Marketing Transitional Grains

A Decision Case Study

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"Marketing is one of the most difficult parts of any farming system" says Jay Peterson, a transitioning farmer. Peterson believed that he could make more money growing organic grain than continuing to produce conventionally. But the three-year transition period, when growers cannot sell their crops on the certified organic market and do not receive the price premium, serves as a significant barrier to growers considering transitioning. This, with almost assured lower yields and increased weed pressure, leave Jay Peterson uncertain about certified organic production.

ay Peterson currently works full-time managing an electrical contracting business while farming 230 acres of family land that he rents from his mother. The Peterson land is owned by Jay's mother but eventually will be passed on through an estate that includes Jay and his five sisters. Jay's sisters do not have an interest in farming. Therefore, Jay's goal is to accumulate funds and build equity over the next 5-7 years so that he qualifies financially to purchase the farm.

Jay farms 230 acres of prime cropland that has been in his family for three generations. "I've been helping to farm this land since I was a little boy," says Jay. He currently rents the land from his mother and manages it using a conventional corn-soybean rotation on most fields just like his dad used to do. However, Jay's also doing a few things differently: investing in cover crops, using seed that is not genetically modified (GMO), and forward-contracting his crops to manage risk. He's also giving organic farming a try on 34 acres and may transition the whole farm if he can generate a profit doing so. After doing a financial analysis, Jay is convinced that he could turn a good profit by managing all of the land organically. A four year income projection suggests Jay would net \$443 per acre each year with a diverse organic rotation that includes corn, soybeans, wheat and alfalfa compared to \$107 per acre annually over the same period when managing a conventional 50-50 corn-soybean rotation (see EXHIBIT A. Peterson Example, Net Returns for Conventional vs. Organic Rotation).

The organic rotation would generate more income thanks in large part to price premiums that are paid for organic crops. Organic grain and livestock products are in strong demand in the United States. In fact, demand has well outpaced supply, leading to price premiums for organic corn, soybeans, wheat and oats that are 2-3 times that of conventional commodities (*see EXHIBIT B: Commodity Prices*).

So why the concern about profitability? Jay knows the farm will make money once certified organic. However, it's the transition period that troubles him. Jay earns approximately \$107/acre annually with a conventional corn/soybean rotation. With the same rotation and a mix of transitional premiums (food-grade soybeans) and conventional prices (feed grade corn), Jay would expect to lose \$86/acre or more during transition (see EXHIBIT C. Peterson Example, Net Returns for Transitional Rotation.)

"Farming under transition is difficult because you are still in the same game as everyone else [who farms conventionally] but with reduced yields," Jay explains saying that his soybean yields dropped 32 percent on the half of his transitional land due to wet conditions, weed pressure and three hail storms. "You need premiums to make up for yield losses," says Jay, also explaining that crop insurance for transitioning crops is not a viable financial safety net at this point in time.

Farmers regularly experience yield drops during transition while building soil fertility naturally through the use of crop rotations, green manures, cover crops, and other methods. Additionally, there is a learning curve associated with managing weeds and pests without the use of chemicals. Some farmers can risk income losses during the transition years because they make up for them once they are certified. It's common for farmers to take out a loan during transition to help pay for operating expenses and cover any yield-related losses. Jay has an operating loan but his goal is to make the farm financially sustainable during transition and beyond. Equally important is the short time horizon during which Jay is looking to build equity so that he can purchase the family farm. He can't afford any "loss years." Instead, Jay's plan is to make up for transition-related yield losses by marketing his transitional, non-GMO grain for a premium in "identity preserved" markets.

"Identity Preserved" Crops

Some farmers compensate for lower yields by selling their transitional crops in identity preserved markets that offer a premium for specialty, high value or niche market grains. Farmers have traditionally been paid a premium for the additional risk and management associated with growing and handling identity preserved crops since they must be segregated during storage and delivery.

