
- Spaders
- Undercutter
- BCS Tractor Implements
- Potato Cutter
- Garlic Breaker
- Seed Drill

### **No-Till Equipment**

- Roller-crimper
- No-Till Drill Seeder

### **Seeders & Hand Tools**

- Broadfork
- Earthway Seeder
- Flame Weeder (handheld)
- Jang Seeder
- Johnny's Pinpoint Seeder
- Paper Pot Transplanter
- Pipe Bender
- Tilter

### **Storage & Sales**

- Freezers
- Cryovac Sealer
- Market Tent

### **Irrigation**

- PTO Irrigation Pump
- Water cannon
- Tanker Truck
- Other irrigation equipment (specify below)

### **Land Management & Construction**

- Bulldozer
- Bobcat
- Brush Hog
- Chain Pole Saw
- Compost Turner
- Compost Screener
- Compost Windrower
- Excavator
- Forestry Mower
- Forestry Mulcher
- Fork Lift
- Generator
- Keyline Plow
- Rock Picker
- Dump Truck
- Box Grader
- Saw Mill
- Surveying Equipment
- Wood Splitter
- Wood Chipper



**Harvest & Processing**

- |   |  |
|---|--|
| <input type="checkbox"/> Potato Digger    | <input type="checkbox"/> Specialized Harvesting/Processing Equipment (Specify Below) |
| <input type="checkbox"/> Berry Harvester  | <input type="checkbox"/> Bagging Equipment   |
| <input type="checkbox"/> Carrot Harvester | <input type="checkbox"/> Harvest Bulk Bins   |
| <input type="checkbox"/> Greens Harvester | <input type="checkbox"/> Maple Syrup Evaporator                                      |
| <input type="checkbox"/> Greens Spinner   | <input type="checkbox"/> Honey Extractor   |
| <input type="checkbox"/> Hops Harvester   |  |
| <input type="checkbox"/> Root Washer      |  |

**Other Equipment: Specify Below****Please provide additional information.**

For the equipment selected above, please indicate (1) Necessary specifications for use on your farm, and (2) Potential frequency of use (3) Necessary time window, if applicable.

Would you require training services for any of the selected equipment?  
Is custom operation needed for any of the above equipment?

Are you willing and able to transport equipment from the planned storage location at \_\_\_\_\_?

Which of the following scenarios seems desirable to you? Check all that interest you:

- Farmers own the tools independently and rent/lend them to each other.
- Farmers collectively own an equipment business, and rent the tools from the business.
- Equipment is owned by a third-party (non-profit or government agency) and made available to farmers rent.
- Don't know - would like more information first

Would you like to be kept informed as this project progresses?

- Yes                       No

Thank you for taking the time to fill out this survey!

## EQUIPMENT USE ARRANGEMENT

*This document is a sample framework for tool sharing that addresses use only - not ownership. It can be used or referenced by farmers renting or lending tools to each other, or for groups setting up a third-party rental program.*

Agreement Between: \_\_\_\_\_ [Owner] and \_\_\_\_\_ [User]

For Use of: Equipment Name: \_\_\_\_\_ / Blanket Use

Start Date: \_\_\_\_\_ Return Date: \_\_\_\_\_

**User Information:**

Contact Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Farm Name: \_\_\_\_\_ Email: \_\_\_\_\_

Farm Location (Address): \_\_\_\_\_

Drivers License of User: State \_\_\_\_\_ Number \_\_\_\_\_

Name and affiliation of any additional users (must be insured under your business policy)

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

**Conditions of Use:** User agrees to return tools by the end of the designated use period. User will not lend or allow the equipment to be operated by anyone other than the user and those listed above on this form. User agrees that (1) that equipment will only be transported by the user, (2) that user is familiar with the equipment operation and competent to operate said equipment in a safe and appropriate manner, and (3) that the user acknowledges the inherent dangers and perils associated with the operation of equipment and assumes all risk and liability associated with such transportation, operation, use and storage. User must examine the equipment prior to use and note any defects. User agrees to follow per-use maintenance tasks and safety checks as specified below, and to remove seed, dirt and debris prior to returning equipment. Per-use maintenance tasks and safety checks include:

**[for blanket use: attach protocol for all equipment]**

**Fees:** User agrees to pay the designated use fees for equipment, within 30 days of receiving a bill for use. The use fee will be: \_\_\_\_\_ [or attach fee schedule for blanket use]

**Transport:** User agrees to transportation on highways with an appropriate vehicle with hitch, to secure safety chains shall be secured at all times when equipment is in use, and display a “slow moving” sign on the rear of the equipment. User assumes all liability when towing equipment.

**Insurance:** User agrees to carry a minimum of \$1 million liability insurance policy listing Owner as additional insured, and indemnify the Owner against any claim for bodily injury or property damage arising out of use, possession or transportation of equipment.

**Damage to Equipment:** Damage to equipment must be reported immediately to [the owner / designated maintenance person]. Damage incurred through improper operation will be billed to the user. The cause of damage (normal wear and tear or improper operation) may be determined by (1) mutual agreement between both user and owner, or (2) by assessment by a reputable/certified mechanic/welder.

**Signature of User** \_\_\_\_\_

Insurance Company: \_\_\_\_\_

Policy Number: \_\_\_\_\_

Confirmation of additionally insured Initial Here: \_\_\_\_\_

# RESOURCES

---

**JOINT MACHINERY OWNERSHIP:** A PDF from Iowa State with further explanation and helpful worksheets for budgeting and dividing costs among co-owners.

