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Developing and Educating Managers and New Decision-makers



*Are you planning to be the next generation farm operator? Whether you represent the transition of generations, or that of employee to owner or as a new entrant to the business, a fresh look at management will be necessary. Michigan State University Extension offers help to beginning farmers with this transition through the Beginning Farmers DEMaND series offering articles, workshops and additional resources.*

## Farm Management Experience Resource Guide

**Jonathan LaPorte,  
Michigan State University  
Extension**

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*Management experience* is a phrase that you will hear often in farm business, especially as a new decision-maker. It is an important measurement used by many agricultural services to define if you are a beginning or established farmer. As a beginning farmer, you can gain access to benefits and assistance offered to help develop your business. These offerings can include premium discounts, additional risk protection options, or financial support. However, demonstrating that you possess experience is often a common obstacle to obtaining these benefits.

In many U.S. Department of Agriculture (USDA) programs, at least one to three years of experience is needed to access beginning farmer services. If you are starting a new farm or transitioning from a laborer role on an existing farm, meeting criteria can be difficult. Even established farm managers find defining and establishing management experience to be a struggle.

This publication is intended to assist you in better understanding and demonstrating management experience. We will explore what sets management experience apart from knowledge gained as a farm laborer. We will also review how you can gain

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experience regardless of whether you currently work on a farm or are starting a new business.

### What is Management Experience?

Management experience is about making decisions that directly affect a farm business' success or failure. It is sometimes referred to as decision-making experience, because of its focus on choices made by a farm manager.

An important distinction is to remember that the farm manager, not the employee, develops a farm plan and must live with its outcome. Developing a farm's operating plan is a responsibility that you agree to take on as a manager. It requires not only outlining tasks to perform but also aligning those tasks with goals and desired achievements. In many cases, an operating plan encompasses individual plans for every major aspect of your farm. Creating these plans involves understanding components that lie behind many farm decisions. These components focus around three areas: business, financial, and production.

The *business component* focuses on identifying the goals and direction of your farm. This includes understanding resources that are available or limitations to resources that you'll need to address. You also need to recognize roles and responsibilities necessary for daily operation. This includes knowing the people involved in completing them. Equally important is identifying marketing or revenue opportunities that your business has available.

The *financial component* focuses on monetary impacts or needs driven by business decisions. Each choice you make will affect your financial ability. The revenue you receive is affected by outcomes of production and your marketing plan. The amount of money spent on labor, rent of buildings or land, and other farm inputs will determine how much revenue you get to keep. The revenue you get to keep is often referred to as *cash*. How much cash you have remaining affects your ability to purchase equipment, buildings, or other improvements. If cash is limited, you may need to take on financial assistance (debt) to make purchases. Taking on debt affects your farm's value and growth toward reaching its business goals.

The *production component* focuses on maximizing yield or output of a commodity being grown for sale. Decisions are based on financial availability and driven by business goals. Available cash and off-farm financial assistance are often limiting factors to purchasing needed farm inputs. To meet business goals, farm managers must decide how to achieve production output while operating within financial constraints. In some cases, this can mean readjusting production goals to achieve business success.

Understanding components of farm decisions is crucial to demonstrating you possess an ability to run a successful farm business. A major challenge rests in discovering opportunities to gain this valuable knowledge.

### Gaining Experience on the Farm

One recognizable opportunity is growing up on or currently working for a farm. Individuals with this background are able to gain valuable experience from a pre-existing operation. The benefit is in learning without having to pay for assets or manage day-to-day operations immediately. Individuals who have pre-existing background in a farm are often considered to have an advantage over individuals who are starting up a brand-new business. However, concerns can be raised if that experience is centered around production or labor-specific activities. Individuals with these types of experience often lack involvement in business or financial decisions that influenced those activities. A lack of involvement can lead to a disadvantage of repeating decisions without understanding why farm managers made them.

To overcome this disadvantage, you need to map out a process to become a part of the management team. Discuss ways for you to be involved in decision-making and take on responsibilities outside of simply production or labor-related duties. Remember that your new involvement is intended to be a learning role guided by someone already serving as a decision-maker. You need to understand how all components contribute to farm decisions.

You can become more involved in several areas to gain both knowledge and experience.

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### **Make farm records the foundation of every farm decision.**

You need to know what information is being tracked and why it is important to the management team. Farm records encompass both production and financial information. Keeping those records often means tracking what is stored, used, or sold. Routinely reviewing inventories against records can highlight potential shortfalls or surpluses that need to be addressed. The same concept is true of cash on hand and monthly reviews of bank statements against farm financial records. If a shortfall is expected and cash is needed to pay bills, it's vital to know if enough money exists in reserve to cover them.

Gaining knowledge about farm records requires getting involved and taking on management level responsibilities. Responsibilities can include entering deposits, writing checks for invoices, ordering seed, making changes to feed inventories, or tracking grain or livestock sales. If you are tracking inventories, be sure to reconcile farm records with actual numbers from inventory. To know what you have to work with, you need to know what you have available. The same thought applies to reconciling cash balances in records with monthly bank statements. Ensuring records reconcile to actual numbers improves accuracy and use of information later on.

### **Take part in developing annual financial statements.**

In particular, develop any areas that directly connect to responsibilities you've had with farm records. If you tracked inventory or reconciled bank statements, help organize the inventory, cash, and liability (debt) information. Then compare final documents to what was prepared last year and note any changes. Remember to ask questions about what led to the changes you see. They could be driven by differences in market prices, yield, increased debt, depreciation, or other factors you'll want to know more about. You can begin to understand the impacts decisions have on the value and growth of the business by working with these documents.

Additional Financial Statement Resources:

- *Cash Flow Projection for Operating Loan Determination*, Kansas State University ([www.agmanager.info/farm-management-guides-0/cash-flow-projection-operating-loan-determination](http://www.agmanager.info/farm-management-guides-0/cash-flow-projection-operating-loan-determination))

- *Farm Balance Sheet Template*, Michigan State University (MSU) ([www.canr.msu.edu/resources/farm-balance-sheet-template](http://www.canr.msu.edu/resources/farm-balance-sheet-template))
- *Income Statement: A Financial Management Tool*, Kansas State University ([www.agmanager.info/farm-management-guides-0/income-statement-financial-management-tool](http://www.agmanager.info/farm-management-guides-0/income-statement-financial-management-tool))

### **Routinely review farm goals and progress toward meeting them.**

Take part in reviewing the farm's annual budget and any expectations that went into its development. The budget document can outline goals for production, marketing, and even input purchases that lead toward expected profitability. Work with the current management team to update the budget routinely during the year (quarterly or mid-year). Account for significant changes that have occurred in season and may impact expected profitability.

### **Attend all meetings organized by the management team.**

Every farm meeting can offer opportunities to gain knowledge and guidance toward goals or future decision-making. Daily briefings with employees can provide insight into how tasks or objectives are reviewed. Tax meetings can provide insight to income tax requirements and the ways the farm manages their tax liability. Retailer meetings offer an opportunity to be part of production discussions and expectations management has from input suppliers. Lender meetings offer the chance to understand loan requirements and the ways current debt levels are being managed. Farm financial analysis reviews help create awareness of a management team's direct impact toward achieving farm goals without influences from weather or markets.

## **Gaining Experience Through Mentorship**

Gaining on-farm experience can also be obtained through mentorship programs. These programs can be formally organized or informally with a neighbor. Mentors can even be from outside your own farm community in your region or your state, or they can even be involved in a different type of agriculture. The idea is to build a relationship with a trusted individual with whom you can interact and share

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different perspectives, and who is interested in helping you succeed.

Even if you currently are part of a farm business, seeking out mentors or participating in a mentorship program is highly encouraged. Managers from other farms can provide insight into the decision-making process and achievement of farm goals. They can offer advice on how to navigate challenges, manage risk, and identify potential opportunities.

For information on available Farm Mentorship Programs in Michigan, visit the MIFarmLink website ([www.mifarmlink.org/mentorship-program](http://www.mifarmlink.org/mentorship-program)).

### **Gaining Experience by Leasing Farm Property**

Another recognizable opportunity is renting property, either tillable land or building space, to establish a farm. For beginning farmers, this is a common method of establishing a farm business. This method is also challenging to obtain. There is often a lot of competition to acquire farm property when it becomes available. Competition can lead to higher rental rates or landowners requesting rent be paid prior to production activities. To make rental payments and still purchase operating inputs, availability of cash becomes a concern.

Most lending institutions require at least one year of management experience to obtain an operating loan. While considerations for education and military service can help meet this requirement, it is not uncommon for first-year farms to be self-funded. Self-funding can provide a positive or negative first impression of your management abilities. It can also negatively impact both family and farm businesses simultaneously, especially when combined with poor decision-making. Understanding what you need to operate and how much is reasonably affordable are factors for you to consider as you lease property.

#### **Identify what capital assets you will need to operate the farm.**

If land is being pursued, define what equipment is required to prepare, plant, manage, and harvest any crops. If buildings are needed for livestock, decide what equipment is required to maintain animal health. Maintaining animal health includes necessities, such as feed, water, and removal of

manure. The key is to determine if available capital assets you have are a good fit to rented property or if there are additional needs.

