

Cash Flow Crunch

A Decision Case Study

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Nate and Angie Walter began transitioning their 240-acre farm and 100-cow milking herd to organic management two years ago. The Walters grazed their animals outside year-round and raised an additional two-thirds of needed supplemental feed. However, during the third and final year of the transition period, organic feed prices skyrocketed. The Walters' calculations showed that feed costs would soon exceed revenues, and cash flow into the farm would be negative. The Walters needed to decide whether to reduce their herd size or give up on organic certification altogether.

Nate and Angie Walter began transitioning their 240-acre farm and 100-cow milking herd to organic management two years ago. Prior to transition, the Walters “were always doing 85% of the organic work and just not getting paid for it,” says Angie. “We weren’t typical conventional farmers before transition.”

Nate grew up on the dairy farm that he and Angie now manage. Nate and Angie purchased the Walter family farm in 2002 at full market value from Nate’s father: 160 acres of pasture/cropland, 80 cows, 80 young stock, equipment, and buildings. They gradually added another 20 cows and 80 acres of land. All purchases were financed with a long-term “Farm Ownership Loan” guaranteed by the Farm Service Agency (FSA) (see EXHIBIT A: *Farm Loans*).

After researching organic production for several years, Nate and Angie decided to transition their farm in October 2010. “We decided to switch after meeting with our Farm Business Management instructor,” recalls Nate. “He showed us numbers and said

that the farm would have grossed another \$180,000 [in 2009] if we’d been organic.” The Walters began transitioning their land in spring 2011 and their cows in the fall of 2012 so that their land and animals could be certified together in October 2013.

The Walters raised all of their own replacements (two-year-old female cows raised on the farm from birth to replace older, non-productive milk cows). They developed their own three-way cross of Norwegian Red-Guernsey-Red Holstein cows to achieve genetics that they believe are better suited to organic management (e.g., good at converting grass to milk and living year round outside).

Nate grew the feed, managed pastures, and performed the milking, while Angie handled calf feeding and helped out with other chores. The Walters ran a six-year rotation that included two years of corn and four years of alfalfa hay. Their management strategy was to raise all forage and the majority of needed grain on the farm for their 100-cow herd.

The Walters fed all the corn that they produced, supplying approximately 60 percent of the herd's energy ration. They had to purchase additional needed grain and straw. This meant that while transitioning the herd, the Walters would have to buy 40% of their organic feed for the dairy herd at premium prices while selling their milk at conventional prices (see *EXHIBIT B: Organic Livestock Requirements*).

Uncertainty and Volatility in the Organic Market

The Walters anticipated that they would need to purchase 3,000 bushels of certified organic corn, 2,000 bushels of organic field peas/barley to supplement the feed they raised on the farm. In addition, the Walters planned to purchase 200 bales of certified organic straw.

Nate says they were “nervous” about having to buy organic feed during transition, echoing the concerns of many transitioning farmers. “We [got] a slight transition premium for milk [from Organic Valley] during our third year [of transition] but it [wasn't] enough to compensate for the [higher organic] feed prices.” The Walters found they couldn't afford to purchase the needed organic feed and straw. At 2012 prices, the Walters estimated they'd need approximately \$61,000 to purchase the required organic feed and bedding.

The Walter's cash flow crunch wasn't the result of poor planning. Organic grain prices are considered very volatile due to relatively low trading volumes and lack of price transparency (publicly reported prices). When

the Walters began transition, organic corn prices were \$7.04/bu, according to Farm Business Management (FBM) annual financial reports. By the time they were ready to transition the herd, organic corn prices had jumped 98 percent to \$13.91/bu while conventional milk prices had only grown by 19 percent from \$16.27/cwt to \$19.42/cwt (see *Exhibit C: Organic Corn and Milk Prices*). The Walters were being squeezed; their projected cash flow was negative (they wouldn't have enough income to cover their expenses). They knew that the dairy enterprise would turn a good profit once they became certified organic (see example comparing conventional to organic dairy enterprise returns in *EXHIBIT E: Dairy Enterprise Analysis: 2010-2012*). Net returns per cow (profit) on conventionally-managed Minnesota dairy farms averaged \$342.35 in 2010-2012. By comparison, net returns per cow on organically managed Minnesota dairy farms averaged \$669.36 (after accounting for higher feed costs). The Walters idea of going organic was a good one, however, they weren't sure they could financially survive the transition.