*William Edwards*

Iowa State University Extension Ag Decision Maker Publication File A3-34  
Available at [www.extension.iastate.edu/agdm/crops/html/a3-34.html](http://www.extension.iastate.edu/agdm/crops/html/a3-34.html)

**MACHINERY SHARING MANUAL FOR FRUIT AND VEGETABLE GROWERS:** A vegetable- and fruit-specific guide with case studies. Includes helpful worksheet for developing operating agreement provisions.

*Georgianne Artz, Linda Naeve, William Edwards*

Iowa State University Extension

Available at [https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1032&context=extension\\_pubs](https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1032&context=extension_pubs)

## **FARM MACHINERY JOINT VENTURE WORKSHEET**

*William Edwards*

Iowa State University Extension Ag Decision Maker Publication File A3-38 Available at [www.extension.iastate.edu/agdm/crops/html/a3-38.html](http://www.extension.iastate.edu/agdm/crops/html/a3-38.html) 47

## **MACHINERY AND LABOR SHARING FARM MACHINERY & LABOR SHARING MANUAL**

*Georgianne Artz, William Edwards, and Frayne Olson MidWest Plan Service, 2009*

Available for purchase at [www-mwps.sws.iastate.edu/catalog/farm-business/general/](http://www-mwps.sws.iastate.edu/catalog/farm-business/general/)

## **COORDINATING FARM LABOR ACROSS FARMS: A TOOLBOX FOR DIVERSIFIED FARMERS AND FARMWORKERS**

*Courtney Berner, Erin Hannum, and Kelly Maynard*

Farm Commons

Available at [http://www.uwcc.wisc.edu/pdf/Farm\\_Labor\\_Assessment\\_Toolbox.pdf](http://www.uwcc.wisc.edu/pdf/Farm_Labor_Assessment_Toolbox.pdf)

## **CHOOSING A BUSINESS ENTITY: FLOWCHART**

*Rachel Armstrong, Erin Hannum, Laura Fisher, and Lisa Schlessinger*

Farm Commons

Available at <https://farmcommons.org/resources/choosing-business-entity-flowchart>

## **ESTIMATING FARM MACHINERY COSTS**

Iowa State Extension Ag Decision Maker

Available at <https://www.extension.iastate.edu/AgDM/crops/html/a3-29.html>

**FARM EQUIPMENT NEEDS AND COOPERATIVE SOLUTIONS FOR SOUTHERN NEW ENGLAND**

*Becca Buckler*

Rhode Island Association of Conservation Districts

Available at <http://www.riacd.org/EquipmentBankStudyReport.pdf>

**INTERVALE FARMERS EQUIPMENT COMPANT FACT SHEET**

*Intervale Center*

Available at [https://nesfp.org/sites/default/files/resources/ifec\\_fact\\_sheet\\_to\\_share.pdf](https://nesfp.org/sites/default/files/resources/ifec_fact_sheet_to_share.pdf)

**PRACTICING LAW IN THE SHARING ECONOMY**

*Janelle Orsi*

Sustainable Economies Law Center

Available for purchase at <http://www.theselc.org/book>

**AN ANALYSIS OF MACHINERY COOPERATIVES FOR DAIRY FARMS IN THE UPPER MIDWEST**

Catherine Ford and Robert Cropp

University of Wisconsin Center for Cooperatives

Available at [http://www.uwcc.wisc.edu/info/supply/staff\\_09\\_02.html](http://www.uwcc.wisc.edu/info/supply/staff_09_02.html)

**COOPERATIVE FARMING: FRAMEWORKS FOR FARMING TOGETHER**

*Faith Gilbert*

The Greenhorns

Available at [thegreenhorns.net/guidebooks/cooperatiefarming/](http://thegreenhorns.net/guidebooks/cooperatiefarming/)

# NOTES

---

## **INTRODUCTION:**

<sup>1</sup>Steven Koenig, “Update on U.S. Farm Equipment Trends,” Farm Credit Association, 2016.

<sup>2</sup> “Machinery Co-operatives: a Case Study in Sweden,” A. de Toro; P.-A. Hansson  
Department of Biometry and Engineering, Swedish University of Agricultural Sciences;  
October 13, 2003.

<sup>3</sup>Phil Kenkel, Interview, March 2018

<sup>4</sup> “Timeliness Costs in Grain and Forage Production Systems,” Carina Gunnarsson;  
Swedish University of Agricultural Sciences, 2008.

<sup>5</sup> “Machinery Co-operatives: a Case Study in Sweden,” A. de Toro; P.-A. Hansson  
Department of Biometry and Engineering, Swedish University of Agricultural Sciences;  
October 13, 2003.

<sup>6</sup>“Structural Considerations for Machinery Cooperatives,” Phil Kenkel and Garrett Long,  
NCERA-194 Annual Meeting, November 6-7, 2007, Minneapolis, MN.

## **CHAPTER 1: PROJECT PROFILES : TYPE OF EQUIPMENT SHARING**

<sup>7</sup>Janelle Orsi, *Practicing Law in the Sharing Economy* (Chicago: American Bar Association, 2012) 102:105.

<sup>8</sup>Rhode Island Association of Conservation Districts, “Farm Equipment Needs and  
Cooperative Solutions for Southern New England,” pg. 12