Identity preserved sales often are arranged by farmers in advance of harvest using what is called a "forward contract." A forward contract is a legally binding written commitment to deliver a specified volume (or harvest from a defined number of acres) at a specified price. The delivery date, however, is set for some time in the future which may occur at harvest or later.

All farmers grapple with marketing issues, but the limited transitional contracts makes this task even more difficult. There exists a ready market for conventional grains; farmers always have the option of selling crops straight out of their fields to a local elevator in what is called the "spot" or "cash" market. This is not an option for identity preserved producers. Most grain elevators do not handle identity preserved grains and oilseeds, buyers are difficult to identify, and price reporting for organic and other identity preserved commodities is sparse.

Jay has used forward contracts and has ample storage on farm if needed. However, he's having trouble identifying specialty crop buyers who offer premiums for some of the crops he's planning to grow during transition and he doesn't always know when to lock in a contract price (i.e. knowing what price the market will bear). "Price is a moving target [in the transitional and organic sectors]," says Jay. By comparison, the conventional market is fully transparent with commodity prices published daily by the USDA Agricultural Marketing Service and buyers available at every local grain elevator. Please visit organictransitions.umn.edu for our module on organic marketing.

Like other farmers, Jay has seen his yields drop substantially during the transition of his first 34 acres due to a variety of factors. If he transitions the rest of his acreage, it might be impossible to make a profit for those three years. If Jay can't find a way to make it work financially, he's unlikely to convert the remaining 196 acres to organic management. Jay is now convinced that he will need to secure price premiums for his transitional crops if he's going to financially survive the three-year transition period from conventional to organic management. Currently Jay markets his transitional foodgrade soybeans as identity preserved using a forward contract with a buyer willing to pay a 40% premium above conventional prices. He receives this premium because the soybeans are grown with non-GMO seed. "I earned \$4.85/bu above the conventional price for my soybeans in 2016," says Jay. That translates into \$90/acre net income on transitional ground. Marketing transitional corn, however, is proving more complicated than Jay expected. Jay has not been able to connect with any buyers offering identity preserved crop contracts or premiums for transitional corn. He could sell the corn conventionally, but doing so could cost him \$155/acre.

Alternative Marketing Strategies

There is no obvious silver bullet to solve Jay's marketing problem. However, he is considering one or a combination of the following marketing strategies to secure a better price for his crops during transition: 1) altering his crop rotation to include a second year of soybeans; 2) exploring contracts for "Certified Transitional" or non-GMO products; 3) joining a marketing organization or hiring a broker to secure better paying contracts for all crops; and/or 4) making better use of onfarm storage.

Alter crop rotation to include a second year of soybeans. Jay might consider altering his transition rotation to include a second year of soybeans on a portion of his land if there continues to be a strong market and premiums for transitional and/or non-GMO soybeans. National Organic Program rules require farmers to rotate their annual crops every year once certified, but this particular rule does not apply during transition. Assuming he is able to secure the same transitional, non-GMO soybeans contract price as he did in 2016, Jay would only need to grow soybeans two years in a row on 30 percent of his land to break even. Jay will not be able to apply synthetic pesticides during transition and would likely experience pest pressure when growing soybeans two years in a row so he'll want to carefully consider whether or not to plant more soybeans.

Explore contracts for "Certified Transitional" or Non-GMO Products. New markets are developing for transitional crops as manufacturers and end users grow markets for foods made with transitional grains, oilseeds, and other farm products. The "Certified Transitional" program, administered by organic certifying agencies and overseen by the USDA, certify operations as transitioning to organic after one year of transition. Most buyers of "Certified Transitional" crops are looking for food-grade products, although markets for feed-grade non-GMO grains are growing.

Join a marketing organization or hiring a broker. "I listen to the [commodity] markets every morning," says Jay. "But I don't always have the time to respond when I should [to a price movement]." Marketing agents (brokers and cooperative organizations) make it their job to watch the markets and establish relationships with buyers. Many brokers and marketing agencies, such as the Organic Farmers Agency for Relationship Marketing (OFARM), specialize in negotiating sales contracts for organic and transitional grain (see EXHIBIT D: OFARM Producer Benefits).