As a solution, the Walters considered a short-term operating loan to help pay for feed expenses but were hesitant to take on more debt (in addition to their existing term-debt acquired when purchasing the farm). They prepared a business plan and ran some numbers. Initial calculations suggested that they wouldn't be able to cover any additional debt payments at conventional lending rates, again due to cash flow constraints. They had to choose between continued organic management and additional debt, and abandoning their dreams of organic farming. What should the Walters do?

Exhibit A.



UNITED STATES DEPARTMENT OF AGRICULTURE
FARM SERVICE AGENCY

FARM LOANS

2014 FARM BILL
FACT SHEET

October 2016

Farm Loan Information Chart

The following chart summarizes FSA farm loan information. Additional details are available at local FSA offices and on FSA's website: www.fsa.usda.gov.

Program	Maximum Loan Amount	Rates and Terms	Use of Proceeds
Direct Farm Ownership (FO)	\$300,000	<ul style="list-style-type: none"> Rate based on agency borrowing costs Term up to 40 years 	<ul style="list-style-type: none"> Purchase farm Construct buildings or other capital improvements Soil and water conservation Pay closing costs
Direct Farm Ownership (FO) Participation	\$300,000	<ul style="list-style-type: none"> Rate is direct FO rate less 2% with a floor of 2.5% if at least 50% of loan amount provided by other lender Term up to 40 years 	Same as direct FO
Direct Farm Ownership Microloan (FO ML)	\$50,000	<ul style="list-style-type: none"> Rate based on agency borrowing costs Term up to 25 years 	<ul style="list-style-type: none"> Purchase farm Construct buildings or other capital improvements Soil and water conservation Pay closing costs
Direct Down Payment Farm Ownership Program	The lesser of 45% of: <ul style="list-style-type: none"> the purchase price; the appraised value; or \$667,000 (not to exceed \$300,000) 	<ul style="list-style-type: none"> Rate is direct FO rate less 4% with a floor of 1.5% Term of 20 years Down payment of at least 5% 	Purchase of farm by a beginning or underserved farmer
Direct Operating (OL)	\$300,000	<ul style="list-style-type: none"> Rate based on agency borrowing cost Term from 1 to 7 years 	<ul style="list-style-type: none"> Purchase livestock, poultry, equipment, feed, seed, farm chemicals and supplies Soil and water conservation Refinance debts with certain limitations
Direct Operating Microloan (ML)	\$50,000	Same as direct OL	Same as direct OL
Direct Emergency	100% actual or physical losses \$500,000 maximum program indebtedness	<ul style="list-style-type: none"> Rate is based on the OL rate plus 1%; with a cap of 3.75% Term from 1 to 7 years for non-real estate purposes Term up to 40 years for physical losses on real estate 	<ul style="list-style-type: none"> Restore or replace essential property Pay all or part of production costs associated with the disaster year Pay essential family living expenses Reorganize the farming operation Refinance debts with certain limitations
EZ Guarantee	\$100,000	Same as Guaranteed Operating or Guaranteed Farm Ownership	Same as Guaranteed Operating or Guaranteed Farm Ownership
Guaranteed Operating	\$1,399,000 (Amount adjusted annually for inflation)	<ul style="list-style-type: none"> Rate determined by the lender Term from 1 to 7 years Loan guarantee fee is 1.5% 	Same as direct OL
Guaranteed Farm Ownership	\$1,399,000 (Amount adjusted annually for inflation)	<ul style="list-style-type: none"> Rate determined by the lender Term up to 40 years Loan guarantee fee is 1.5% 	Same as direct FO except loan may be used to refinance debts
Guaranteed Conservation Loan (CL)	\$1,399,000 (Amount adjusted annually for inflation)	<ul style="list-style-type: none"> Rate determined by the lender Term not to exceed 30 years, or shorter period, based on the life of the security Loan guarantee fee is 1.5% Eligibility requirements expanded to include large and financially strong operations 	<ul style="list-style-type: none"> Implement any conservation practice in an NRCS-approved conservation plan May be used to refinance debts related to implementing an NRCS-approved conservation plan
Land Contract (LC) Guarantee	The purchase price of the farm cannot exceed the lesser of: <ul style="list-style-type: none"> \$500,000; or The current market value of property 	<ul style="list-style-type: none"> Rate cannot exceed the direct FO interest rate plus 3% Amortized over a minimum of 20 years with no balloon payments during the first 10 years of loan Down payment of at least 5% 	<ul style="list-style-type: none"> Sell real estate through a land contract to a beginning or underserved farmer Guarantee is with the seller of the real estate