#### **Identify and confirm that the property meets your farm's intended production needs.**

Not all property is created equal. Yield potential is determined by soil type and health. Ensure intended crops are suitable to available ground and soil conditions. A soil test can provide up-to-date information and reduce costs involved with fertilizer management. Buildings designed for equipment storage may be unsuitable to store forages or use for raising livestock. Make sure facilities will allow you to raise livestock in a healthy, safe, and productive environment. Just because property is available does not mean it fits your farm business.

For more information on soil testing and recommended soil nutrient levels, visit the MSU Soil and Plant Nutrient Laboratory website ([www.canr.msu.edu/spnl/](http://www.canr.msu.edu/spnl/)).

#### **Determine how much is too much rent for you to pay.**

Develop a farm budget outlining expected cost of production minus any rent payments. The budget should include a reasonable amount of profit to cover debt payments. The maximum amount of rent to pay should be a number that causes revenue to equal cost of production and debt. *This is known as cash flow breakeven.*

#### **Ensure you understand landowner expectations and determine if they are reasonable.**

Landowners may have specific requirements to rent their property. These may include tree trimming on field edges, soil health maintenance, and more. You should understand any costs and time involved to meet requirements, especially if they affect farm activities. Those costs should be discussed in the negotiation process.

Additional Resources:

- *Farmland Rent Considerations factsheet*, MSU ([www.canr.msu.edu/resources/farmland-rent-considerations](http://www.canr.msu.edu/resources/farmland-rent-considerations))

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- *Rental Agreements for Farm Buildings and Livestock Facilities*, North Central Farm Management Extension Committee ([ag.purdue.edu/commercialag/home/resource/2013/02/rental-agreements-for-farm-buildings-and-livestock-facilities/](http://ag.purdue.edu/commercialag/home/resource/2013/02/rental-agreements-for-farm-buildings-and-livestock-facilities/))

### **Take care when considering assistance from other farms.**

Many established farms may offer to help new farmers get started. Their eagerness to help is often good intentioned and can be of great benefit. However, sometimes their involvement can also diminish opportunities to make decisions and gain experience. If an established farm is helping to negotiate a rental agreement, their reputation can bring with it expectations that may be difficult for you to meet. Ensure that negotiations are between you and property owners. If landowners have expectations, discuss what they involve and whether they can be reasonably met. Discussions should always focus on your farm, its goals, and ways you intend to achieve them.

### **Be cautious when renting from family farms.**

Often, family farms will offer to sublet (rent out) rental or owned property to help next generation farmers get started. They may also offer to help purchase inputs, providing an opportunity to take advantage of discount prices. The challenge this type of assistance presents is being able to distinguish between two farm businesses, especially if operating plans between businesses are similar.

Make extra efforts to ensure that both farms are identified and treated separately. This includes each manager developing their own goals for their respective farms. The rental process between businesses should be handled identically to those held with individual property owners. That process should include drafting and signing a rental agreement between all parties. If a family farm will assist with inputs purchases or marketing, a means of identifying and tracking how much belongs to each business needs to be created. MSU recommends having an agreed-upon tracking method drawn up into an agreement and signed by all parties.

Remember, a first impression of your management ability is important if you plan to pursue financial assistance. That impression starts with your choices

about properties and any decisions to lease them. Identifying what your operation needs before entering into a lease agreement is crucial to a successful start. To help you identify operating needs, consider how that knowledge can be gained through education.

## **Gaining Experience Through Education**

Knowledge is key to a farm manager's success. It is obtained from firsthand experience or learned through instruction. Education can take on many forms. Some forms include secondary education (colleges) or cooperative extension programs. Other forms may be mentorships or apprenticeships. Even opportunities to work on the farm or lease farm property are examples of firsthand on-the-job education. Regardless of how it is obtained, education is an on-going process of studying what you don't know and challenging what you think you know. Most importantly, education begins by identifying what you need to know.

As a new farm manager, you need to know the business, financial, and production components behind farm decisions. Begin your education by breaking down decisions into different areas, such as revenue and costs. Next, focus on different types of choices you need to make within each area. Identify steps and actions that need to be taken as well as any resources they will require. This process will help outline where to start your studies.

## **Farm Revenue**

Revenue focuses on market prices and production. However, before crops or livestock are raised or sales contracts agreed upon, a farm must choose what market it will pursue.

### **Decide which markets available to farmers fit your business.**

Markets can be specific to certain crops and livestock or offer premiums for production practices (organic or non-GMO). As a farm manager, you must decide which market(s) fit(s) your business and will be pursued through your financial and production activities. Part of that decision is recognizing what markets are available, which type of commodity or

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products you desire, and whether prices are competitive to other market options.

Another part of choosing a market is understanding whether your farm can produce what a market wants. Just because a market is available doesn't mean your farm can participate in it. You may need to make changes that require capital purchases, changes in production practices, or even additional labor. If costs of those changes are too much, a new market may be less profitable than one you're already in. Understanding production requirements is a good place to start when considering entry into a new market. Entering a market that is new to you may also come with challenges that can be overcome by developing relationships with key individuals in those markets.

#### Additional Production Resources:

- Animals and Livestock production website, University of Minnesota Extension ([extension.umn.edu/animals-and-livestock](http://extension.umn.edu/animals-and-livestock))
- Crop Production website for field crops and forages, University of Minnesota Extension ([extension.umn.edu/crop-production](http://extension.umn.edu/crop-production))
- Forage Connection website, MSU ([forage.msu.edu/extension/](http://forage.msu.edu/extension/))
- *Organic Crop Production Guide*, Penn State University Extension ([extension.psu.edu/penn-state-organic-crop-production-guide](http://extension.psu.edu/penn-state-organic-crop-production-guide))
- *Production and Marketing of Specialty Vegetables*, Vol. 1, Penn State University Extension ([extension.psu.edu/production-and-marketing-of-specialty-vegetables-vol-1](http://extension.psu.edu/production-and-marketing-of-specialty-vegetables-vol-1))
- *Tree Fruit Production Guide*, Penn State University Extension ([extension.psu.edu/tree-fruit-production-guide](http://extension.psu.edu/tree-fruit-production-guide))

#### Review market reports to understand current or projected market conditions.

Knowledge of market conditions helps identify what is needed to be profitable or whether other markets could be considered. Several reports are available from the USDA that outline conditions and expectations with a given market. For most commodities, the World Agricultural Supply and Demand Estimates (WASDE) report is one place to start ([www.usda.gov/oce/commodity/wasde](http://www.usda.gov/oce/commodity/wasde)). Another option is the USDA's Agricultural Marketing Service, which offers information on markets not covered by USDA's WASDE report

([www.ams.usda.gov/](http://www.ams.usda.gov/)). Examples include specialty crops, food markets, organic, and even retail sale markets.

#### Develop a marketing plan for how production will be sold.

Marketing plans outline projected output as well as how and when it will be sold, and at what predicted prices. It provides a guide to reach farm revenues by setting goals for sales activities. It also considers financial and production activities needed to make sales happen. This includes understanding market conditions, expectations, and available pricing tools to use if conditions change.

#### Additional Marketing Resources:

- Beef Economics and Marketing website, MSU ([www.canr.msu.edu/tag/beef-economics-and-marketing](http://www.canr.msu.edu/tag/beef-economics-and-marketing))
- *Fruit and Vegetable Marketing for Small-Scale and Part-Time Growers*, Penn State University Extension ([extension.psu.edu/fruit-and-vegetable-marketing-for-small-scale-and-part-time-growers](http://extension.psu.edu/fruit-and-vegetable-marketing-for-small-scale-and-part-time-growers))
- *Introduction to Grain Marketing* (E-3416), MSU Extension ([www.canr.msu.edu/resources/introduction-to-grain-marketing](http://www.canr.msu.edu/resources/introduction-to-grain-marketing))
- *Marketing's Four P's: First Steps for New Entrepreneurs*, Purdue University ([www.extension.purdue.edu/extmedia/EC/EC-730.pdf](http://www.extension.purdue.edu/extmedia/EC/EC-730.pdf))
- Michigan MarketMaker, MSU Extension ([www.canr.msu.edu/michigan\\_marketmaker/index](http://www.canr.msu.edu/michigan_marketmaker/index))

#### Create a budget that outlines expected cost of production and farm profits.

Profitability is not about what you make, but what you keep. Every farm activity generates a cost that subtracts from revenues. Determine what activities are needed and their costs. Identify how much of your revenue remains after covering these costs to identify farm profitability. If profits are acceptable, then that market may be worth pursuing for your farm. If costs of producing for that market are higher than expected, a review of costs or consideration of another market may be needed.

Most farm revenue is used to cover production costs. To keep more revenue, managers focus on reducing costs without losing production output. To achieve

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that goal, a strong knowledge of factors driving farm costs is needed.

### Farm Costs

The business, financial, and production components of decision-making become important to managing farm costs. You must determine not only what needs to be done, but also how tasks and their costs affect your farm goals. The types of costs can be standardized by operating needs or inputs, such as chemicals, feed, and fertilizer.