A broker or group like OFARM is often the simplest way to market a specialty crop, such as transitional feed corn, but the broker does take a fee, usually 5 percent of the sale price for his/her services and marketing agencies usually charge a membership fee.

Making better use of storage. Field crops such as grains and oilseeds can be stored for years if moisture, temperature, and pests are properly controlled. Farmers who store their grain after harvest have the flexibility to market the grain anytime throughout the year when prices improve. Market prices are typically lowest at the beginning of the marketing year - June 1 for corn and September 1 for soybeans. Prices generally increase prior to the new crop harvest to compensate for storage costs and management. Prices vary throughout the marketing year depending on the anticipated yield, reported stocks, and worldwide growing conditions.

Jay has multiple on-farm storage bins totaling 40,000 bushels (enough for an entire year's harvest of corn). This is a valuable investment that he can use to his advantage. Jay can hold several crops or store conventional, transitional, and organic grain independently to take advantage of varying market prices. Jay can only afford to store his grain for so long, however, as his bills for input supplies are usually due in January every year. He has 500 bushels of soybeans in one bin and will need to sell this before his bills come due.

At the time of spring planting in 2017, Jay is still uncertain about going 100% organic. Conventional market prices are well below Jay's breakeven (once accounting for anticipated transitional yield drops). If he decides to transition, Jay will need to be creative when marketing to make up for lower yields and preserve his existing equity for a future down payment on the family farm.

Which market should Jay target? Should he rely only on soybeans during the transition period, and forego the benefits of crop rotation because he already has an established market for transitioning soybeans? Which marketing option would you suggest to Jay for the transition period?



Exhibit A. Peterson Example, Net Returns for Conventional vs. Organic Rotation

	Field 1 115 Acres	Net Return Per Acre ¹	Field 2 115 Acres	Net Return Per Acre ¹	Net Return per Year	Net Return per Acre
Year 1	Corn	\$47	Soybeans	\$166	\$24,495	\$107
Year 2	Soybeans	\$166	Corn	\$47	\$24,495	\$107
Year 3	Corn	\$47	Soybeans	\$166	\$24,495	\$107
Year 4	Soybeans	\$166	Corn	\$47	\$24,495	\$107
Annual Average	_	_	_	_	\$24,495	\$107

Current Conventional 4-Year Rotation, 230 Acres

¹Net Return = [(yield*price)-(direct + overhead costs)]. Calculated using Peterson's reported yields and commodity prices. Direct and overhead expenses for each crop enterprise come from averages reported by farmers in 2015 for the Farm Business Management Program, FINBIN database, <u>https://www.cffm.umn.edu.</u> Acreage allocation is theoretical and does not reflect actual field sizes.

Proposed Organic 4-Year Rotation (Post-Transition), 230 Acres

	Field 1 115 Acres	Net Return per Acre	Field 2 115 Acres	Net Return per Acre	Net Return per Year	Net Return per Acre
Year 1	Corn	\$1,077	Soybeans	\$351	\$164,220	\$714
Year 2	Soybeans	\$351	Wheat w/alfalfa ²	\$163	\$59,110	\$257
Year 3	Wheat w/alfalfa ²	\$163	Alfalfa	\$182	\$39,675	\$173
Year 4	Alfalfa	\$182	Corn	\$1,077	\$144,785	\$630
Annual Average	_	-	_	-	\$101,948	\$443

¹ Net Return = [(yield*price)-(direct + overhead costs)]. Calculated using average yields, prices and expenses reported by farmers in 2015 for the Farm Business Management Program, FINBIN database, <u>http://cffm.umn.edu/finbin</u>. Acreage allocation is theoretical and does not reflect actual field sizes.

² Wheat under-seeded with alfalfa. Alfalfa seed expenses attributed to alfalfa crop.

