Decision Case Number 2

To Add Cows or Not to Add Cows….That *WAS* the Question
Sulco Farm
A Holistic Management® Decision Case

1. Andy Sulco grew up on the dairy farm he inherited from his parents and now manages. The farm is located in rural New Hampshire and comprises some 94 acres, of which 53 are tillable. Andy milks 53 Holsteins, produces all of his hay and corn silage, and does most of the chores himself. He employs part-time labor, at least as long as they stay. Not able to pay high wages or offer full time work with benefits, turnover has plagued Andy's ability to keep good help.
2. Andy has a wife and son, both of whom are not especially supportive of Andy's farming venture. They share a common resentment that all of Andy's time and energy goes to the farm and little is left over to meet their needs. Additionally, the price of milk has dropped this past year, resulting in economic stress on the family. Andy's wife has an off-farm career and effectively is the financial supporter of the family. This too causes tension at home.
3. Andy is a rather private person, typical of most "Yankee" farmers. He rarely complains or talks about personal or emotional issues with anyone except his closest friends. As such he keeps most emotional issues bottled up inside. Recently this has resulted in some bouts with depression and the start of an ulcer.
4. One morning Andy left his house for the barn after a heated exchange with his wife. She was upset that Andy was not addressing any family issues, including their son's academic struggles. At the barn Andy ran into his local county Extension agent, Steve, who randomly stopped by with the Extension dairy specialist, Jim, as they were making farm visits in the area. The two could see that Andy was upset and inquired about what was wrong.
5. Andy chose not to go into the personal issues and instead spoke about the hard financial times his farm was going through as a result of low milk prices. Jim looked around as Andy was milking and saw that there was space in the barn to add stalls and cows. Soon Andy and Jim were crunching numbers (Exhibit A). They found that if Andy added 10 cows and did not hire any additional labor that his farm could gross another $5,200 per year at these low milk prices, and more when prices rose.
6. After Steve and Jim left, Andy thought about the idea of adding cows, but had an uneasy feeling in his gut. More cows meant more time in the barn which certainly would not help his family situation any, nor help him mentally or physically. Coincidently, Steve too was uncomfortable with the idea and spoke with Jim about it in the car as they were leaving.
7. Steve expressed to Jim that before making recommendations about adding more cows or doing other things, that they should discuss the full situation in more depth with Andy. Jim was not sure what Steve was talking about so Steve elaborated. Steve mentioned that there was no discussion about Andy's life, whether he was happy, how his family was doing, what the impact might be on the environment if he added more cows, or other such considerations.
8. Jim felt that the questions about the family and other personal issues were not their business unless Andy offered these on his own. Likewise, Jim felt that 10 cows would not degrade the environment; after all they had calculated that Andy's manure storage system could han-

dle the output of these cows and that Andy had enough land to apply the additional manure and any waste milk. Steve and Jim agreed to disagree and went on with their other farm visits.

9. A few days later Andy was speaking with close friend Dale, who also farmed down the road. Dale was a diversified organic grower and didn't know a lot about cows or livestock. Yet he had worked with Steve on a process called Holistic Management. He suggested that Andy call Steve and ask about it. Dale explained that his family and farm workers went through the process and it helped get everyone on the same page and also added a lot of creative ideas about alternative enterprises they might add to help make the farm more profitable.
10. Andy called Steve that afternoon and hesitantly asked about this thing called Holistic Management. Andy was not up for some "crunchy granola", hand-holding process in which everyone had to share their feelings or the like. Steve explained to Andy how it worked in general and suggested that it may be just what Andy needed. Steve and Andy talked further and Steve expressed his hesitation about the recommendation Jim gave to simply add more cows. Yes, it would help make the farm more profitable, but at what cost? Was economic profitability truly the answer to all of Andy's problems, or was there more needed?
11. Steve and Andy had a short conversation about what profitability meant to Andy and what Andy wanted out of life. Steve challenged Andy to think about how his life might be if everything in his life remained the same with the exception that the farm made tons of cash. Would Andy be happy, healthy and content? If so, Steve suggested that Andy should simply add the cows, spend some more time milking and doing chores, and reap the additional profits.
12. Andy thought about his conversation with Steve over the next few days and concluded that money alone would not address all of his issues, certainly not in terms of his family situation, nor in terms of his own personal happiness and health. The ulcer was a reminder of that.
13. Reluctantly Andy called Steve and asked if he would help him do that Holistic Management thing. Steve told Andy he needed to approach his wife, son, and farm hand first and see if they were interested. Andy was able to get buy-in from all these folks in short order. His wife wanted to do anything that might improve their family life and their son went along hesitantly. The farm hand was not given a lot of choice, but didn't put up any resistance.
14. Steve came over the following week and facilitated the process. They defined their *whole under management* (Exhibit B) and drafted a *temporary holistic goal* (Exhibit C). Steve also taught the group how to use the testing questions (Exhibit D).
15. After four sessions, the group advanced enough to be able to brainstorm a list of suggestions to garner more farm income. Having a holisticgoal and the ability to test potential options, Andy could filter these ideas using the testing questions to choose alternatives that would not only generate more income, but would also help him move closer towards the life he and his family desire.
16. Andy and his family found that by just going through the process they understood each other so much better. "It was helpful to have you referee," he said to Steve after one meeting. Yet, he greatly appreciated getting his say and having other folks understand where he was coming from, and also he had to admit, finally getting what his wife was talking about. After all he did love her and all.

