

What is an Environmental Management System?



It's a system.

sys•tem (sis 't?m) n. A group of interacting, interrelated, or interdependent elements forming a complex whole; An organized and coordinated method.

An AgEMS is a powerful, performance-based, decisionmaking system that covers all levels of farm management, from daily operations to long range planning.

A commitment to environmentally sound land management is essential.

An EMS:

- Focuses on environmental stewardship and business efficiency
- Is farmer-directed and voluntary
- Builds on what is already in place
- Involves family, employees, consultants, community
- A way to organize, prioritize, document, improve and take credit for environmental performance

You already (sort of) have an EMS!

You don't have a name for it.

It's not written down.

You have no way to share it.



An EMS starts with all the good things you are already doing.





Benefits of an EMS

An EMS can...

- √ Facilitate regulatory compliance
- ✓ Document stewardship efforts
- ✓ Improve neighbor and community relations
- ✓ Enhance business management & efficiency
- ✓ Maintain or improve access to markets
- ✓ Protect health of family & employees
- ✓ Capitalize on environmental programs
- ✓ Lower insurance premiums

Improve Environmental









You have a wealth of resources to help you succeed.

Regulatory Review





Environmental priorities depend on...

- Sensitivity of local landscape
- Crops grown, livestock raised
- Regulations
- Personal/family goals, ability, knowledge
- Community and neighbor concerns
- Environmental degradation that has occurred
- Availability of resources and solutions
- Current level of environmental stewardship
- Health impacts: family/employees/public

The Environmental Policy

- The foundation of an EMS
- The declaration of your commitment to the environment
- Provides a unifying vision of environmental stewardship for the entire organization
- The framework for setting environmental objectives and targets
- Directs goals, responsibilities, and the establishment of performance milestones against which the management system is judged

The Environmental Policy

is developed by the farm owners/managers and must include commitments to:

- ✓ Regulatory compliance
- ✓ Pollution prevention
- ✓ Continual improvement

A Robust Environmental Policy is:

- ✓ Communicated to and understood by employees, service providers
- ✓ Made available to the public
- ✓ Reviewed often

This too is a process, not just words on paper.

Assessing Performance



Assessing Performance

- On-line & paper assessments
- Standards, specifications, regulations
- Publications, BMP manuals
- Working with conservationists, agronomists, consultants, biologists

Environmental Objectives



Examples of Environmental Objectives

-- from assessments --

- Soil erosion less than "T" on all fields each year
- Stabilize creek banks
- Install approved fuel storage tanks
- Install rain gutters; feedlot water diversion berm
- Reduce odor/noise complaints
- Install waterways on all crop fields
- Phosphorus content of feed of 0.38%
- Soil test phosphorus levels below 150 ppm
- Develop emergency training

Environmental Action Planning



Environmental Action Planning

- ✓ Choosing techniques & technologies, plans & practices to address environmental impacts.
- ✓ Use standard operating procedures (SOPs) to maintain and improve daily management.
- ✓ Decide who is responsible for doing it.
- ✓ Lay out a timeline for when it will all get done.
- ✓ Use performance measures to review and determine effectiveness in reaching your goals.

The what, how, who, where, & when of getting it all done.

Performance Measures

Some examples...

- Visual inspections of facilities, equipment
- Record weekly electricity use
- Soil, feed, manure sampling
- Estimate soil erosion using RUSLE2
- Monitoring stream health
- GPS generated yield data
- Results of on-line assessments

Checking and Corrective Action

Monitor activities w/significant impacts



Photo courtesy of USDA NRCS

- ✓ Maintain good practices
- ✓ Identify needed improvements
- ✓ Implement corrective actions
- Document positive actions
- ✓ Document positive results
- ✓ Communicate corrective actions

Emergency Action Planning



Emergency Action Planning

Identify potential for, responses to emergencies:

- Weather
- Power Failure
- Fire
- Vandalism

- Equipment Failure
- Accidents
- Structural Failure
- Biohazards

Develop emergency response procedures:

- Practice drills
- Involve local experts
- Document/review any incident

The money, lives, and livelihood you save may be your own.