Exhibit B. Commodity Prices

Commodity Prices, 2013-2015 Average

Сгор	Conventional	Transitional	Organic
	\$/bushel		
Corn	3.84	3.88	10.59
Soybeans	10.14	9.66	24.25
Rye	6.27	_	9.05
Spring Wheat	5.57	_	17.23 ²
Oats	2.96	_	6.70
Hay, Alfalfa	154.94	189.32	172.69
Blue Corn	_	_	16.55

Source: FINBIN Database, Center for Farm Financial Management, www.finbin.umn.edu. Includes prices from farms in Illinois, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin

	Field 1 50% Corn	Field 2 50% Soybeans ¹	Annual Average
Acres	115	115	230
Yield ²	150	34	
Price ³	\$3.75	\$14.40	
Gross income	\$64,688	\$56,304	\$120,992
Average gross income per acre	\$563	\$490	\$526
Average expenses (breakeven) per acre ⁴	\$718	\$400	\$612
Average net income per acre	(\$155)	\$90	(\$86)

Exhibit C. Peterson Example, Net Returns for Transitional Rotation

¹ Food-grade soybeans

² Peterson's reported yields for 2016.

³ Peterson's reported prices received for his grains in 2016.

⁴ Average direct and overhead expenses reported by transitioning farmers in Minnesota for the 2015 Farm Business Management program, FINBIN database, <u>http://cffm.umn.edu/finbin</u>

Exhibit D. OFARM Producer Benefits

Mission Statement

"To coordinate the efforts of producer marketing groups to benefit and sustain organic producers."



Aims and Objectives

- Strengthen the marketing programs of member organizations.
- Inventory production and manage organic marketing in a responsible manner.
- Exchange pricing and marketing information among member organizations.
- Develop and support communications among organic producers.
- Research, support, and enhance market development.
- Assist producers and consumers in broadening their knowledge of organic marketing concepts.
- Promote public policy, research and education in support of sustainable agriculture.

Member Benefits

- Share reliable price information with other OFARM producer groups.
- Develop reliable inventory information.
- Remain current on markets and market trends.
- Strengthen your position in the market by eliminating one-on-one negotiations with buyers.
- Develop and monitor producer-friendly contracts.
- Develop and monitor a list of sound, creditworthy buyers for OFARM member groups.
- Enhance opportunities to add new crops and agronomic practices to farm rotations.

Teaching Notes:

Case Objectives:

- Learn the difference between conventional, identity preserved, and organic markets for grains.
- Understand the economic risks associated with the three-year transition to organic period.
- Gain an appreciation for the time associated with marketing products in specialty, noncommodity markets.
- Explore the importance of planning ahead to break even during the transition period.

Use of the Case:

This case is developed for use by extension educators, post-secondary instructors, state agency personnel, and others interested in increasing understanding of the organic transition process.

Materials Needed:

- Copies of the decision case study/ies on which to make notes as participants read.
- A laptop and projector to show slides of the farm, the markets, and the farm family. It could also be used to project discussion questions, certification requirements, or other materials of interest.
- A "U" or horseshoe-shaped seating arrangement for maximum participation among participants and the facilitator.

Dealing with Controversy:

Often in the discussion of a decision case study, participants will disagree about certain issues. While this is a mark of an effective case, the facilitator should keep the discussion from becoming argumentative and unproductive. Participants should be reminded that there are many points of view and to keep the discussion atmosphere constructive and nonthreatening. If desired, techniques such as role-playing or role reversal can help participants discuss the issues in a less personal way.

Use the following strategies to facilitate a productive, healthy discussion where controversy may be involved:

- Establish ground rules. These may include: allowing only one person at a time to speak; no one should speak twice before everyone has had a chance to speak once; no criticizing of others' comments, etc.
- Encourage participants to use "I" messages when stating their viewpoint. Avoid using "you" or blaming statements.
- Ask clarifying questions such as, "Why do you think that?" A major communication problem is misunderstanding what was said.
- Ask participants to try to imagine the situation from the other person's point of view. (Roleplaying can also help with this.)
- Encourage participants to focus on what they want in the future or where they would like to go, rather than where they have come from or what has happened in the past.

