

Risk Management for Carbon Programs: Questions Every Farmer and Rancher Should Ask

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Farmers and ranchers must navigate a range of economic risks that can impact their profitability and long-term sustainability. Five key economic risks in agriculture include production risk, market risk, legal risk, human risk, and financial risk. In the context of carbon markets, production, market, and legal risks are inherent and should be managed. Below is a list of questions for farmers and ranchers to consider when developing a risk management plan for participating in (voluntary or mandatory) carbon programs. Understanding and managing these carbon market risks is essential for ensuring the resilience and success of agricultural operations.

Production Risks

- ▶ What climate-smart practice(s) does the carbon program require you to adopt?
- ▶ How will adopting climate-smart practices (e.g., cover crops, no-till, rotational grazing) impact your production system?

Examples:

- Can you plant and terminate a cover crop in a timely manner without impacting the following cash crop?
- Will the adoption of cover crops require additional or changes in management strategies to the following cash crop (e.g., additional fertilizer requirements and water demand)?
- How will you handle weed pressure and compaction issues when adopting no-till?
- Do you have enough pasture to rotationally graze given your typical stocking rate?

- How would deliberately incorporating trees into your grazing system impact your management strategy?

- ▶ What infrastructure requirements are required to adopt climate-smart practices (e.g., machinery, storage, fencing, and water)?
- ▶ What additional labor requirements are required to adopt climate-smart practices?

Market Risks

- ▶ What is the cost of implementing climate-smart practices?
 - Have you conducted a sensitivity analysis on your budget to see how the cost of implementing climate-smart practices impacts profitability?
- ▶ What premiums/payments are required to cover the direct and indirect costs of implementing climate-smart practices?
- ▶ Are climate-smart practices a condition necessary to sell your crop/livestock? If so, is there a discount that must be considered for non-compliance?
- ▶ How will you get paid for participating in a carbon program (e.g., amount, structure, and timing)?
- ▶ Are there multiple markets to sell your crop/livestock if required to implement climate-smart practices by one of your typical markets?
 - If you must sell in a different market, what are the additional costs (e.g., additional transportation costs)?
- ▶ Can you source the necessary inputs (e.g., seed, machinery, fencing, etc.) to implement climate-smart practices?

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- ▶ Do you have the technology and skills required to provide the necessary data that proves you are implementing climate-smart practices?
- ▶ Is forming a co-op an option in your area?

Legal Risks

- ▶ What type of written document are you dealing with? Is it a contract or merely a term sheet?
- ▶ Have you identified a lawyer in your jurisdiction with experience reviewing carbon contracts?
- ▶ Do other people (i.e., a landlord, a tenant) have an interest in the land for which you are considering a carbon contract?
- ▶ Are there any unclear or ambiguous terms in the contract or term sheet?
- ▶ Is every verbal promise included in the written contract or term sheet?
- ▶ Under what situations can the company terminate the contract, and what, if any, penalties to the company or payments to you would result?
- ▶ What situations could result in a breach of contract, and what penalties could result from the breach?
 - Does the contract require a set amount of additional carbon to be sequestered, and if so, could drought/fire/flooding make this impossible?
 - Does the contract require the producer/landowner to repay the company's expenses in the event of a breach?
- ▶ What result would the sale of land have on the contract?
- ▶ Does the contract offer any liability protection for the producer should someone be injured on the property or should there be claims challenging the production practices?
- ▶ Does the contract prevent you from enrolling in other types of programs or sales contracts?
 - Examples include government programs (EQIP), other offsetting contracts, and carbon inset market.
- ▶ Does the contract address ownership of other ecosystem services credits, like water quality credits or soil nutrient credits?



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