Habits for Effective Farmers
Webinar Series: Risk Management

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Habit 4: Risk Management

Steps in Developing a Risk Management Plan

1. Identify Risks
2. Measure Risks
3. Risk Bearing Capacity
4. Evaluate Risk Tolerance
5. Risk Management Goals
6. Risk Management Tools
7. Professional Assistance
8. Action and Plan Implementation
9. Evaluate Results

“Risk is what makes it possible to make a profit. If there was no risk, there would be no return to the ability to successfully manage it.” - ERME
Identify Risks

Types of Agricultural Risk

1. Production
2. Marketing
3. Financial
4. Legal
5. Human
Production Risk

• Any production activity, input or process that can result in a range of outcomes.

• Main types of production risk
  – Weather
  – Climate changes
  – Pests
  – Diseases
  – Technological obsolesce
  – Input quality
  – Theft
Marketing Risk

• Market related activity or event that leads to the variability of input/output prices.
  – Global/national weather.
  – Government action (tariffs, new regulation, etc.)
  – Market access.
Financial Risk

• Factors that threaten the financial health of the business.
  – The cost and availability of capital.
  – The ability to meet cash flow needs in a timely manner.
  – The ability to maintain and grow equity.
  – The ability to absorb short-term financial shocks.
Legal Risk

There can be legal implications for many farmer decisions that interact with other types of risk.

- Repayment of operating loan
- Pesticide application
- Marketing contracts
- Employee rules and regulations
- Inheritance laws

5 categories of legal risk

1. Contractual agreements
2. Business organization
3. Laws and regulations
4. Tort (one person causes damage, injury, or harm to another person) liability
5. Public policy and attitudes
Human Risk

Human risk management is the ability to keep all people who are involved in the business safe, satisfied, and productive.

Types of human risk

1. Human health and well-being
2. Family and business relationships
3. Employee management
4. Transition planning
Measuring Risk

• Probability of outcomes.
  – Objectively measured
  – Subjectively estimated
• What are the range of outcomes (high – low; or best-worst).
• Shape of distribution?
• Importance of record keeping and data analysis.
Risk Bearing Capacity

• Ability to withstand the outcome.
  – Financial loss from a decision (liquidity and solvency)

• Cash flow obligations.
  – Time and magnitude
  – Greater portion of cash inflow or outflow = lower risk tolerance?

• Records and data!
2016-2018 US Total Corn Expenditure Averages
($675.23/acre)

- Seed: $97.21, 14%
- Fertilizer: $119.96, 18%
- Chemicals: $85.98, 13%
- Opportunity cost of unpaid labor: $116.35, 17%
- Repairs: $159.93, 24%
- Opportunity cost of land: $26.77, 4%
- Other*: $36.08, 5%

*Custom services; Fuel, lube, and electricity; Purchased irrigation water; Interest on operating capital; Hired labor; Taxes and insurance; General farm overhead

Survey base years are those in which a survey of producers was conducted. These years provide a baseline from which estimates in subsequent years are set.

1996-1998 US Total Corn Expenditure Averages
($360.18/acre)

- Seed: $28.46, 8%
- Fertilizer: $60.79, 17%
- Chemicals: $49.03, 14%
- Opportunity cost of unpaid labor: $27.22, 8%
- Repairs: $16.20, 4%
- Opportunity cost of land: $64.66, 18%
- Capital recovery of machinery and equipment: $27.98, 8%
- Other*: $60.79, 17%

*Custom services; Fuel, lube, and electricity; Purchased irrigation water; Interest on operating capital; Hired labor; Taxes and insurance; General farm overhead

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Evaluate Risk Tolerance

• Risk Averse
  – Cautious = low risk + lower reward

• Risk Neutral
  – Degrees of risk that the producer weighs while trying to maximize profit

• Risk preferring
  – Enjoy risk as challenging and exciting and look for the chance to take risks for the potential for higher rewards
Risk Management Goals