Lesson Outline:

Discussion of this decision case study can last from 20 to 60 minutes, depending on the degree of preparation by the participants and the desired depth of the discussion. The outline below is one example of the way a facilitator might structure the discussion. In general, a decision case study discussion is a forum where participants talk to each other in addition to the facilitator. The format described here is useful when advanced preparation of the participants is not possible. If desired, the facilitator can include additional information on local crop production and social issues to enhance discussion and create a broader understanding of those topics.

- Introduction
- Facilitator introduces the case study and describes the goals and approach to be used
- Focus on a real situation
- Practice problem solving
- No single right answer each person and situation is unique
- The Decision Case Study
- Facilitator introduces the decision case study.
- Participants read or reread the narrative of the decision case study
- Facilitator divides the participants into small groups of 2-4 people and asks them to discuss questions.
- Participants return to large group and share key points of their discussion
- Facilitator guides a group discussion on the remaining questions
- Conclusion
- Group members may select a preferred option or facilitator may have participants write individually and describe their decision in response to the dilemma and the rational for the response
- Closing comments

Discussion Questions:

Below are examples of the kinds of questions the decision case study facilitator can use to stimulate discussion of the issues in this case. Participants may discuss some of these questions in groups of two to four and some questions as a large group. The questions used can vary depending on your time limit and the issues you wish to discuss. Other questions may be added as needed and appropriate to the situation.

1. What are the advantages and disadvantages to selling transitional grains on the conventional market (without a price premium)?

2. What are the advantages and disadvantages to using a broker or marketing group to sell grains?

3. How much negotiating power do the Kerkaerts have when renting land as an organic farmer?

4. How might labor needs change for Jay, in terms of marketing, as he transitions more and more acreage to certified organic? What about the time spent on obtaining the "Certified Transitional" label? Do you think pursuing that label is worth his time?

5. How should growers balance marketing considerations with rotational considerations when planning organic crop rotations? (Think about the decision Jay is facing regarding marketing soybeans vs. corn during the transition period).

6. Should there be more programs and/or organizations to support growers during the transition period? If so, what should these programs do in terms of marketing? Should they be public or private?

7. What would you suggest Jay do if he is unable to secure contracts for transitional grains that pay a price premium?



The following resolution to the case study, along with an analysis, is offered for the benefit of the instructor in preparing for leading a discussion of the decision case study. The information it contains and the final resolution of the decision case study may or may not be disclosed to discussion participants, at the instructor's discretion. Should the resolution be shared with participants after the discussion takes place, the authors suggest debriefing the epilogue and final decision with the students.

Epilogue:

Jay decided to "go all in" in the spring of 2017, transitioning all of his acreage using the 50/50 corn/soybean rotation that he is locked into under the EQIP contract. "I'm tired of the split management," says Jay. "I'm tired of having to manage differently, separate the crops for storage and spray some of the fields." After the 2017 harvest, Jay will be free to adjust his rotation, and that is just what he plans to do. "I may plant more soybeans and will likely introduce cereal rye," says Jay.

In the meantime, during the winter of 2017, Jay attended the Midwest's largest organic trade convention. "None of the buyers were signing forward contracts for transitional or even organic corn," says Jay. Jay also contacted a broker and was told something similar - no one was buying transitional or non-GMO corn on contract. "They told me to wait until summer and maybe something [a contract] would open up," says Jay. "My other option is to wait until harvest to price my corn on the [conventional] cash market."

Instead, Jay says he's committed to "finding my own markets." He's been in touch with a local cooperative that offers transitional and organic feed mixes. Jay's also in conversation with several local hog and turkey producers who purchase non-GMO feed. "I think the outlook is promising - I am hoping to build long-term relationships with local buyers who will take my transitional and organic crops at a premium."