### Animal Health

Animal health costs focus on maintaining overall health and well-being. The health and well-being of your livestock starts with developing a health management plan that establishes how livestock health is maintained. The plan is your guide to preventing, monitoring, diagnosing, and treating ailments or injuries that occur. A plan should also describe nutritional needs to ensure proper rate of gain, milk production, or carcass leanness. How you address animal health will directly affect the costs and profits for your farm.

Veterinarians play a crucial role in helping to maintain animal health. They can make routine visits to provide guidance to your plan, administer treatments, and even monitor livestock health. Their visits do not come free and could become a significant cost, especially if an emergency situation requires veterinary services outside of planned visits.

As a farm manager, you need to develop a health management plan that ensures animal well-being. A successful plan can help ensure animal health goals without sacrificing production goals. Disease prevention is especially crucial to keeping health costs low. Anytime there is sickness or death of an animal, analyze what went wrong that led to the problem and understand what you can do to prevent it in the future. Seek help to improve prevention.

Additional Resources:

- Beef Health, MSU ([www.canr.msu.edu/beef/production/animal-health-and-wellbeing](http://www.canr.msu.edu/beef/production/animal-health-and-wellbeing))
- Dairy Health, MSU ([www.canr.msu.edu/tag/dairy-health](http://www.canr.msu.edu/tag/dairy-health))

- Poultry Health, University of Minnesota Extension ([extension.umn.edu/poultry/poultry-health](http://extension.umn.edu/poultry/poultry-health))
- Sheep & Goats Health, MSU ([www.canr.msu.edu/sheep\\_goats/health/](http://www.canr.msu.edu/sheep_goats/health/))
- Swine Health, MSU ([www.canr.msu.edu/tag/swine-health](http://www.canr.msu.edu/tag/swine-health))

### Chemical Costs & Pest Management

Chemical purchases are part of an integrated pest management (IPM) plan or they promote plant health. Pests may be weeds, insects, or disease that reduce production output and prevent achieving farm goals. Identifying pests, their potential damage, and methods of control are part of developing an IPM plan. Methods of control can also require certification be obtained as some substances require a special pesticide applicators license.

An IPM plan considers all methods of controlling pests and can include biological, cultural, mechanical, physical, and chemical options. Chemicals are often costly and can be harmful if used incorrectly. A significant portion of developing an IPM plan is determining when chemicals or nonchemical alternatives should be used. In some cases, pest pressure may not be at economic thresholds to warrant taking an action. In this situation, managing pests are more costly than anticipated production losses.

Some insects can be beneficial and even necessary for production, such as bees for pollinating fruits or vegetables. Using pesticides, including additives such as adjuvants or surfactants, can increase mortality to many beneficial insects. This amplifies an IPM plan's importance to identifying when or if chemicals should be used.

Plant growth regulators are another type of chemical commonly used on fruit and vegetable farms. They can assist in growth and development of plant roots and shoots. Growth regulators can also encourage plant sprouting, flowering, and ripening of harvestable production. Determining when these chemicals are needed and in what amounts is another important farm decision.

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Additional Chemical and Pest Management Resources:

- *Blueberry Pollinator Stewardship Guide*, MSU ([www.canr.msu.edu/resources/blueberry-pollinator-stewardship-guide](http://www.canr.msu.edu/resources/blueberry-pollinator-stewardship-guide))
- Integrated Pest Management website, MSU ([www.canr.msu.edu/ipm/agriculture/](http://www.canr.msu.edu/ipm/agriculture/))
- *Michigan Fruit Management Guide* (E-0154), MSU Extension ([www.canr.msu.edu/resources/fruit\\_management\\_guide\\_e0154](http://www.canr.msu.edu/resources/fruit_management_guide_e0154))
- *MSU and OSU Insect Management Guides for Field Crops* ([www.canr.msu.edu/field\\_crops/insect-guides](http://www.canr.msu.edu/field_crops/insect-guides))
- *Midwest Vegetable Production Guide for Commercial Growers*, Purdue University ([www.mwveguide.org](http://www.mwveguide.org))
- Pesticide application training guides available at the National Pesticide Safety Education Center ([npsecstore.com/pages/michigan](http://npsecstore.com/pages/michigan))
- Pesticide Applicator Training, MSU ([www.canr.msu.edu/courses/pesticide-applicator-training](http://www.canr.msu.edu/courses/pesticide-applicator-training))
- *Vegetable Pollinator Stewardship Guide*, MSU ([www.canr.msu.edu/resources/vegetable-pollinator-stewardship-guide](http://www.canr.msu.edu/resources/vegetable-pollinator-stewardship-guide))
- *Weed Guide*, MSU ([www.canr.msu.edu/weeds/](http://www.canr.msu.edu/weeds/))

### Custom Hire

Performing every farm task effectively and efficiently can be expensive. There is often a choice that must be made to determine what tasks are best performed by you or someone else. Custom hired labor is often used to offset limitations of time, labor, equipment, or facilities.

To decide if hiring a custom operator is best, start by identifying what needs to be done. Then consider tradeoffs of time, equipment, and financing resources required for those tasks. Tradeoffs are a common theme when deciding to hire a custom operator. There may be advantages to performing a task yourself. However, advantages must be weighed against resources that can be used elsewhere.

A common example is whether to own a grain or forage combine. If harvest is hired out to a custom operator, you are dependent on their availability or your place in line on a clientele list. Timely harvest brings with it concerns of quality and suitability for feed or sale. Having your own combine allows you to

harvest when it is convenient and best suited for your farm's needs. However, your farm may not be able to afford a combine suitable to harvest when you need one. You may also find that investing capital for harvest equipment is better suited to other needs.

Additional Custom Hire Resources:

- Farm Machinery Management (*Economic Cost Estimation Spreadsheet*), University of Minnesota ([wazarus.cfans.umn.edu/william-f-lazarus-farm-machinery-management](http://wazarus.cfans.umn.edu/william-f-lazarus-farm-machinery-management))
- *2021 Indiana Farm Custom Rates*, Purdue University ([ag.purdue.edu/commercialag/home/resource/2021/04/custom-rates/](http://ag.purdue.edu/commercialag/home/resource/2021/04/custom-rates/))
- *2021 Iowa Farm Custom Rate Survey*, Iowa State University Extension and Outreach ([www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf](http://www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf))
- *Wisconsin Custom Rate Guide 2020*, Wisconsin Department of Agriculture, Trade, and Consumer Protection ([www.nass.usda.gov/Statistics\\_by\\_State/Wisconsin/Publications/WI-CRate20.pdf](http://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/WI-CRate20.pdf))

### Feed & Nutrition Costs

Feed costs are based on meeting nutritional needs of livestock. If you raise livestock for meat production, higher quantities of grain are often needed. Milk production from dairy livestock focuses on higher amounts of forages with grain still included. Depending on your farm location, availability of feed ingredients may vary. To make feed costs decisions, you must first identify your livestock goals while reaching their nutritional requirements. Then determine quantities of feed types needed to achieve them and their availability. Determining feeds needed and their amounts requires knowledge about nutrition.

Nutrition isn't just about feeding a balanced diet but also about obtaining desired results. The right feed ration can provide a diet that ensures animal health but also achieves desired milk output or rate of gain. Knowledge of feed and nutritional response are critical components to successfully reaching production goals.

For example, if you feed beef cattle an improper ration, their rate of gain may be poor, or meat grading lower than desired. Poor rate of gain means

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longer time on your farm and more feed costs to reach a desired weight. Lower meat grade can create lower income, which can translate to lower profits for your farm. Additional loss of profit can occur if lower meat grades are combined with added feed costs. Knowledge of nutritional needs and ways they can be met presents options for creating proper feed rations. This information can help ensure feed rations meet nutritional needs of your animals at lowest possible costs to keep more revenue on your farm.

Additional Feed & Nutrition Resources:

- Beef Nutrition, MSU ([www.canr.msu.edu/beef/](http://www.canr.msu.edu/beef/))
- Dairy Nutrition, MSU ([www.canr.msu.edu/tag/dairy-nutrition](http://www.canr.msu.edu/tag/dairy-nutrition))
- Sheep and Goat Nutrition, MSU ([www.canr.msu.edu/sheep\\_goats/nutrition/](http://www.canr.msu.edu/sheep_goats/nutrition/))
- Small-Scale Poultry, University of Minnesota Extension ([extension.umn.edu/poultry/small-scale-poultry](http://extension.umn.edu/poultry/small-scale-poultry))
- Swine Nutrition, MSU ([www.canr.msu.edu/tag/swine-nutrition](http://www.canr.msu.edu/tag/swine-nutrition))

### Fertilizer Costs & Nutrient Management

Fertilizer costs are created as crop nutritional needs are met. Each production year, every crop farm establishes a yield goal it intends to achieve. Reaching that yield depends on how crops will receive needed nutrients. Sources of nutrients can include commercial fertilizers, livestock manure, or nutrients found within soil. Some sources can be expensive, while others can offer cost savings.

A common struggle with nutrient management is that not every field or orchard has an identical starting point. Different soil types or conditions can affect how many nutrients are available for plants to use. A soil test is needed to determine what nutrients are available. Soil availability is important when selecting other nutrients. Commercial fertilizer products offer different amounts of nutrients. Manure can be different from farm to farm or even between species of livestock. Application methods of fertilizer can also affect availability of nutrients.