• Goals are specific, measurable, attainable, challenging but realistic, time specific, written, and performance based.
• Goals should focus on factors/decisions that one has the most control over.
  – Internal vs. external factors.
• Goals should:
  – Reflect the values, interests, resources, and capabilities the business;
  – Provide a basis for all business and family decisions;
  – Set priorities for the allocation of resources; and,
  – Measure progress.
Risk Management Tools

• Identify the tools that are available to mitigate specific types of risk:
  – Location, commodity, size, and resource specific
• Identify your understanding and willingness to use the tools.
• Some tools reduce risk (herbicides, irrigation) some offset risk on third parties (crop insurance, contracts).
Professional Assistance

• Actively seek out professionals that can assist with managing identified areas of risk.
• Professional advice will vary based on operation size, commodities, and location.
• Examples: Ag lenders, insurance agents, Extension, consultants, other producers, etc.
Make a Decision and Implement the Plan

• Construct a written plan and implement it!
  – Write down the plan (develop steps).
  – Set timeline.
  – Determine how to track progress and measure outcomes.
Evaluate Results

• Have a mechanism to collect results.
• Compare actual with anticipated results.
• Make adjustments for future decision cycles.
OVERALL RISK MANAGEMENT PLAN CHECKLIST

• Have the primary sources of risk been identified and classified?
• Have the risk outcomes and their likelihood or probability of occurring been estimated?
• Has the financial capacity of the business or ability to bear risk been evaluated?
• Have the risk tolerances of the business operators been considered?
• Are risk goals written and are they specific, measurable, attainable, relevant, and timed?
• Have the goals been shared with everyone involved in the business?
• Have risk tools and strategies been identified to help manage risks which could prevent achieving established goals?
• Has a confident relationship been established with a team of risk management advisors, so they can help assess and manage business and personal risk exposure?
Managing Production Risk

• Growers have three choices in dealing successfully with production risks:
  – They can control or minimize risk through management practices by doing a better job of what they currently do.
  – They can reduce production variability by making changes such as diversifying, integrating, applying new technology, etc.
  – They can transfer production risk to someone else through contracting, purchasing insurance, etc.
Tools to Manage Production Risk

• Diversification
• Flexibility
• Vertical integration
• Technology and innovation
• Contracting (inputs or outputs)
• Insurance (property, health, life, disability, liability, crop)
PRODUCTION RISK MANAGEMENT CHECKLIST

• What are your major sources of crop and livestock production risk?
• Are the knowledge and management capabilities available to diversify or add another enterprise?
• Is there a strong level of commitment to diversify?
• What are the income and risk relationships between a prospective new enterprise and existing enterprises?
• Will the new enterprise provide effective diversification?
• What are the implications of a crop loss on the ability to meet debt obligations and cash flow needs?
• Which crop insurance product(s) and coverage offer the best protection for the coverage needed?
• Which coverage will best complement the marketing plan?
• Are there no cost or low cost practices that can be implemented to control or minimize risk?
• Is contracting a viable method of transferring risk?
• What are the legal conditions and implications of contracting?
• What are the economic benefits and risks of adopting new technologies?
Managing Marketing Risk

• Write a marketing plan.

• A marketing plan sets specific actions to be taken and the steps needed to accomplish the business goals. It requires:
  – an understanding of the alternatives and the tools the business wishes to use;
  – analysis of the alternatives; and
  – the discipline to follow through.
Components of Marketing Decisions

• When to price or sell
• Where to price or sell
• What form, grade, or quality to sell
• How to price
• What services to use
• When and how to deliver
Marketing Risk Management Checklist

- Is the marketing plan feasible and does it fit the producers’ risk preferences?
- Is the marketing plan coordinated with the financial plan to ensure farm income meets cash flow needs?
- Is the marketing plan coordinated with the crop insurance plan?
- Based on historical yield records, what are the expected yields and what are the production costs and breakeven prices for those yields?
- Does the producer’s lender understand the marketing plan and will the lender provide the needed financial support to carry it out?
- What are the costs, returns and associated risks alternative strategies?
- Where can the producers get the professional help that they are most comfortable with and will provide assistance that is consistent with the situation, goals and risk management philosophy?
- How can producers best upgrade their marketing knowledge and skills?
Managing Financial Risk