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Exhibit B. Organic Livestock Requirements



ORGANIC LIVESTOCK REQUIREMENTS



Organic certification verifies that livestock are raised according to the USDA organic regulations throughout their lives. www.ams.usda.gov/organicinfo

Like other organic products, organic livestock must be:

- Produced without genetic engineering, ionizing radiation, or sewage sludge.
- Managed in a manner that conserves natural resources and biodiversity.
- Raised per the National List of Allowed and Prohibited Substances (National List).
- Overseen by a USDA National Organic Program-authorized certifying agent, meeting all USDA organic regulations.

- Fed 100 percent certified organic feed, except for trace minerals and vitamins used to meet the animal's nutritional requirements.
- Managed without antibiotics, added growth hormones, mammalian or avian byproducts, or other prohibited feed ingredients (e.g., urea, manure, or arsenic compounds).

To determine if a farm complies with the USDA organic regulations, certifying agents review the farm's written organic system plan and on-site inspection findings.

Which substances can be used to prevent and treat diseases in organic livestock?

Prevention. Since organic farmers can't routinely use drugs to prevent diseases and parasites, they mostly use animal selection and management practices. Only a few drugs, such as vaccines, are allowed.

Treatment. Pain medication and dewormers (for dairy and breeder stock) are examples of allowed animal drugs. These therapies are only allowed if preventive strategies fail and the animal becomes ill.
Approved synthetics: <http://bit.ly/livestock-synthetics>

If approved interventions fail, the animal must still be given all appropriate treatment(s). However, once an animal is treated with a prohibited substance (e.g., antibiotics), the animal and/or its products must not be sold as organic post-treatment.

ORGANIC LIVESTOCK STANDARDS

Farmers and ranchers must accommodate the health and natural behavior of their animals year-round. For example, organic livestock must be:

- Generally, managed organically from the last third of gestation (mammals) or second day of life (poultry).
- Allowed year-round access to the outdoors except under specific conditions (e.g., inclement weather).
- Raised on certified organic land meeting all organic crop production standards.
- Raised per animal health and welfare standards.

USDA National Organic Program | Agricultural Marketing Service

July 2013



Exhibit B, cont'd



ORGANIC LIVESTOCK REQUIREMENTS (continued)



How do the organic standards support animal welfare?

Organic livestock must be raised in a way that accommodates their health and natural behavior:

- Access to the outdoors
- Space for exercise
- Shade
- Fresh air
- Clean, dry bedding
- Clean drinking water
- Shelter
- Direct sunlight

Organic management reduces stress, reducing the incidence of diseases and supporting animal welfare.

RUMINANT PASTURE STANDARDS

Organic ruminant livestock—such as cattle, sheep, and goats—must have free access to certified organic pasture for the entire grazing season. This period is specific to the farm's geographic climate, but must be at least 120 days. Due to weather, season, or climate, the grazing season may or may not be continuous.

Organic ruminants' diets must contain at least 30 percent dry matter (on average) from certified organic pasture. Dry matter intake (DMI) is the amount of feed an animal consumes per day on a moisture-free basis. The rest of its diet must also be certified organic, including hay, grain, and other agricultural products.

After an animal reaches the 120-day grazing minimum, does that mean it no longer needs to be on pasture?

No. Ruminant livestock must graze on certified organic pasture throughout the entire grazing season for the geographic region. Depending on region-specific

environmental conditions (e.g., rainfall), the grazing season will range from 120 to 365 days per year.

Per the USDA organic regulations, the grazing season is the period of time when pasture is available for grazing due to natural precipitation or irrigation.

Outside the grazing season, ruminants must have free access to the outdoors year-round except under specified conditions (e.g. inclement weather). Ruminant slaughter stock are exempt from the 30 percent DMI from pasture requirement for the last fifth of their lives (up to 120 days).