To determine which sources to use, you should develop a nutrient plan that addresses the 4R's of nutrient management (right source, right rate, right time, and right place). The 4R's provide a context to achieve increased production and profitability. They

also help to enhance environmental stewardships and improve your farm's long-term sustainability. A nutrient plan based on the 4R's helps to identify what options are available to achieving yield goals at the lowest possible costs.

Additional Fertilizer and Nutrient Management Resources:

- *Introduction to Fertilizer Planning* (E-3412), MSU Extension ([www.canr.msu.edu/resources/e-3412-introduction-to-fertilizer-planning](http://www.canr.msu.edu/resources/e-3412-introduction-to-fertilizer-planning))
- *Nutrient Application Guidelines for Field, Vegetable and Fruit Crops in Wisconsin* (A2809), University of Wisconsin Extension ([walworth.extension.wisc.edu/files/2018/11/Nutrient-Application-Guidelines-for-Field-Vegetable-Fruit-Crops-in-WI-A2809.pdf](http://walworth.extension.wisc.edu/files/2018/11/Nutrient-Application-Guidelines-for-Field-Vegetable-Fruit-Crops-in-WI-A2809.pdf))
- *Nutrient Recommendations for Field Crops in Michigan* (E-2904), MSU Extension ([www.canr.msu.edu/fertrec/uploads/E-2904-MSU-Nutrient-recomdns-field-crops.pdf](http://www.canr.msu.edu/fertrec/uploads/E-2904-MSU-Nutrient-recomdns-field-crops.pdf))
- *Nutrient Recommendations for Vegetable Crops in Michigan* (E-2934), MSU Extension ([www.canr.msu.edu/fertrec/uploads/E-2934-MSU-Nutrient-recomdns-veg-crops.pdf](http://www.canr.msu.edu/fertrec/uploads/E-2934-MSU-Nutrient-recomdns-veg-crops.pdf))
- Nutrient Smart Plus Online Course, MSU (<https://www.canr.msu.edu/courses/nutrient-smart-plus-online-course>)
- *Tri-State Fertilizer Recommendations for Corn, Soybean, Wheat, and Alfalfa*, Ohio State, MSU, and Purdue ([extensionpubs.osu.edu/tri-state-fertilizer-recommendations-for-corn-soybean-wheat-and-alfalfa-pdf/](http://extensionpubs.osu.edu/tri-state-fertilizer-recommendations-for-corn-soybean-wheat-and-alfalfa-pdf/))

### Food Safety Costs

For many farmers, producing safe, quality food is one of their primary business objectives. Ensuring safe food is not a given as production of food involves inherent food safety risks. However, these risks can be successfully minimized by good management practices and investment of both time and money. Just as your operating plan is a roadmap for your business, a food safety plan maps the steps you take to ensure a safe end product. Although templates are available to get you started, you'll need to tailor the template language to reflect your individual farm and food safety practices. Writing the plan initially requires time and you'll also want to budget time to do an annual review of that plan. A review helps to make sure a plan matches what your business is currently doing as it grows and changes.

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Additionally, integrating a plan into employee training and daily implementation of practices will also require time and money.

Many buyers of fresh produce require their suppliers to pass audits before they will buy produce from them. Annual audits are an expense of doing business in fresh produce that can cost thousands of dollars. Check with potential buyers about their food safety requirements before creating contracts to better understand what costs you need to account for.

Additional Food Safety Resources:

- Agrifood Safety, MSU Extension ([www.canr.msu.edu/agrifood\\_safety/](http://www.canr.msu.edu/agrifood_safety/))
- Michigan On-Farm Produce Safety ([www.miofps.org/](http://www.miofps.org/))

### Freight & Trucking Costs

Freight and trucking can add transportation and marketing costs to your farm. Production may need to be relocated at various points of a season. You may need to process or haul some harvested crops to storage until they can be sold. You may need to have purchased livestock delivered to your farm in order for you to raise them. You must have milk hauled to a facility to be processed. How transportation is performed can carry different costs.

Examples of costs are fuel, maintenance repairs, and time. Time costs can be length of delivery and its impacts on production quality. Overextended time in transportation can cause decreases in quality of some crops and livestock health. Losses in quality often reduce sale volume or sale prices. Identifying options for moving your production should include acknowledging opportunities to minimize cost and maximize selling quality.

Additional Freight and Trucking Resources:

- *Estimating Grain Transportation Costs (A3-41)*, Iowa State University Extension and Outreach ([www.extension.iastate.edu/agdm/crops/html/a3-41.html](http://www.extension.iastate.edu/agdm/crops/html/a3-41.html))
- *National Beef Quality Assurance Guide for Cattle Transporters* ([www.bqa.org/Media/BQA/Docs/master\\_cattle\\_transporter\\_guide-digital.pdf](http://www.bqa.org/Media/BQA/Docs/master_cattle_transporter_guide-digital.pdf))

### Fuel Costs

Fuel costs mostly focus on equipment. Maintenance of equipment as well as how efficiently it is used often play a large role in the total amount of fuel cost. Equipment that is not well maintained can run inefficiently and require more fuel than normal. Overuse of production practices or improper techniques (tillage, spraying, storage) can lead to waste and higher costs.

The ability to store fuel can also be a factor. A higher availability of storage can lead to volume discounts or ensuring regulatory requirements for on-farm storing are met. Storage capacity can also mean better access to refueling and keeping equipment actively working.

Fuel is also used in manufacturing of many commercial products, including fertilizer, which can affect market prices. Understanding how its use is affected by production practices, storage availability, and market conditions greatly influences whether fuel costs will be higher or lower for your farm.

### Insurance Costs

Insurance costs should focus on managing potential risks. Farm policies protect against unexpected damages to property and buildings. They can also cover legal costs where injuries to people are involved. Production insurance policies for livestock and crops are also available, offering protection on production losses, low market prices, and higher feed costs. They help to retain revenue needed to meet financial needs and achieve business goals.

You should identify risk concerns for your farm. Policies that cover those specific risks are what you should consider purchasing. How much coverage is needed depends on policy costs compared to potential impacts of risk on farm profits. Note: A minimum coverage may be required if you obtain operating credit from a lending institution.

Additional Insurance Resources:

- *Insurance Options for Vegetable Growers (E-3413)*, MSU Extension ([www.canr.msu.edu/resources/e-3413-insurance-options-for-vegetable-growers](http://www.canr.msu.edu/resources/e-3413-insurance-options-for-vegetable-growers))

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- *Introduction to Crop Insurance for Field Crops* (E-3415), MSU Extension ([www.canr.msu.edu/resources/bulletin-e-3415-introduction-to-crop-insurance-for-field-crops](http://www.canr.msu.edu/resources/bulletin-e-3415-introduction-to-crop-insurance-for-field-crops))
- *Livestock Risk Insurance Plans for Cattle Producers* (B1-50), Iowa State University Extension and Outreach ([www.extension.iastate.edu/agdm/livestock/pdf/b1-50.pdf](http://www.extension.iastate.edu/agdm/livestock/pdf/b1-50.pdf))
- *New Risk Management Tool for Sheep Producers* (B1-52), Iowa State University Extension and Outreach ([www.extension.iastate.edu/agdm/livestock/html/b1-52.html](http://www.extension.iastate.edu/agdm/livestock/html/b1-52.html))
- *Risk Management Options for Dairy Producers* (B1-53), Iowa State University Extension and Outreach ([www.extension.iastate.edu/agdm/livestock/html/b1-53.html](http://www.extension.iastate.edu/agdm/livestock/html/b1-53.html))

### Irrigation Costs & Water Management

Water is an important ingredient in raising crops and livestock. Water sources can be nearby streams or wells dug as part of developing infrastructure or rented buildings.

Water is often considered a scarce resource, especially for some crop farms. Irrigation is a means of transporting water from a nearby source and applying it to your crop. The costs to build and use irrigation depend on your type of system, its source of energy, efficiency at delivering water, and acres to be covered. Increases in production can be expected for grains or is a necessity to ensure quality in certain fruits or vegetables. In addition, some contracted productions including seed crops, potatoes, fruits, and vegetables may require an irrigation system as an insurance. Some farm operations find irrigation too costly to purchase or maintain. These operations depend on planting crops that fit within seasonal weather patterns and suited to dry conditions.

Water management is also important to food safety, which has requirements on water quality and sources. Water tests would be expected for vegetable farms that make over a certain dollar amount per year that sell directly to food hubs, retailers, restaurants, or consumers.

As a farm manager, you should identify sources of water, management requirements, and costs of

access. If costs are too great, revisit your production plans and consider alternatives to achieve farm goals.