• Financial statements
  – Balance Sheet, Income Statement, Cash Flow

• Financial Performance Measures
  – Liquidity, Solvency, Profitability, Repayment Capacity

• Basic components of financial risk
  – Cost and availability of capital, meet cash flow needs in a timely manner, ability to absorb short term financial shocks, maintaining and growing equity
FINANCIAL RISK MANAGEMENT CHECKLIST

• Are the financial records in place that are needed to monitor the financial position of the business and the financial risks it faces?
• What have been the financial trends of the business?
• How do the key financial ratios compare to the guidelines and to those of similar operations?
• What is the relationship with lenders and how can that be enhanced to lower the interest rate charged?
• What are the cash flow needs of the business for operating inputs, machinery, personnel, land costs, debt payments, taxes, living costs and farm overhead?
• How can profit margins be protected?
• Have family living expenses followed projections?
• Have “what if” scenarios been conducted to evaluate the financial impacts of uncontrollable events?
Managing Legal Risk

- Contractual arrangements
- Business organization
- Laws and regulations
- Liability
- Public policy and attitudes
LEGAL RISK MANAGEMENT CHECKLIST

• Are property and liability insurance policies adequate?
• Have all new acquisitions been added to insurance coverage?
• Are contracts in place to specify the performance and remuneration for all parties?
• Is care taken to ensure that all parties have sufficient knowledge to make informed decisions?
• Do contracts include terms and remedies in the event of default?
• Are farm activities in compliance with local, state, and federal laws and regulations?
• Do owners and managers stay current on changes in laws and regulations?
• Do owners and managers stay current on trends in consumer attitudes and preferences?
Managing Human Risk

- Structure work assignments and schedules consistent with skill level and physical limitations.
- Include safety precautions in all aspects of training.
- Allow sufficient time for physical and mental rest.
- Utilize proper machine guarding and maintain equipment to manufacturers’ recommendations.
- Follow instructions exactly when using chemicals.
- Always use protective equipment (seat belts, safety gear, goggles, gloves, boots, etc.).
- Purchase health, life and disability insurance policies.
Managing Human Risk

• Provide training for back-up support within the farm business in areas such as record keeping, financial analysis, market planning, and production management.
• Practice open, honest, and effective communication.
• Establish family rules and policies to guide family members in their personal business and family relationships.
• Seek legal counsel regarding financial and tax implications before people exit the business due to death, illness, divorce, retirement, alternative employment opportunities, and estranged relationships.
Succession Planning

• Establish transition goals to guide decision making through the process.
• Consider who else should be involved to make decisions about transition planning.
• Consider both the process and outcome when determining what is fair and equitable for the distribution of property.
• Prepare an estate plan.
• Plan for any legal, tax, or other consequences that may arise as a result of the decisions.
HUMAN RISK MANAGEMENT CHECKLIST

• Has an overall farm safety and health plan been prepared and shared with family members, business partners and employees, including: training and guidelines for machinery operation, use of safety equipment, training and procedures for using chemicals, training and methods for taking care of the physical and mental well-being of all people involved in the business?
• Is farm safety included in all training opportunities?
• Have back-up support training, how-to manuals, and contingency plans been developed to prepare for unexpected absences or when human resources are unable to produce?
• Have communication forums (family council meetings, family business meetings, business rules and policies) and conflict resolution processes been established to manage the family component of the farm business?
• Have employee management procedures (worker compensation, reward systems, benefits packages, job descriptions, orientation and training opportunities, etc.) been developed and incorporated into the management plan?
• Has a transition plan (will, estate plan, etc.) been prepared and is it current?
Summary

• Identify risks
• Develop a plan
• Implement the plan
• Measure the results
• Improve the plan for the next production period

• Data and record keeping is one of the most important assets in managing risk.
Please complete the session evaluation at https://tiny.utk.edu/7HabitsEval

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