Communications



Internal Communications

To ensure everyone involved...

- ... could run the farm without owners/managers
- ... provides feedback when goals are, are not met
- ... feels comfortable reporting deviations/mistakes
- ... is encouraged to suggest improvements
- ... has a sense of ownership
- ... shares a common vision for the farm
- ... knows what they are responsible for, how to get it done, and why it is being done

External Communications

So that stakeholders...

- ... understand your environmental commitment
- ... become familiar with your farm and EMS
- ... know what you are doing and plan on doing
- ... help you address/avoid complaints, legal actions
- ... can become useful sources of input
- ... can help you solve problems
- ... can become your supporters



Management Review

- Ensures EMS continues to be relevant, effective
- Identifies needed changes in policy, priorities, objectives and other elements of the EMS

Management Review Topics:

- Environmental Policy
- Priority Issues
- Environmental Objectives
- Performance Measures
- Communications

- Regulatory Review
- Environmental Assessments
- Emergency Planning
- Environmental Action Plan
- Audit Results

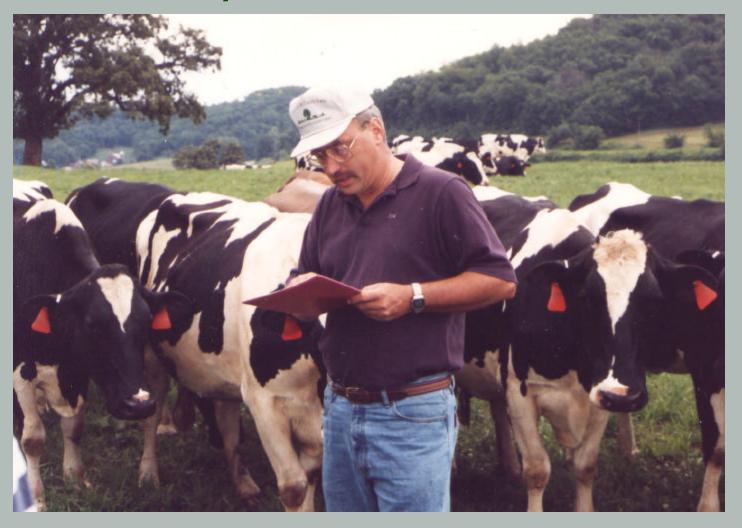
The documents that become the EMS.

Independent Audits

To Verify:

- ✓ All EMS components are in place
- Environmental policy is being upheld
- ✓ Implementing procedures & practices
- ✓ Making progress
- Meeting objectives

Records, Document Control



If you can't prove it, you didn't do it!

Records must be:

- ✓ Legible
- √ Useable
- ✓ Accessible
- ✓ Accurate
- ✓ Traceable
- Protected



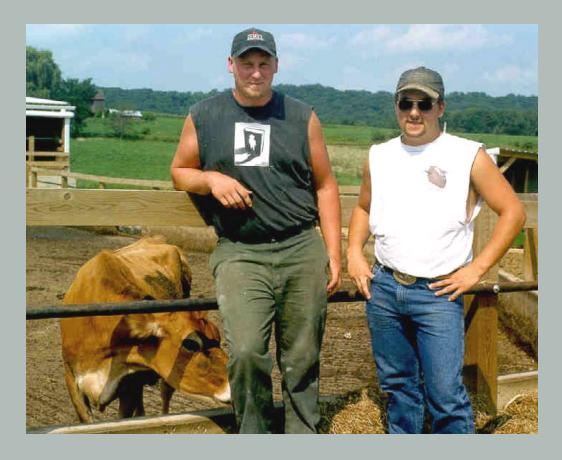
All farms are different.
All farms need good records.

You'll know it's working if...

- ... it is useful and acceptable to farmers
- ... it is credible to environmental agencies & organizations
- ... it continually improves environmental performance
- ... environmental management is incorporated into day-to-day operations

...your EMS documents are dog-eared and coffee stained!

A final word...



- An EMS is a thoughtful, deliberate system, not a static final product.
- Owners/top management must lead the EMS.
- Combining environmental stewardship into routine business management is the key.