### Additional Irrigation and Water Management Resources:

- Biosystems & Agricultural Engineering: Irrigation website, MSU ([www.egr.msu.edu/bae/water/irrigation/](http://www.egr.msu.edu/bae/water/irrigation/))
- Irrigation website, MSU Extension ([www.canr.msu.edu/irrigation/](http://www.canr.msu.edu/irrigation/))
- MSU Enviroweather website, MSU ([enviroweather.msu.edu/](http://enviroweather.msu.edu/))

### Labor Costs

Labor is an investment in productivity. Labor costs are dependent on need and influenced by recruitment and retention. The first decision related to farm labor is whether or not it is truly needed. Having additional help on a farm can make many tasks easier. More importantly, they can free you up to spend time managing by doing everyday jobs that otherwise might consume your time. However, individuals performing work on your farm must be compensated for their time and effort. That compensation must also be competitive with alternative jobs in your area. The cost of compensation brings with it a consideration of tradeoffs.

Tradeoffs are a major theme for hiring farm labor, similar to custom workers. A key difference is custom workers are hired for a limited time. They often perform only a specific task and then leave. Employees are hired to handle multiple tasks on your farm for an extended period of time. That period of time can be part-time with limited hours or full-time at regular work hours.

For farms that require additional labor, you should identify tasks and skill levels needed to complete them. Recruitment begins with determining if suitable candidates with those skills are available. Plan to invest time orienting, training, and instilling your values into employees no matter what skills they already have. Taking time to develop your employees and for regular two-way communication with them will increase your return on investment. Retention of employees often requires establishing a favorable work environment. This may require extra costs to facilities, equipment, tools, personal

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protective equipment, and even work uniforms. You may benefit from additional training to improve your interaction and management abilities with employees.

Additional Resources:

- *Agricultural Employer Checklist*, MSU ([www.canr.msu.edu/resources/agricultural-employer-checklist](http://www.canr.msu.edu/resources/agricultural-employer-checklist))
- *Labor Laws and Michigan Agriculture* (E-2966), MSU Extension ([www.canr.msu.edu/resources/labor-laws-and-michigan-agriculture](http://www.canr.msu.edu/resources/labor-laws-and-michigan-agriculture))

### Real Estate Taxes

Real estate taxes are a part of property ownership, not just farm management. If you are purchasing farmland, you will be required to pay annual real estate taxes. These are assessed based on a value established by the state and a rate determined by your property's classification. Property classification determines what rate you'll be charged, not necessarily what you are using it for. Land used for farming but classified as residential will carry different tax charges. Values are re-assessed at different periods, including at transfer of ownership. Understanding what those tax costs will be and how they impact farm profitability is an important part of farm planning. For information, review the MSU bulletin *Introduction to Zoning and Taxation* (E-3422) ([www.canr.msu.edu/resources/bulletin-e-3422-introduction-to-zoning-and-taxation](http://www.canr.msu.edu/resources/bulletin-e-3422-introduction-to-zoning-and-taxation)).

### Repair & Maintenance Costs

Repairs and maintenance are connected to capital asset purchases. Capital assets, including equipment and buildings, need routine maintenance or occasional repair to remain in good working order. Major repairs may have more to do with equipment misuse or unexpected damages. When major repairs occur, they can carry increased costs and possibly require replacement of a capital asset. They also can negatively impact production if essential equipment is being repaired during critical growing periods.

Purchasing capital assets is also expensive. Planning is needed to ensure affordability of purchases. Large, unexpected purchases limit revenue and set back farm goals. Developing a routine maintenance plan will keep costs at reasonable levels. These plans ensure equipment is

available when needed on the farm and preserve their intended useful life.

Additional Repair & Maintenance Resources:

- *Estimating Farm Machinery Costs*, Iowa State University Extension and Outreach ([www.extension.iastate.edu/agdm/crops/html/a3-29.html](http://www.extension.iastate.edu/agdm/crops/html/a3-29.html))
- *Managing Machinery and Equipment*, Penn State University Extension ([extension.psu.edu/managing-machinery-and-equipment](http://extension.psu.edu/managing-machinery-and-equipment))

### Seed Costs

Seed costs should focus on agronomic traits or feed value. To achieve optimum yields or highest feed quality possible, seed selection must match available growing conditions. Growing conditions involve your farm's individual characteristics and disease pressure within an area. Not all seed options are meant to be grown in every type of soil. Some seed varieties are better suited to sandy or clay soil types, but not always both. Low performance or quality can occur if seed is planted in the wrong soil type.

Disease pressure is another important factor. Select seed that has high resistance to common disease concerns. Seed with poor disease resistance can also require additional costs of fungicides or lower yields.

Maturity ranges are different from one seed option to the next. Match seed varieties to averages of growing degree days (GDDs) in your area. Then, consider planting a variety of maturity options within GDD ranges to help widen your harvest window. This provides opportunities to optimize yields and ensure quality is maintained at harvest.

For vegetables that are commonly direct seeded into the ground, days to maturity are reported as number of days from seed placement into the soil until harvest. For vegetables that are commonly transplanted, days to maturity are reported as the number of days from when transplant is placed into the soil until harvest. Actual seeding time for transplants takes place between 14 and 84 days prior to transplanting, depending on the vegetable.

Seed for silage should consider similar factors as grain but focus primarily on feed value. Feed value

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includes protein, fiber, and digestibility factors. Forage seed selection should be based on traits that include yield and agronomic characteristics that fit your production system. Cover crops grown as feed should also be based on nutritional value.

Additional Seed Resources:

- Michigan Cover Crop Recipes, MSU and Midwest Cover Crops Council ([mccc.msu.edu/statesprovince/Michigan/](http://mccc.msu.edu/statesprovince/Michigan/))
- *Recommended Hay and Pasture Forages for Michigan* (E-3309), MSU Extension ([forage.msu.edu/wp-content/uploads/2019/11/E3309-RecommendedHayPastureForagesForMichigan-2019.pdf](http://forage.msu.edu/wp-content/uploads/2019/11/E3309-RecommendedHayPastureForagesForMichigan-2019.pdf))
- Seed Laboratory for germination and pathogens testing, Iowa State University ([www.seedlab.iastate.edu/welcome-isu-seed-laboratory](http://www.seedlab.iastate.edu/welcome-isu-seed-laboratory))
- *Seed Selection Based on Disease Resistance Ratings*, Penn State University Extension ([extension.psu.edu/seed-selection-based-on-disease-resistance-ratings](http://extension.psu.edu/seed-selection-based-on-disease-resistance-ratings))

### Storage Costs

Storage costs are connected to marketing, fuel, utilities, and product quality. Storing products for later sale or use requires understanding first how to maintain them. For example, fruits or vegetables begin to deteriorate almost immediately after harvest. Maintaining quality until intended sales are reached can require a temperature controlled cold storage facility to prevent spoilage. Forage harvests target periods of optimum dry matter and moisture content. Depending on storage facilities being used (bunker versus silo), higher moisture can lead to spoilage or loss in feed value. Grain is dried to specific moisture levels for long-term storage in bins. Depending on harvest condition, grain moisture can be lowered with a dryer or an air fan. Identifying how to prepare farm products for storage and available methods to preparing them greatly affects your storage costs.

Additional Storage Resources:

- *Hay Storage Options: How Do They Stack Up?* Iowa State University Extension and Outreach ([www.extension.iastate.edu/agdm/crops/html/a2-37.html](http://www.extension.iastate.edu/agdm/crops/html/a2-37.html))

- *Managing Dry Grain in Storage*, Purdue University ([www.extension.purdue.edu/extmedia/AED/AED-20.html](http://www.extension.purdue.edu/extmedia/AED/AED-20.html))
- *Storage Guidelines for Fruits and Vegetables*, Cornell University Cooperative Extension ([chemung.cce.cornell.edu/resources/storage-guidelines-for-fruits-vegetables](http://chemung.cce.cornell.edu/resources/storage-guidelines-for-fruits-vegetables))

### Utility Costs

Utility costs are just as important as fuel costs. If equipment does not use fuel, it is usually powered by electricity. Similar considerations of routine maintenance and repair with fuel also apply to utilities. Higher costs may occur depending on facilities or equipment on your farm. These can include a grain dryer system, cold storage for fruits or vegetables, milk coolers, or field irrigation systems. Identify equipment or facilities that generate utility costs and how usage may fluctuate. For example, irrigation and dryer systems can run on fuel, electricity, or a combination of both. Irrigation usage will vary depending on rainfall during a season. Dryer system use will depend on grain harvest moisture. In both examples, management and efficient use can help reduce costs.

