Critical Thinking:
The Best Risk Management Tool- Holistic Decision Making

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Critical Thinking: The Best Risk Management Tool

Holistic Decision Making

Agricultural Outlook 2011
Critical Thinking

“Purposeful, reflective judgment concerning what to believe or what to do.”

But, can be very difficult given a world of complexity.
“The world is not only more complex than we can imagine, it’s more complex than we can *possibly* imagine.” - Jim Crofoot.
Critical Risks

Drought, Flooding, Pests, Etc

Failing Rural Economies

Families Leaving the Land
Mechanical vs Complex

Things We *Make*
- Transport: Air, Land, Water
- Space Exploration
- Weaponry
- Radios, TVs, Satellites
- Computers, Robotics
- Medical Technology, Genetic Engineering

Things We *Manage*
- Economies
- Societies
- Rangelands
- Oceans, Rivers
- Fisheries
- Forests
- Wetlands

Photo by Dawsean
Holistic Decision Making

Managing Complexity toward a balance of:

Social
Financial
Environmental

Short and Long Term
Core Decision-Making

- General idea of where we are going on our farm, family, or business
- Objectives/Problem Solving
- Possible Actions
- Considerations
- Implement Action
- Monitor to “see what happens”

Holistic Decision-Making

- Define All Resources
- Define where you are going
- Ground decisions in biological foundation
- Test Decisions
- Monitor to produce results
Creating Context

Whole Farm Goal

- Where are we going/what’s important to us?
- What do we have to produce/create?
- How must our resources function – 1000 years?
Testing Decisions

- Root Cause
- Weak Link – Bio, Socio, $$
- Gross Profit
- Marginal Reaction
- Energy/Money – Source and Use
- Sustainability
- Society & Culture
Monitoring to Produce Results

Early Warning
Biological Monitoring
Producer Example

- 13,000 acres in Eastern NM
- Snakeweed = 11%
- Recommended Action—spray Tordon 22 (DOW Chemical)
Results

Temporary:
Reduction/setback of snakeweed
Increase/loss in production

Followed by:
Return of snakeweed
Fall in production

Two treatments - $26,000
No long-term financial return
An Alternative Approach that Deals with Complexity

For a Sound Decision:
– Consider ‘the Whole’
– Work toward Holistic goal, not objective (i.e. eradication)
– Functioning of Four Ecosystem processes
– Cause and Effect - what is the Underlying Cause?
– Monitor to produce results
Results after Holistic Decision-Making

The Original Situation...
- 11% snakeweed
- 6 species perennial grass
- 300 animals avg (12lbs/acre meat)
- 1 family earning a living
- Springs dried up (early 1900’s)

Four Years Later...
- 1% snakeweed
- 19 species perennial grass
- 900 animals avg (25 lbs/acre meat)
- 3 families earning a living
- Springs re-appeared mid-1990s
- Family vacations and golf
Allan Savory’s Work

Originator of Holistic Management
Working for 50 Years to penetrate policy and institutional thinking

2003 Winner of Australia’s Banksia Award

2010 Winner Buckminster Fuller Challenge

Worldwide results...