Agricultural Best Management Practices

A Few Observations from the Field of Soil & Water Conservation

Photo courtesy CRWP
Best management practices (BMPs) are structural or non-structural measures, practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to surface or ground water.
The BMP “Toolbox”

- Alley Cropping
- Anaerobic Digester
- Animal Mortality Facility
- Aquaculture Ponds
- Channel Bed Stabilization
- Composting Facility
- Conservation Cover
- Conservation Crop Rotation
- Constructed Wetland
- Contour Buffer Strips
- Contour Farming
- Cover Crop
- Cross Wind Ridges, Trap Strips
- Dam, Dike, Diversion
- Drainage Water Management
- Dry Hydrant
- Early Successional Habitat
- Farm Energy Improvement
- Fence
- Field Border
- Filter Strip
- Grade Stabilization Structure
- Grassed Waterway
- Heavy Use Area Protection
- Hedgerow Planting
- Herbaceous Weed Control
- Herbaceous Wind Barriers
- Irrigation System, Sprinkler
- Irrigation Water Management
- Karst Sinkhole Treatment
- Lined Waterway
- Nutrient Management
- Pest Management
- Prescribed Burning
- Prescribed Grazing
- Conservation Tillage
- Riparian Forest Buffer
- Roof Runoff Structure
- Sediment Basin
- Spring Development
- Stormwater Runoff Control
- Stream Crossing
- Stream Habitat Improvement
- Streambank Protection
- Stripcropping
- Structure for Water Control
- Subsurface Drain
- Surface Drain
- Terrace
- Tree/Shrub Establishment
- Vegetated Treatment Area
- Vegetative Barrier
- Waste Facility Closure
- Waste Storage Facility
- Water-Sediment Control Basin
- Water Harvesting Catchment
- Water Well Decommissioning
- Watering Facility
We have plenty of “Ps”
We need a lot more more “M”.
Six stages in adopting BMPs:

1) Awareness of the problem
2) Interest in more information
3) Evaluation -- How can the BMP can be applied to my farm?
4) Trial -- Testing the applicability at a specific site
5) Adoption -- full use of the technology
6) Adaptation -- farmer customizes BMP to fit their needs

-- At any stage: Rejection

Farmers get their information from different sources as they progress through each stage.
Reasons why farmers may be UNWILLING and/or UNABLE to adopt recommended BMPs ...
The Many, Rational Reasons why we may be Unwilling and/or Unable to Adopt Recommended BMPs

Unable to Adopt:

1) Information lacking or scarce
2) Costs of obtaining information too high
3) Complexity of the system too great
4) Too expensive
5) Labor requirements excessive
6) Planning horizon too short (benefits too far in the future)
7) Limited availability/accessibility of local supporting resources
8) Inadequate managerial skill
9) Little or no control over the adoption decision

Unwilling to Adopt:

1) Information conflicts or inconsistency
2) Information deemed not applicable
3) Conflicts with current production goals
4) Ignorance on the part of the farmer or promoter of the technology
5) Inappropriate for the environment/physical setting
6) Perceived increased risk; negative outcomes
7) Belief in traditional practices; what’s working

“I would much rather use a shovel than a pencil”
A small proportion of mismanagement on vulnerable locations or times causes a large proportion of environmental impact.
Putting Process before Practice

Landscape targeted
Performance-based
Farmer/landowner led
Neighborhood scale

Solutions discovered, not pre-scribed...
What do farmers successfully engaged in environmental management have in common?
Commitment
-- environmental stewardship

Community
-- conservationists, customers, bankers, neighbors, family, associations …

Continual Improvement
-- innovation, performance data … curiosity

…business & environmental performance linked

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What’s my thinking?

- We have a long way to go to achieve needed pollution runoff reductions
  --require new norms across the landscape
- NPS a completely different animal
  --solutions will require (almost) everyone
- People do not know/ see NPS
  --we don’t make the water quality connection
- Landowners have to step up
  --everyone is an environmental manager
- It is all about relationships
A few more thoughts ...

✓ There are many, many examples of what needs to be done being done!
  --we have BMPs aplenty
  --we need on-farm, performance-based assessment tools/techniques + clear standards

✓ We’re all in this together
  --we should all take responsibility for the water that runs off our property, including our public property

✓ In any system there are many things that are working; start there  --see Appreciative Inquiry

✓ We make the road by walking: partnerships
  --see Adaptive Management
Conservation is a positive exercise of skill and insight, not merely a negative exercise of abstinence and caution.

Prudence never kindled a fire in the human mind; I have no hope for conservation born of fear.

—Aldo Leopold, *The Farmer as a Conservationist*

“Conservation is not a set of constraints. Ecological stewardship is an opportunity, a positive part of life”

—Dick Cates, WI Farmer and Agriculturist
Thank You!

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