GENERAL TOPICS

Environmental Risk

AUTHORS & INSTITUTIONS

Sarah Zeiler, Environmental Management Educator, Michigan State University Extension

SECTIONS

Section 1: Environmental Risks

Developed by:

MICHIGAN STATE UNIVERSITY | Extension

USDA

Sponsored by:

GreenStone® FARM CREDIT SERVICES

INTRODUCTION

Owning a farm and managing land brings a responsibility to manage the land and resources of the land with care for the future as a steward. Considering the environmental impacts of the operation can reduce environmental risk and financial liability and, in some cases, allow for participation in programs that can pay the operation for good stewardship.

How To Get Started

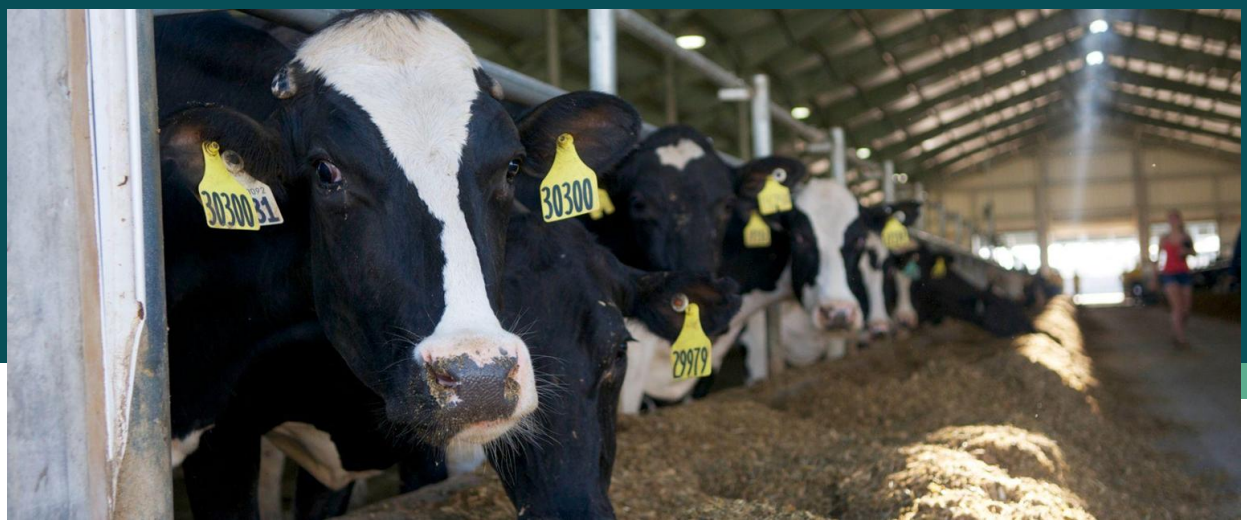
Environmental stewardship starts with being honest with yourself about your actions and the impacts of those actions on the environment and the future. Not all impacts can be mitigated entirely, but reduced impact will leave you open to less risk and is more likely to leave a legacy for future generations.

Begin by assessing your environmental impact using a tool like the ***Michigan Agricultural Environmental Assurance Program***. You can access this program through your local Conservation District. Remember that each enterprise will have its unique risks. Take a look at enterprises that may seem benign more closely as they may have hidden risks; for example, organic agriculture seems like it would have lower risk environmentally, however, it uses more tillage than traditional no-till farming and is at a high risk for soil erosion.

Once you have honestly assessed your environmental risk, make a list of changes you can make to lower this risk. Some items on this list can be easy to fix, like putting gutters on a building; others may take time like improving soil health.

You may want to seek technical or financial assistance with accomplishing items on this list. Agencies that can help with technical assistance are ***Michigan State University Extension*** and the ***Natural Resource Conservation Service (NRCS)***. Financial assistance is accessible through ***NRCS, the Farm Service Agency (FSA), and Conservation Districts***. Grants may also be available through other agencies. Lists of granting agencies that beginning farmers can access are available through MSU Extension. Carrying out these improvements can be daunting, however assembling a team of trusted advisors can make the work feel like it isn't on your shoulders alone.