## Training Resources & Learning Opportunities

Once you know which areas of farm decisions you need to study, a next step is determining methods of learning. Opportunities for in-person or online learning are available, though not always easily known. Below are several additional resources for farm management education:

- Beginning Farmer website, MSU Extension ([www.canr.msu.edu/beginning-farmer/index](http://www.canr.msu.edu/beginning-farmer/index))
- CultivateGrowth, GreenStone Farm Credit Services ([www.greenstonefcs.com/resources/cultivategrowth](http://www.greenstonefcs.com/resources/cultivategrowth))
- Dairy Grazing Apprenticeship Program (<https://www.dga-national.org/>)
- *Farm Business Record Keeping for the Global Majority*, MSU ([www.canr.msu.edu/farm-business-record-keeping-for-the-global-majority/index](http://www.canr.msu.edu/farm-business-record-keeping-for-the-global-majority/index))
- Hay Production School, MSU (<https://forage.msu.edu/events/>)

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- Interactive Map of Beginning Farmer Resources, MSU ([www.canr.msu.edu/sof/map.html](http://www.canr.msu.edu/sof/map.html))
- La Cosecha, MSU Migrant Student Services (<https://mss.msu.edu/la-cosecha/index.html>)
- MICENT: Michigan Corn Education, Networking and Training Program, Michigan Corn (<https://micorn.org/cmpm/micent>)
- MSU Institute of Agricultural Technology ([www.canr.msu.edu/iat/index](http://www.canr.msu.edu/iat/index))
- Organic Farmer Training Program, MSU ([www.canr.msu.edu/organic\\_farmer\\_training\\_program/index](http://www.canr.msu.edu/organic_farmer_training_program/index))

### Resources for Business Management

An area of struggle for new farm managers is often understanding how to connect business, financial, and production components together. Understanding business and financial strategies helps to make those connections clearer and more useful to decision-making. Several resources for business and financial management follow:

- *From Bursting With Ideas to Developing a Plan* (E-3408), MSU Extension ([www.canr.msu.edu/resources/beginning-farmers-demand-series-bulletin-e-3408-from-bursting-with-ideas-to-develop-a-plan](http://www.canr.msu.edu/resources/beginning-farmers-demand-series-bulletin-e-3408-from-bursting-with-ideas-to-develop-a-plan))
- *How to Motivate Your Lender to Say, 'Yes'* (E-3407), MSU Extension ([www.canr.msu.edu/resources/How-to-motivate-your-lender-to-say-yes-understanding-the-lending-process](http://www.canr.msu.edu/resources/How-to-motivate-your-lender-to-say-yes-understanding-the-lending-process))
- *Introduction to Cost of Production and Its Uses* (E-3411), MSU Extension ([www.canr.msu.edu/resources/bulletin-e-3411-introduction-to-cost-of-production-and-its-uses](http://www.canr.msu.edu/resources/bulletin-e-3411-introduction-to-cost-of-production-and-its-uses))
- *Introduction to Zoning and Taxation* (E-3422), MSU Extension ([www.canr.msu.edu/resources/bulletin-e-3422-introduction-to-zoning-and-taxation](http://www.canr.msu.edu/resources/bulletin-e-3422-introduction-to-zoning-and-taxation))
- *Sharpening the Saw: Keeping Yourself Business Sharp* (E-3409), MSU Extension ([www.canr.msu.edu/resources/bulletin-e-3409-sharpening-the-saw-keeping-yourself-business-sharp](http://www.canr.msu.edu/resources/bulletin-e-3409-sharpening-the-saw-keeping-yourself-business-sharp))
- *Transitioning From Labor Force to Decision-Maker* (E-3406), MSU Extension ([www.canr.msu.edu/resources/bulletin-e-3406-transitioning-from-labor-force-to-decision-maker](http://www.canr.msu.edu/resources/bulletin-e-3406-transitioning-from-labor-force-to-decision-maker))

- *Understanding Enterprise Budgets and Economic Profit* (E-3410), MSU Extension ([www.canr.msu.edu/resources/beginning-farmers-demand-series-bulletin-e-3410-understanding-enterprise-budgets-and-economic-profit](http://www.canr.msu.edu/resources/beginning-farmers-demand-series-bulletin-e-3410-understanding-enterprise-budgets-and-economic-profit))

For more publications from the MSU Beginning Farmers DEMaND Series, visit: [www.canr.msu.edu/farm\\_management/DEMaND-Series/index](http://www.canr.msu.edu/farm_management/DEMaND-Series/index).

Gaining experience is a continual part of being a farm manager. It does not stop at the end of a textbook, a video, or this bulletin. As innovations in technology, nutrition, agronomy, and financial management continue to emerge, so does the requirement to understand them. Your ability to learn will always be crucial to achieving your farm goals. The same is true of being able to demonstrate experiences and knowledge that you have gained.

### Demonstrating Management Experience

The need to demonstrate management experience is generally associated with obtaining financial credit. Lenders want to be sure that investing in a farm is worthwhile before making a loan. To make that investment, they need to know your skillset as a farm manager. Presenting these skills is a common obstacle for beginning farmers to overcome. The reason for that is largely due to a lack of physical proof to support what you've learned. However, you can provide evidence of your newfound knowledge and experience.

Throughout this publication, we have mentioned various plans for farm tasks. These individual plans are part of an overall farm operating plan. We have also discussed the importance of farm records and financial statements. These documents can represent your knowledge of business, financial, and production aspects of farm decisions. What is required to make them effective is an investment of your time and dedication to create and organize them.

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### Farm Records

Farm records illustrate your skillset as a farm manager. To show your skillset accurately, time and dedication to organizing and updating records is essential. Records that are unorganized and have missing or incomplete details indicate poor management skills. While records that are organized, up to date, and reconcile to inventories or bank statements indicate good management skills.

The best way to know what your records say about your skillset is to review them. Focus on a major area of your farm's production practices. Consider a question you are likely to be asked when reviewing your farm records. Determine if records provide enough detail to showcase your decision-making process.

For example, a lender may want to know production, prices, and revenues for crops you grow. Your farm raises watermelons, tomatoes, and sweet corn. Well-organized records can tell how much was sold, prices received, and when sales occurred for each crop. You can then calculate average prices (business), total revenue (financial), and total products raised (production). Poorly kept records are not only unable to provide an answer but also create a negative impression of your management abilities. This is true of both financial and production records.

### Financial Records

Financial records indicate if your farm is profitable. A major goal of your farm is to make money and build your business value. Records that show a lack of profits or an inability to pay debt can be concerns for financial lenders. This is especially true if records don't match up with historical debt repayment or bank balances.

You want to track inflows and outflows of cash. Reconciling to monthly bank and loan statements ensures accuracy. Accuracy is important when creating yearly financial statements for you and your lender. It also indicates where money came from and where it went to, which is important for measuring your progress toward farm goals.

At some point during the year, you will also want to find your farm's cost of production. Knowing what it costs to produce crops or livestock allows you to estimate profit levels. Expected profit can influence a

number of decisions you'll make throughout the year. How reliable those expectations are will depend on accuracy of your cost of production. Details within your financial records can provide that level of accuracy. Instead of writing a short description of an expense in your records, include descriptive information for later use.

For example, you operate a dairy farm and purchase feed items. You purchase milk replacement for *heifer calves* and mineral vitamins for *milking cows*. You want to track cost of production for both cows and calves separately. But financial records have one line item that says *feed* with a total cost. No information exists to calculate separate costs of production. However, a review of your feed invoice reveals a breakdown of each item purchased and its individual cost. You include those breakdowns and individual costs in your records with a notation of which production area they belong with. A note for milk replacement simply says *heifer calves*, while mineral vitamins have a note for *milking cows*. Now your records have information you can use to calculate separate costs of production on feed purchases.

Using a good recording-keeping system can help track details and capture costs of production. Computer software programs, such as PcMars or QuickBooks, are one option. Handwritten records are also an option. Regardless of which system you prefer, it can be successful if it is well kept and organized.

Additional Financial Record Resources:

- *Farm Records Book for Management* (E-1144), MSU Extension ([shop.msu.edu/collections/all/products/bulletin-e1144](http://shop.msu.edu/collections/all/products/bulletin-e1144))
- *Fearless Farm Finances*, Midwest Organic & Sustainable Education Service ([mosesorganic.org/fearless-farm-finances/](http://mosesorganic.org/fearless-farm-finances/))
- *Introduction to Cost of Production and Its Uses* (E-3411), MSU Extension, ([www.canr.msu.edu/resources/bulletin-e-3411-introduction-to-cost-of-production-and-its-uses](http://www.canr.msu.edu/resources/bulletin-e-3411-introduction-to-cost-of-production-and-its-uses))
- TelFarm program (Computer-based recordkeeping and support options through MSU) ([www.canr.msu.edu/telfarm/](http://www.canr.msu.edu/telfarm/))

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### Annual Farm Financial Analysis

Internal Revenue Service (IRS) Income Tax records are a common means of providing a glimpse into your farm's profitability. However, tax records demonstrate profitability relative only to income tax liability. A more accurate, clearer view of profitability includes adjustments for production year-related activities. An annual farm financial analysis can help provide this clearer view. It is a process of combining tax and production records to demonstrate your impact as a farm manager. It offers information on farm profitability, debt repayment capacity, and growth of your farm business. It also provides information that can help you make well-informed decisions toward reaching farm goals.

Additional Financial Analysis Resource:

- *Working Toward a More Accurate Farm Financial Analysis*, MSU Extension ([www.canr.msu.edu/news/working-toward-a-more-accurate-farm-financial-analysis](http://www.canr.msu.edu/news/working-toward-a-more-accurate-farm-financial-analysis))

For assistance in completing a farm financial review, contact a member of the MSU Extension Farm Business Team ([www.canr.msu.edu/farm\\_management/experts](http://www.canr.msu.edu/farm_management/experts)).

### Production Records

Production records are your historical proof of past success in raising crops or livestock. These records are not just an account of the amount you raised (bushels, tons, pounds, cwt). They should also include additional details, such as field maps, feed mix rations, or nutrient plans. Tracking information about how you raised your crops or livestock is just as important as total yields or product output.