Given the holisticgoal in Exhibit C, would you add the 10 more cows with no additional labor if you were Andy? What other options might be appropriate for Andy to test?

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Exhibit A
Sulco Farm Partial Budget

Change Being Considered: Adding 10 cows

Added Receipts

10 cows at 20,000 lbs milk/cow/year at $12.59/cwt of milk	$25,000	
5 bull calves at $150/calf	$750	
Total added receipts		**$25,750**

Reduced Costs
None

Reduced Receipts
None

Added Costs

Concentrate feed at $900/cow	$9,000	
Labor (typically $600/cow = $6,000 per year)	$0	
Cropping costs: at $600/cow	$6,000	
Sprays at $45/cow		
Fertilizer and Lime at $115/cow		
Fuel at $135/cow		
Repairs at $250/cow		
Seeds at $55/cow		
Milk hauling at $175/cow	$1,750	
Veterinarian at $165/cow	$1650	
Utilities at $95/cow	$950	
Interest on $20,000 borrowed to purchase cows at $120/cow	$1,200	
Total added costs		$20,550

Change in Profit
Added Receipts + Reduced Costs = $25,750
Reduced Receipts + Added Costs = $20,550
Total Change in Profit **$5,200**

The total change in profit figure assumes no additional labor is hired and that the cows yield 20,000 lbs. of milk per year.
The figures above come from average costs and receipts calculated and used by Farm Credit Agencies.

Exhibit B
Sulco Farm Whole Under Management

Decision Makers

Andy Sulco
Ellen Sulco
Dave Sulco
Pat Willen

Resource Base

Land

- Land Owned by Sulco Farm
  - 94 acres
    - 30 acres corn/hay land
    - 18 acres pasture land
    - 46 acres woodland
- Informal Land Use Agreement
  - 5 acres of pasture land
  - 5 acres of hay land

Livestock

- 53 Holsteins
- 39 heifers
- 3 pigs

Facilities and Structures

- Main Barn and Milk House
  - Comfort stalls
  - Milking pipeline system
  - Storage area for workshop and equipment
- Second Livestock Housing Area (enclosed with 2 – 12 foot openings)
  - Bedded pack
- Center Shed
  - 3 open bays
- Woodshop – 2 levels can hold lumber and tools
- Hay Barn – approximately 90 ft x 30 ft – can hold approximately 7,000 bales
- Sawdust Shed – currently storing bedding and vehicles
- Sulco House
  - 4 bedroom house
- Sulco Household Vehicles
  - Chevy Pickup, Saab, Buick, and Kids wagon

Equipment

- 362 Massey Ferguson Tractor – 1,300 hours
- T035 Massey Ferguson Tractor – old but in good repair

- 65 Massey Ferguson Tractor – old but in good repair
- International S1600 – 3 ton dump truck (6 wheeler)
- Manure spreader
- Back hoe
- Hay mower
- Tedders
- Pin wheel rake
- Sickle bar mower
- Baler – small square bales (~ 45 lbs/ bale)
- Broadcast spreader – 3 point hitch
- Wood splitter
- Portable welder

People Who Influence or Are Influenced By Our Decisions

- Cooperative Extension Agent
- Natural Resources Conservation Service staff
- Our veterinarian
- Fertilizer dealer
- Seed salesman
- DHIA milk tester
- Neighboring farmers
- Friends
- Hay and raw milk customers
- Parents

Skills

- Haying
- Forage production and harvesting
- Milking
- Herd Health and Management
- Breeding
- Child development
- Book keeping/Record keeping/Budgeting
- Farm management
- Computer skills
- Graphic design
- School Teaching
- Educational Programming

Money

Sulco Farm has a farm checking account and a credit line with a farm credit agency. They also have personal checking and savings accounts. Off-farm income supports the family and also partially supports the farm. Our income streams come from milk and hay sales and some limited manure sales to home owners.

Exhibit C
Sulco Farm Temporary Holisticgoal

Quality of Life Statement

We at Sulco Farm want to have a financially profitable operation that allows us to enjoy all the things in our life, not just farm related. We strive to offer a good quality of life for all who work and live on our farm, recognizing that family and recreation are important aspects of everyone's lives. We value relationships with family and friends, and also desire to contribute to our local community and church in meaningful ways. We desire to have limited conflict and to treat all who live and work here with respect.

We want the land and environment to support farming here for many years to come. We enjoy learning new things and improving our farming skills, especially in ways that increase the farm's profit and improve the land.

