

General Risk Management



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INTRODUCTION

Owning and operating a farm often involves making decisions with incomplete or imperfect information. Not having all of the information leads to uncertainty, which creates risk or the possibility of negative or adverse outcomes. Risk management is a process of taking steps to mitigate or minimize impacts from risk on your farm business.

How To Get Started

Managing risk begins with recognizing the type of risk that you want to reduce or possibly prevent. Identification is critical to understanding the potential impacts of that risk, tactics or practices you can implement, if they are likely to work, and how to optimize your overall management approach. For example, farm managers that use integrated pest management strategies are encouraged to identify potential pests and their biology. Understanding a pest life cycle can direct monitoring activities, identify critical control periods and, if necessary, determine what pesticides should be utilized.



Risk identification is also important to understand if there are any management limitations. Some risks are simply outside of your ability to control and may require additional assistance to offset their potential impacts.

Farming involves many types of risks. Some risks are more difficult to manage than others. The most common are production, market or price, financial, institutional, and human or personal risk.



Figure 1. Common types of farm risk



SECTION 1

PRODUCTION RISK

Production risk derives from the uncertain natural growth processes of crops and livestock. Weather, disease, pests, and other factors affect both the quantity and quality of commodities produced (USDA ERS, 2023).



Primary Considerations

- Weather
- Disease
- Pests
- Health and Genetics(?) – Plants and Livestock
- Land Access

Process for Getting Started



Managing production risk starts with considering your production practices. There are many types of practices that can help to reduce the chances of an adverse impact on your production goals. Understanding how your production practices contribute to minimizing risk makes how you produce ultimately as important as what you produce.

Another option to manage production risk is through diversification of what you raise. By having more than one production area, or enterprise, you can reduce the chances of total production loss in a year. How to diversify your farm should include considerations of capital needs, access and availability of markets, and expertise required for each. Enterprises that require specialized equipment, knowledge and skillsets, or competition of time may reduce potential gains.

Sometimes reducing risk requires assistance from outside the farm. Insurance policies were created as a cost-effective means to aid farmers in managing or reducing the impact of production risks. Knowing which type of insurance policies to use, and their effectiveness, requires understanding what features are available and how they align with the needs of your farm.



Land access is another type of production risk. All production types, crops and livestock, can be traced back to a need for land. Navigating the pursuit of land starts with understanding the acquisition process. If your goal is to rent farmland, begin with gaining a better understanding of land characteristics, how those influence production goals, and how to discuss those details with a landowner in the negotiation process. If your goal is to purchase land, starting with a better understanding of land characteristics is also important.

Disclaimer. For a specific list of resources in the above description, view the Necessary Resources area of this section.





SECTION 1: PRODUCTION RISK

COMMON QUESTIONS

01

How do I discover what enterprises I can diversify my farm with?

Considering other enterprises to pursue involves understanding capital needs, available markets, and potential costs of production. Ideally, enterprises that make use of existing capital (i.e., buildings, equipment) on your farm can limit additional investment costs. Available markets in your area are an important consideration. You can't sell products if there isn't anyone willing to buy them. Gaining an idea of what potential costs may be will help to decide if that potential market and type of enterprise is profitable. The steps outlined in creating a business plan can provide guidance on identifying potential enterprises for your farm.

02

Is there an insurance option for my type of farm?

There are a number of different insurance options based on types of production for plants and livestock. There are also policies that focus on revenue or a combination of revenue and production. USDA Risk Management Agency (RMA) provides a listing of the different policies available on their National Fact Sheet page: <https://www.rma.usda.gov/about-crop-insurance/fact-sheets>

03

How does insurance work?

Insurance policies that focus on production use your historical production records as a baseline for possible losses. Revenue policies use historical revenue and/or recent market prices to establish possible losses. If you're starting out and don't have history for a baseline, there are county level baselines available for new managers. You select a level of coverage based on a percentage of those baselines. If your actual production and/or revenue for the year falls below the coverage level, you will get a payment for the difference between actual and coverage levels. For more information on how insurance policies work, visit [MSU Farm Business Revenue Insurance Resource Page](https://www.canr.msu.edu/tag/farm-business-revenue-insurance), which includes bulletins, factsheets, and videos on insurance policies and how they work (<https://www.canr.msu.edu/tag/farm-business-revenue-insurance>).

04

How much does insurance cost?

Each insurance policy has different levels of coverage and protection options that affect the premium you will pay. Finding the right coverage level and protection options is an important consideration of whether to pay for insurance. Insurance agents can help you to tailor policies to best fit your farm and provide an estimate of what premiums you'll pay. To find an insurance agent near you, visit:

<https://www.rma.usda.gov/tools-reports/agent-locator>.