Environmental Risk, unlike other kinds of risk, may seem less urgent. It has a way of building over a long period until something gives way to a rush of problems. Being vigilant and steadily working on your plan for sustainability can curb, or at least temper, future disasters.



SECTION 1

Environmental Risks

Primary Considerations

- Soil health
- Water quality
- Waste management
- Climate preparedness
- Energy efficiency

Process for Getting Started

- Assess environmental impact
- Make a list of areas to be improved
- Seek out technical and financial support, if needed
- Carry out improvements
- Re-assess environmental impact and adjust

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

ENVIRONMENTAL RISKS

COMMON QUESTIONS

01 How do I soil test?

First, plan on where to sample. Split the area so that samples represent no more than 40 acres. This area can be grouped by management, cropping history, topography, or soil type.

Next, decide on a sampling depth. Your crops and tillage will decide sampling depth in the future, but starting with the top 6" is generally considered a good practice.

Now, collect soil cores. You can use a spade or a soil probe. You will take 20 samples in total. Place these samples in a bucket. Mix the soil samples in the bucket—pour the sample onto a newspaper to dry overnight. Fill a sample bag with the dried sample. Be sure to send the amount of soil requested by the lab.

Complete any forms for the laboratory and pack the sample. Follow the lab's instructions to send the sample and forms.

02 How do I dispose of manure?

Developing a manure management plan may seem like a difficult task, or something done by large farms, but the components of a plan can be applied to all types of farming operations. A common misconception is that manure management must be an all-or-nothing approach. This is not necessarily the truth as many plans are developed and implemented using an integrated approach. Many small farms can benefit by looking at the components of a manure management systems plan, evaluating what is feasible for your farm, and understanding what options may be available. It also enables you to develop a sustainable plan for the future by reducing environmental risk and streamlining fertilizer costs. Follow the steps in the Small Farm Manure Management Planning resource.

03 I feel like I am fighting the weather. Is there anything I can do?

Risk is not new to farming but the increasingly variable climate has become more impactful. The key to working with the weather is how you prepare and respond. The Climate Ready tool was developed using the current body of research around mitigation and adaptation to climate. This tool is for inward reflection, looking to help each unique farm find the best choices for their operation. Since each farming system has a built-in amount of risk, achieving a "no risk status" is nearly impossible. So the goal is to move the bar towards less climate risk.

04 How do I get my pesticide applicator's license?

You may become certified as a private or commercial applicator in Michigan. You can take the test for this certification through the Michigan Department of Agriculture. You can buy study materials, like **The National Pesticide Applicator Certification Core Manual,** through Michigan State University Extension. You may also choose to take a preparation course with MSUE before your exam.

05 Can I get help paying for any of this?

Yes, you can receive assistance to start making your farm business more sustainable. Contacting the partner agencies listed below is the first step. These agencies will help you develop a conservation management plan that can mitigate any resource concerns on the farm. They will also guide you to funding opportunities for cost share, grants, and loans.

RESOURCES & PARTNERS

Necessary Resources

Soil Testing

- https://www.canr.msu.edu/resources/the-anatomy-of-a-soil-test-report
- https://www.canr.msu.edu/soil_health/uploads/files/Soil%20Sampling%20Guide.pdf

Manure Management

- https://www.canr.msu.edu/resources/small-farm-manure-management-planning

Climate Readiness

- https://climateready.rsgisnext.msu.edu/

Pesticide Safety

- https://www.michigan.gov/mdard/licensing/pesticide/pesticide-applicator-certification
- https://www.canr.msu.edu/news/revised_core_pesticide_applicator_rup_study_manuals

Financial Assistance

- https://www.michaelfields.org/grants-advising-resources
- https://www.nrcs.usda.gov/

Partners

- **Natural Resource Conservation Service**
  https://www.nrcs.usda.gov/
- **Farm Service Agency**
  https://www.fsa.usda.gov/
- **Conservation Districts**
  https://www.macd.org/
- **U.S. Fish and Wildlife Service**
  https://www.fws.gov/
- **Pheasants Forever**
  https://www.pheasantsforever.org/
- **Michael Fields Institute**
  https://www.michaelfields.org/grants-advising-resources