Past production levels are often an indicator of what to expect in future years. High yield levels exhibit a successful farm operation. Low yields raise concerns about long-term sustainability. If your records show low production levels, the first step is to identify what caused them. This is where additional details in your records are helpful. Some causes are outside of your control and can be offset by risk management tools, such as insurance. Other causes reflect back to decisions you've made as a manager, both good and bad.

Keep in mind that acknowledging bad decisions should not be an immediate cause for alarm. Gaining

experience involves learning from mistakes. How you adjust your management because of what you've learned from that experience should influence future decisions. Those future decisions become part of your operating plan.

For example, after several years of low yields, you soil test your fields and discover poor soil health conditions. Soil tests reveal that pH is out of balance and some nutrients are deficient. You develop a plan to apply lime (a soil amendment) to rebalance soil pH levels. You also create a nutrient management plan that includes additional nutrients to offset deficiency levels. You have maps that indicate which field(s) and amounts of lime that will be applied. You have purchases of lime captured in your financial records and hire a local retailer to apply lime. The local retailer provides you with application maps to confirm lime was applied. These pieces of information verify your efforts to improve production and reach farm goals. Now, as part of your production records, they also serve as great references for fine-tuning future decisions.

Additional Production Record Resources:

- *Beef Cattle Record Keeping Basics*, Alabama A&M and Auburn Universities ([www.aces.edu/wp-content/uploads/2019/02/ANR-2488.pdf](http://www.aces.edu/wp-content/uploads/2019/02/ANR-2488.pdf))
- *Crop Production Recordkeeping System* (PPP-18), Purdue University Cooperative Extension ([www.extension.purdue.edu/extmedia/PPP/PPP-18.pdf](http://www.extension.purdue.edu/extmedia/PPP/PPP-18.pdf))
- *Milk Production Records and Feeding Records for Management Control*, Penn State University Extension ([extension.psu.edu/milk-production-records-and-feeding-records-for-management-control](http://extension.psu.edu/milk-production-records-and-feeding-records-for-management-control))
- *Recordkeeping Systems for Crop Production* (E-2342), MSU Extension ([www.canr.msu.edu/resources/recordkeeping\\_system\\_for\\_crop\\_production\\_e2342](http://www.canr.msu.edu/resources/recordkeeping_system_for_crop_production_e2342))
- *Urban Farm Record Keeping*, Penn State University Extension ([extension.psu.edu/urban-farm-record-keeping](http://extension.psu.edu/urban-farm-record-keeping))

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### Business Plans

#### Written For You

A common misconception is that business plans are developed primarily to obtain financial assistance. While it is true that lenders want to see your plan, don't write it for them. All businesses benefit from better understanding what it is you intend to do and how their assistance might be best suited. However, the main purpose of a business plan is to help guide your farm. Each plan starts by defining your farm and detailing what it intends to do. This requires knowing its location, infrastructure, history, and ownership structure.

#### Available Market Opportunities

You must find out if market opportunities are available. Before you do any other step within a business plan, you must establish what market you'll operate within. Your farm cannot be profitable raising something customers are unwilling to buy. Many farm managers focus on what they *want* to raise and not what markets are willing to purchase.

Discovering what market opportunities exist, where they are, and how to gain entry can take time. It can also require re-evaluating your business setup or farm goals.

#### Operating Plans

Production (operating) plans are a yearly extension of your business plan. The initial operating section of your business plan overviews how you will manage raising your chosen product. This overview includes how you will produce it, manage it, and define the risks involved. Yearly operating plans are a more detailed blueprint of activities that will be undertaken each year to see that plan fulfilled.

#### Financial Plans

Financial plans outline whether a business plan is viable and should be pursued. This includes current financial statements of a balance sheet, income statement, and cash flow project. These documents help to determine if enough cash is available to operate as well as assets owned, debts owed, and expected profitability. A financial plan should also include historical performance (if available) and capital needs of your farm.

#### Review & Update Regularly

Business plans are meant to be reviewed and updated regularly. Writing a business plan is not

intended to be a one-time event. You will want to reference back to it as a guide over time and determine if it is still relevant. This review can be performed annually or every few years. The need for updates depends largely on production and financial situations your farm is facing. If you are experiencing changes to goals, marketing opportunities, or even financial viability, it may be time to review your business plan.

Note: Financial viability of your farm should be an annual review regardless of when the business plan is reviewed. Understanding the financial health of your business is a first indication of whether you are meeting farm goals.

Additional Business Plan Resources:

- AgPlan app for business planning, Center for Farm Financial Management ([agplan.umn.edu/](http://agplan.umn.edu/))
- USDA-supported resources ([newfarmers.usda.gov/technical-assistance-planning-your-business](http://newfarmers.usda.gov/technical-assistance-planning-your-business))

### Narration

To this point, we have focused on time and dedication to creating visible evidence of your management experience. An equally important investment of time and dedication is in your review and understanding of these documents.

People want to work with you and get to know your passion for farming. They want to know what success will look like from you directly. Your knowledge and understanding allows you to describe how your plans and experience will make your farm successful. This makes your ability to communicate your knowledge, understanding, and passion the most crucial part of demonstrating management experience.

### Myths About Farm

#### Management Experience

Several myths about management experience need to be demystified.

#### Myth #1: Experience from on-farm opportunities guarantees success.

This statement is false. Experience gained while working on a farm is helpful, but it does not

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automatically lead to successful farm management. Take care that on-farm experience isn't solely focused on production activities. Getting involved in management responsibilities is important. Even if you understand production needs, that doesn't necessarily translate into managing a farm successfully. Production knowledge won't establish market entry, manage costs, or ensure growth of your farm business all on its own. Your knowledge of business and financial aspects of farm decisions is still required. It doesn't matter how much on-farm experience you have if your skillset as a farm manager is incomplete.

### **Myth #2: One year of management experience is good, regardless of how my farm did.**

This statement is false with a stipulation. Some farm businesses require a longer start-up period before their first sales are realized. In some cases, a start-up period can be longer than 12 months or multiple years. Common examples include beef sales, milk production, and fruit trees. As long as good management practices are being made, your farm can still be considered doing well for its stage of development.

Remember every farm business has a goal to be successful, therefore positive, successful experience is preferred. However, as we discussed earlier, poor years should not be an immediate cause for alarm. What matters is what led to a poor outcome and how you will manage future years. That may mean increased emphasis on mitigating. It may even mean acknowledging poor decisions that you made. The key is using whatever happened as a learning experience to lead your farm to future success. An effective farm manager recognizes when changes need to be made and actively works to see those changes carried out.

### **Myth #3: I have to manage a large farm business to be successful.**

This statement is false. Successfully managing a farm is not dependent on it being a large operation. More attention is often placed toward large farms due to their size and scope. However, smaller farms are more abundant in Michigan with many of them successful and thriving. The key is identifying a market that you can operate in efficiently and profitably to meet your farm goals. Shifting operational activities to reach levels of efficiency or

meet market needs is not always about growing larger. Better market opportunities may allow staying at a current size and scope or encourage downsizing parts of your operation to gain entry.

Remember that your ultimate goal is to be profitable and grow your farm's overall value. That doesn't mean a farm has to grow in size to achieve those goals. In many cases, a smaller farm may find adapting to new marketing opportunities easier than a larger farm, especially if a significant amount of capital has been invested into specialized equipment no longer needed with a new market.

### **Myth #4: Transitioning into managing a family farm is easier than starting a new business.**

This statement is neither true nor false. Taking on management of an existing family farm does offer advantages in several areas. You have immediate access to equipment, land, livestock, and inventories, because your business is already up and running. However, transition or succession of a farm can be difficult to navigate and require more planning. You have not only your interests and goals to work around, but also those of your family as well. Maintaining family harmony can be a challenge, especially if other heirs are involved. Transferring assets may also require long-term planning and flexibility in case unexpected changes occur. There may be tax implications for both you and family members to consider as well. These types of challenges are not commonly involved in starting a new business. However, as outlined in this publication, starting a new business has its own set of challenges that you need to consider. Personal preference and business goals often determine which option is best for you.

### **Myth #5: To prove I have management experience, I need an IRS Schedule F tax form.**

This statement is false. The Schedule F form provides a glimpse of your farm's profitability in your IRS tax records. But this form only outlines profit or loss if you own or have ownership interest in a farm business that is selling agricultural products. As we have outlined in this publication, there are many opportunities to gain experience without having ownership interest in a farm or before your farm is fully operating.

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The origin of this myth likely comes from loan application requirements. Annual IRS tax returns are a common application item listed by lending institutions. These documents outline financial information related to farm or nonfarm activities that may affect your ability to repay a loan. While they can serve as a record of experience, they are often limited in what information they share about your actual management abilities. Lenders will use these documents for that purpose, but additional information is often needed to verify your experience level.

Providing proof of your experience relies on information you maintain in your farm records. Certificates of completion of farm-related education or mentorship programs are commonly used as evidence of your experience. On-farm experience can be captured by documenting hours, types, and level of responsibilities. You should also document how your involvement directly affected farm success.