05

How do I know what a reasonable amount of rent is to pay for land?

Renting land requires understanding what it is you're paying for and whether you can afford to pay for it. Finding a reasonable amount of rent depends on the productivity of the farmland, your cost of production, market trends, and what you can negotiate with a landowner. A starting point for these considerations can be found in **[MSU Extension's Bulletin E-3427 Introduction to Renting Farmland](https://www.canr.msu.edu/resources/bulletin-e-3427-introduction-to-renting-farmland)** (<https://www.canr.msu.edu/resources/bulletin-e-3427-introduction-to-renting-farmland>).



SECTION 1: PRODUCTION RISK

RESOURCES & PARTNERS

Necessary Resources

Production Practices

- See Chapters on Animal Agriculture and Plants

Diversification

- See Chapter on Marketing
- **[MSU Farm Business Loans Resource Page](https://www.canr.msu.edu/tag/farm-business-loans)**: Resources on this page include bulletins, factsheets, videos, and templates to help in obtaining finances to meet your capital needs (<https://www.canr.msu.edu/tag/farm-business-loans>).
- **[MSU Farm Business Cost of Production Resource Page](https://www.canr.msu.edu/tag/farm-cost-of-production)**: Resources on this page include bulletins, factsheets, videos, and templates to help put together a cost of production budget for various enterprises on your farm (<https://www.canr.msu.edu/tag/farm-cost-of-production>).

Insurance Policies

- USDA RMA offers a wide assortment of insurance policies for different types of production agriculture: <https://www.rma.usda.gov/about-crop-insurance/fact-sheets>
- USDA RMA offers a tool to help find a local insurance agent in your area who can help you navigate insurance policy options: <https://www.rma.usda.gov/tools-reports/agent-locator>.
- **MSU Farm Business Revenue Insurance Resource Page**: Resources on this page include bulletins, factsheets, and videos to help navigate insurance options for your farm (<https://www.canr.msu.edu/tag/farm-business-revenue-insurance>).

Land Access

- **MSU Farmland Leases Resource Page** (<https://www.canr.msu.edu/tag/farmland-leasing>): Resources on this page include factsheets, videos, and information on land rent values to help navigate the leasing of farmland.

Partners

- USDA Risk Management Agency (RMA) – <https://www.rma.usda.gov/>
- USDA Farm Service Agency (FSA) Farm Programs & Services – <https://www.fsa.usda.gov/index>
- Michigan Department of Agriculture & Rural Development (MDARD) – <https://www.michigan.gov/mdard>
- MIFarmLink – <https://www.mifarmlink.org/>
- Michigan Farm Bureau Insurance – <https://www.michfb.com/insurance>
- GreenStone Farm Credit Services – <https://www.greenstonefcs.com/>
- Eagle Valley Ag Risk Advisors, LLC – <https://www.eaglevalley.ag/>



SECTION 2

PRICE OR MARKET RISK

Price or market risk refers to uncertainty about the prices producers will receive for commodities or the prices they must pay for inputs. The nature of price risk varies significantly from commodity to commodity (USDA ERS, 2023).

Primary Considerations

- Identifying Cost of Production
- Accurate Farm Records
- Research of Potential Markets
- Marketing Tools (if applicable)

Process for Getting Started

As a decision-maker on the farm, you will define what a good selling price is for your business. However, defining a price that is good and profitable is not an easy task. Understanding the complexities involved can make marketing a challenge for even a seasoned farm manager. This is important because there are times when the market will not offer a profitable price.



The key to establishing a price and protecting against profit loss is to have a clear understanding of the farm's cost of production. Knowing what costs went into producing a marketable product establishes a minimum price that must be met. Identifying your cost of production requires good, accurate details in your farm records. It also requires an understanding of what costs should be included in establishing a minimum price.

Next, examine the various market channels to see which may be the best fit for your business goals. Then, do your own market research to determine how your products will sell in the markets you want to target. Base your search on several factors including the customer base, price sensitivity, presence of competitors, and more. Once you've identified potential markets, you need to establish what a good price is in those markets and determine if it is profitable.

Necessary Resources

- See **Marketing** under the **General Topics section** of this resource guide



SECTION 3

FINANCIAL RISK

Financial risk results when the farm business borrows money and creates an obligation to repay debt. Rising interest rates, the prospect of loans being called by lenders, and restricted credit availability are also aspects of financial risk (USDA ERS, 2023).

Process for Getting Started

Managing a farm involves investing time and money toward creating a successful business. Of these investments, having enough money to cover farm needs or offset losses is a concern for beginning farmers. A common resource for new managers to obtain money, or cash, is by seeking a loan from a farm lender.