To access worksheets on calculating DMI from pasture, visit www.ams.usda.gov/NOPProgramHandbook.

BENEFITS: ORGANIC MANAGEMENT

Organic livestock production and pasture-based systems provide many benefits:

Environment. Organic farmers and ranchers use practices that minimize impacts to the off-farm environment. They implement plans to avoid manure runoff, instead using manure as fertilizer or composting it to conserve nutrients. Additionally, farmers use sustainable practices such as crop rotation and cover crops to maintain soil fertility and protect soil and water quality.

Animal Health. Pasture-based diets improve ruminants' digestive health, making the rumen (first stomach) less acidic. This lower acidity increases the number of beneficial microorganisms that help ferment ruminants' high-fiber diet. Pasture-based systems have been shown to reduce hock lesions and other lameness, mastitis, veterinary expenses, and cull rates.

For a detailed guide on organic livestock production, visit <http://bit.ly/organic-livestock-guide>.

Exhibit C. Organic Corn and Milk Prices**Corn Prices: 2010 – 2012**

	2010	2011	2012	Average
Corn (\$/bu)	4.59	5.71	6.50	5.61
Organic corn (\$/bu)	7.04	10.53	13.91	10.47

Milk Prices: 2010 – 2012

	2010	2011	2012	Average
Milk (\$/cwt)	16.27	20.08	19.42	18.71
Organic milk (\$/cwt)	25.91	26.85	29.28	27.46

Source: FINBIN Database, Center for Farm Financial Management (www.finbin.umn.edu)

Exhibit D. Dairy Enterprise Analysis: 2010 – 2012 Average

	Conventional	Organic
Number of cows	169	70
Milk produced per cow (lbs)	22,417	13,678
Feed cost per cow (\$)	2,037.87	1,694.38
Feed cost per cwt (\$)	9.09	12.39
Total direct expenses per cow (\$)	3,057.79	2,402.41
Total direct expenses per cwt (\$)	13.64	17.56
Total overhead expenses per cow (\$)*	572.32	499.90
Total overhead expenses per cwt (\$)*	2.55	3.66
Average milk price (\$/cwt)	18.55	27.46
Net return per cow	342.35	669.36

* Includes interest on debt but not principle payments

Source: FINBIN Database, Center for Farm Financial Management (www.finbin.umn.edu)

Teaching Notes:

Case Objectives:

- Understand organic grain and feed prices and market volatility.
- Consider the unique problems faced by growers who are concurrently managing transitioning livestock and cropland
- Understand how farm cash flow, assets, and debt affect the bottom line of organic farms

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. (Role-playing 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 rationale 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. Could the Walters have done anything differently to avoid purchasing expensive organic feed during the transition period (e.g., transitioned fewer cows, etc.)?
2. What resources did the Walters have to finance organic feed needs?
3. What inherent risks do the Walters face by borrowing money to pay for organic feed?
4. Why is the organic feed market so volatile? How does the price premium affect farmers when certified, versus when they are in the transition period?
5. What particular issues are faced by transitioning dairy farmers, compared to row crop operations? Compared to livestock-only producers?
6. Should there be any public or private programs to support growers transitioning both livestock and cropland to certified organic production? What services should those programs offer? How should they be financed?
7. Would you have made the same choices as the Walters when transitioning? Given the choices they made, what would you advise?



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:

The Walters obtained an operating loan from the Farm Service Agency (FSA) to help finance the cost of feed during transition. The terms of their loan allow them to defer payment for one year which means they won't have to begin making loan payments until after they are certified (and making more money from the sale of certified organic milk).

The Walters had an established relationship with their lender at FSA that allowed them to obtain a lower interest rate and deferred payments as part of their operating loan (See *Exhibit A, "Farm Service Agency Loan Programs."*)

With help from their Farm Business Management instructor, the Walters

prepared a projected cash flow plan, projected profitability plan, and projected balance sheet and updated their business plan to share with their lender when applying for the new operating loan. These statements gave the lender confidence that the Walters had a good plan and that they would be able to repay their loan once certified organic.

According to the Walter's business plan, once certified they will be able to "comfortably repay loans" used to finance feed purchases. The Walters have renewed hopes that organic farming will allow them to maintain a smaller family farm, one that they can proudly pass on to the next generation.