As an example of how your records can be used to verify experience, review the eligibility criteria and requirements of the types of loans offered in USDA's Farm Loan Programs ([www.fsa.usda.gov/programs-and-services/farm-loan-programs/index](http://www.fsa.usda.gov/programs-and-services/farm-loan-programs/index)). These sections illustrate how different combinations of your records can be used to meet their loan program's eligibility requirements. While IRS tax records are required for a loan application, they are not listed as a primary source of farm management experience.

### USDA's Definition of Experience

USDA's Farm Service Agency is a routine source of financial support to beginning farmers. They have specific definitions of "farm management experience" you must meet for their loan programs. The definition of experience, or managerial ability, depends on which type of loan application you request.

#### Farm Operating Loans

Farm operating loans are used to purchase a number of farm needs. Those needs can include production supplies, livestock, or even farm equipment. The USDA outlines that managerial ability can be shown through a combination of education, on-the-job training, and farm experience.

They provide a listing of criteria in each of those categories and require *at least one* be met.

#### Education:

- *4-year college degree or graduate degree in agricultural related field(s)*
- *2-year college degree from a technical college in agricultural related field*
- *Successful completion of farm management curriculum offered by the Cooperative Extension Service, a community college, adult vocational agricultural program, or Land Grant university*
- *Successful completion of a community-based, nationally based, non-profit, or similar farm workshop programs*
- *Vocational or general agriculture classes in high school in addition to working on a farm and participating in, and successfully complete agricultural projects in, 4-H, FFA, Tribal youth organizations, Grange Youth, or another agricultural affiliated club*

#### On-The-Job Training:

- *Working or recently worked as hired farm labor with management responsibilities (make day-to-day decisions)*
- *Completing or recently completed a farm mentorship, internship, or apprenticeship program with an emphasis on management requirements and day-to-day farm decisions*
- *Participating or recently participated in urban or community-supported agriculture programs which incorporate basic agricultural training*

#### Farm Experience:

- *Owner, manager, or operator of a farm business for at least 1 full production and marketing cycle within 5 years of the date of loan application*
- *Employed as a migrant farm worker and elevated to leadership or foreperson position for at least 1 entire production and marketing cycle with responsibilities related to crop and field management, livestock health, breeding supervision, labor management or hiring, or general farm management*
- *Raised on a farm and had significant responsibility for day-to-day management*

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- decisions for at least 1 entire production and marketing cycle*
- *Obtained and successfully repaid at least 1 FSA Youth Loan*

(U.S. Department of Agriculture, Farm Service Agency, n.d.-a)

The level of management ability required by the USDA will depend on the complexity of your operation and amount of your loan request. Every application is evaluated on a case-by-case basis. For more information on USDA Farm Operating Loans, visit [www.fsa.usda.gov/programs-and-services/farm-loan-programs/farm-operating-loans/index](http://www.fsa.usda.gov/programs-and-services/farm-loan-programs/farm-operating-loans/index).

### Farm Ownership Loans

Farm ownership loans are made primarily for real estate or building purchases. These types of loans require *three years* of experience within 10 years of your application date. USDA outlines managerial ability differently than operating loans:

*Loan applicants may substitute 1 year of those 3 years if they have 1 of the following:*

- *Post-secondary education in an agriculturally related field; and/or*
- **Significant** *business management experience; and/or*
- *Leadership or management experience while servicing in any branch of the military.*

*To gain credit for 2 out of the 3 years, loan applicants must show 2 of the following:*

- *Not less than 16 hours of post-secondary education in an agriculturally related field; and/or*
- **Significant** *business management experience with at least 1 year of management in a non-agriculture related field where the applicant's day-to-day responsibilities included direct management experience, such as personnel decisions, payroll, and inventory ordering. In other words, not an individual who is a manager in title only; and/or*
- *Having been honorably discharged from the armed forces of the U.S.; and/or*
- *At least 1-year experience as hired farm labor with substantial management responsibilities; and/or*

- *Successfully completed a farm management curriculum offered by a cooperative extension service, a community college, an adult vocational agriculture program, a non-profit organization, or a land grant college or university; and/or*
- *Successfully completed a farm mentorship, apprenticeship, or internship program with an emphasis on management requirements and day-to-day farm management decisions; and/or*
- *Successfully repaid an FSA Youth loan; and/or*
- *Have an established relationship with an individual who has experience in farming or ranching, or is a retired farmer or rancher, and is participating as a counselor in the U.S. Small Business Administration's Service Corps of Retired Executives (SCORE) program or with a local farm or ranch operator or organization, approved by the Secretary, that is committed to mentoring the farmer or rancher.*

*There are 2 ways to by-pass USDA's 3-year farm management experience requirement entirely:*

- *Use the Guaranteed Farm Ownership loan program ([www.fsa.usda.gov/programs-and-services/farm-loan-programs/guaranteed-farm-loans/index](http://www.fsa.usda.gov/programs-and-services/farm-loan-programs/guaranteed-farm-loans/index)), which works through a commercial lender; or*
- *Have at least 1-year experience as hired farm labor with substantial management responsibilities **and** be working with a SCORE mentor ([www.score.org/usda](http://www.score.org/usda)).*

(U.S. Department of Agriculture, Farm Service Agency, n.d.-b)

For more information on USDA Farm Ownership Loans, visit [www.fsa.usda.gov/programs-and-services/farm-loan-programs/farm-ownership-loans/index](http://www.fsa.usda.gov/programs-and-services/farm-loan-programs/farm-ownership-loans/index).

### Microloans

Microloans can be used for farm operating or ownership purposes. They can be made for a maximum of \$50,000 per type of loan or \$100,000 total. The USDA designed these loans for "small, beginning farmer, niche, and non-traditional farm operations, such as truck farms, farms participating in direct marketing and sales such as farmers'

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markets, CSA's (Community Supported Agriculture), restaurants and grocery stores, or those using hydroponic, aquaponic, organic and vertical growing methods" (U.S. Department of Agriculture, Food Service Agency, n.d.-c).

Microloans base management requirements on which type of loan being requested (operating or ownership). For more information on USDA's Microloans, visit [www.fsa.usda.gov/programs-and-services/farm-loan-programs/microloans/index](https://www.fsa.usda.gov/programs-and-services/farm-loan-programs/microloans/index).

The USDA's definitions for management experience reference back to many sections of this publication. Experience gained through on-farm, property leasing, mentorship, and education all present opportunities to meet loan criteria. When significant experience is required, your ability to demonstrate your managerial ability becomes even more important. Well-kept farm records, business plans, and communication of your skillset as a farm manager will be crucial to obtaining your loan.

The same importance for management experience is not just important for the USDA, but for all lenders that you may work with. Demonstrating your ability as a successful farm manager will lead to their comfort and investment in your farm business. Start preparing for those conversations today by looking for and pursuing opportunities to gain valuable experience as a farm manager.

### Final Thoughts & Recommendations

Just as each farm is different in how it operates and seeks to achieve farm profitability, each beginning farmer starts out with a different level of experience. This means that your potential as a farm manager is not based on what experience you start out with. Instead, your success is based on how you address gaining experience in business, financial, and production components of farm decision-making.

Accurately and honestly acknowledging areas of management you need to learn is essential. Opportunities to gain new knowledge and make better farm decisions always present themselves. Any occasion to improve your knowledge or gain new experience is worthwhile for you to consider pursuing. Identifying what you need to learn or

prioritizing which component(s) you should put your efforts toward is often a challenge. This is where assistance from others within your management team can help.

Every farm manager should have industry specialists on their management team. Those specialists should consist of mentors, agronomists, nutritionists, lenders, marketing specialists, and even cooperative extension specialists. Building a team with expertise in your chosen market or production area provides you with access to information about what you need to know. While you can't use their knowledge or experience to replace your own, you can use their guidance to identify where knowledge or experience may be lacking. Then, you can seek out opportunities to help improve your farm decision-making.

Gaining farm management experience is an on-going process. It begins by identifying what you need to know. It continues by pursuing that knowledge and discovering new things you don't know or understand. Opportunities to improve and gain new knowledge will only help you successfully run your farm business. Seek out those opportunities and challenge what you think you already know about managing a farm. If you do that, the only true limit to your farm's potential for success is your willingness to gain and improve your management abilities.

### References

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## Farm Management Resource Guide is brought to you by the following:

### Michigan State University Extension Educators

Eric Anderson  
Christina Curell  
Kevin Gould  
Jim Isleib  
Jon LaPorte  
Stanley Moore  
Paola Bacigalupo Sanguesa  
Frank Wardynski

Mariel Borgman  
Philip Durst  
Paul Gross  
Monica Jean  
Bruce Mackellar  
Abbey Palmer  
David Thompson  
Benjamin Werling

Corey Clark  
Jae Gerhart  
Ana Heck  
Lyndon Kelley  
Martin Mangual  
Benjamin Philips  
Phil Tocco  
Garrett Zeigler

### Michigan State University Campus Specialists

Kathryn Brandt  
Melissa McKendree

Younsuk Dong  
Vicki Morrone

Trey Malone  
Dale Rozeboom

### Michigan Agriculture Industry Partners

GreenStone Farm Credit Services  
Michigan Soybean Association

Michigan Corn  
USDA Farm Service Agency

Michigan Farm Bureau

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