A loan is not simply a source of funds, but an investment in your farm business and its plans for success. By providing funds, lenders help to reduce risk concerns that a lack of cash can create. However, by ensuring your ability to operate, a lender takes on an amount of your farm's risk from potential losses. When lenders agree to such investments, the expectation is that you will continue to work towards offsetting risks to your farm business.



Maintaining a risk management plan is as important as updating production or marketing plans. Many factors or events happen throughout the year that the farm has little or no control over. These events are often unexpected, such as poor weather or low market prices. Your plan for mitigating these types of risks should include identifying changes you've made or are being made to offset them. Changes may be in marketing strategies, capital assets used to secure a loan, production practices, types of production grown, and even insurance policies.

The next step is to consider how changes to offset risk will impact financial risks. These can include market environments, production environments, loan security, cash availability, cash flow and repayment of lender debt.

Necessary Resources

- See the **Financing** section of this resource guide.



SECTION 4

INSTITUTIONAL RISK

Institutional risk results from uncertainties surrounding Government actions. Tax laws, regulations for chemical use, rules for animal waste disposal, and the level of price or income support payments are examples of government decisions that can have a major impact on the farm business (USDA ERS, 2023).

Necessary Resources

- See the **Income Tax Management** section of this resource guide.



SECTION 5

HUMAN RISK

Human or personal risk refers to factors such as problems with human health or personal relationships that can affect the farm business. Injuries, illness, death, and divorce are examples of personal crises that can threaten a farm business (USDA ERS, 2023).

Process for Getting Started

Farming is one of the most dangerous occupations in the United States. It involves long hours, fatigue, and even stress that can add to the risk of injury. When we experience these effects, it can lead to distraction or cause errors that may lead to incidents that may be serious and even fatal.

Property safety precautions are essential to avoiding those types of incidents. Safety on the farm begins by identifying potential hazards around the farm and creating a plan to protect yourself, your workers, and family members. This may include, knowing when to and not to enter an area, wearing the proper work attire and personal protective equipment, ensuring you or other farm workers are visible to each other, and having an emergency plan in case the worst happens.



For equipment, safety starts with routine maintenance and keeping machinery in good working order. Reading the operation manual to identify all hazards and use all safety features is also a necessity. For used equipment, this may require ordering a replacement manual from the manufacturer or another online company.

Working with livestock requires understanding an animal's behavior or responses to changes in its environment. Training on equipment, procedures, and policies is also essential – all workers and family members working on the farm should understand how to keep themselves and others safe.



SECTION 5: HUMAN RISK

COMMON QUESTIONS

01

If a severe injury or death occurs on my farm, am I required to report it to Michigan Occupational Safety and Health Administration (MIOSHA)?

Yes, if the person injured was working on the farm at the time of the incident (paid worker, unpaid family member, volunteer, owner). All farms in Michigan are required to report; small farming operations are not exempt. Failure to report can result in citations and monetary penalties.

Death: If a death occurs, then MIOSHA requires reporting within **8 hours of the death**. The MIOSHA toll-free number to report work-related fatalities/catastrophes is 800-858-0397.

Severe Injuries: For injuries that do not result in death, reporting is still required if the individual lost an eye, suffered an amputation, or was hospitalized. MIOSHA requires reporting of a severe injury within **24 hours of the incident** causing the severe injury. There are two ways to report: online (<https://forms.leo.state.mi.us/miosha-incident-report/>) or via the toll-free number, 844-464-6742.



SECTION 5: HUMAN RISK

RESOURCES & PARTNERS

Necessary Resources

- MIOSHA severe injury/death reporting requirements: <https://www.michigan.gov/leo/bureaus-agencies/miosha/reporting-fatalities-and-injuries>
- Michigan Farm safety resources: <https://oem.msu.edu/index.php/work-related-injuries/farm-related-injuries>
- Developing a farm safety plan: <https://icash.public-health.uiowa.edu/programs/seasonal-campaigns/farm-safety-planning>
- Safety guidelines for youth working, visiting, and living on the farm: <https://cultivatesafety.org/>
- Farm Safety for youth (age 14- to 17-years old) training program: <https://www.fb.org/initiative/farm-bureau-safety-health-network/think-f-a-s-t>

Partners

- National Ag Safety Database (NASD) topics page:
<https://nasdonline.org/browse.php>
- Michigan Occupational Safety and Health Administration:
<https://www.michigan.gov/leo/bureaus-agencies/miosha/topics/agricultural-operations>
- National Occupational Safety and Health Administration:
<https://www.osha.gov/agricultural-operations>
- National Institute for Occupational Safety and Health:
<https://www.cdc.gov/niosh/agriculture/about/index.html>