Forms of Production

To actualize the quality of life listed above, we need to produce time for non-farm related things such as family, recreation, hobbies, and community. We need to implement a communication system where people feel heard and respected. We need to be better listeners and respect each other to reduce conflicts. To preserve the environment, we need to monitor it closely and keep records to see changes that result from our farming practices. We also need to implement good cropping and conservation practices. To be profitable, we need to keep accurate and updated records, and monitor these regularly. We also need to be creative and efficient to be profitable.

Future Resource Base

The land on Sulco Farm will have healthy mineral cycles supported through the addition of amendments and encouraged by cropping and conservation practices. Sulco Farm will enjoy a healthy water cycle, helped by the lack of bare soil and careful monitoring of the ground's surface. We will work to build organic matter and improve the structure and biological activity of our soil. Our cropping practices will capture as much sunlight as possible.

We will be seen as respectful stewards of the land by our community. Those who live on our farm will be viewed as honest and contributing members of our local community and church. We will always be seen as charitable and paying off all debts and obligations.

Our community will have good schools and services, be low in crime and be respectful of agriculture.

Exhibit D
Holistic Management® Testing Questions

Cause and Effect – Does this action address the root cause of the problem?

Weak Link:

Social – Have I/we considered and/or addressed any confusion, anger, or opposition this action could create with people whose support I/we need in the near or distant future?

Biological – Does this action address the weakest stage in the life cycle of this organism?

Financial – Does this action strengthen the weakest link in the chain of production?

Marginal Reaction – (Comparing two or more actions) – Which action provides the greatest return in terms of my/our holisticgoal for the time and money invested?

Gross Profit Analysis

When comparing two or more enterprises: Which enterprises contribute the most to covering the overheads of the business?

Seth Wilner also asks the additional question when analyzing a single enterprise: Does the additional expected revenue exceed the additional expected *variable* costs?

Energy/Money Source and Use

Is the energy or money to be used in this action derived from the most appropriate source in terms of my/our holisticgoal?

Will the way in which the energy or money is used lead toward my/our holisticgoal?

Sustainability – If I/we take this action, will it lead toward the future resource base described in my/our holisticgoal?

Society and Culture – Considering all the questions above and my holisticgoal, how do I/we *feel* about this action in our gut?

Exhibit E
Discussion Questions

Please answer the following questions:

- What is the farmer's dilemma?
- How is profitability initially viewed by the farmer and the specialist?
- How else might profitability be viewed?
- What is the farmer managing his farm towards?
- After forming a holisticgoal, was the partial budget of any use to the farmer?
- What advantages do you think were had by involving the farmer's wife, son and farm hand in the formation of the holisticgoal?
- How might agency personnel interact differently with farmers to be more effective?
- Whatever decision is reached, how could the principles of Holistic Management be used to help ensure success with the issue?

Exhibit F
Sulco Farm Testing of Adding 10 Cows

Cause and Effect – Does this action address the root cause of the problem?

*Andy had two problems: 1) lack of economic profitability, and 2) no time for family and personal needs. The root cause of both problems was lack of human creativity (maximizing his human and natural resources to meet his social, economic, and environmental needs). In terms of addressing the immediate problem of economic profitability, adding 10 cows passes as it adds $5,200 towards covering overhead costs of the farm. However, that action **fails** to address the root cause that is manifesting itself in the problems he is currently facing in that it consumes additional time and energy resulting in less being able to be directed toward family and personal needs and not thinking more strategically to change the situation and address the root cause.*

Weak Link:

Social – Have I/we considered and/or addressed any confusion, anger, or opposition this action could create with people whose support I/we need in the near or distant future?

After asking this question, Andy realized that adding 10 cows would indeed cause anger and opposition on the part of his family as he would have even less time and energy for them. This was a major red flag he needed to consider.

Biological – Does this action address the weakest stage in the life cycle of this organism?

This question was not applicable.

Financial – Does this action strengthen the weakest link in the chain of production?

Andy had a difficult time determining if solar conversion or product conversion was his weak link.

In terms of solar conversion, (harvesting the sun's energy) Andy felt that he could improve his cropping practices and thus potentially gain more corn and hay and also improve the forage quality resulting in greater milk yield.

In terms of product conversion, Andy felt that adding 10 cows would convert his forage to more milk, which was determined to be the weakest link in Andy's chain of production, so it would pass. Likewise he felt he could do a better job in breeding his heifers in a more timely fashion.

In the end Andy concluded that product conversion was the weak link and so adding 10 cows passed this testing question.

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Marginal Reaction – (Comparing two or more actions) – Which action provides the greatest return in terms of my/our holisticgoal for the time and money invested?

Andy compared adding 10 cows to not adding 10 cows as the two actions in this test. He felt that not adding the 10 cows and finding an alternative income generating enterprise would bring him closest towards his holisticgoal.

Gross Profit Analysis

When comparing two or more enterprises: Which enterprises contribute the most to covering the overheads of the business?

When analyzing a single enterprise: Does the additional expected revenue exceed the additional expected *variable* costs?

Exhibit A showed a gross profit analysis and demonstrated that adding 10 cows would generate an additional $5,200 towards overhead costs of the farm.

Energy/Money Source and Use

Is the energy or money to be used in this action derived from the most appropriate source in terms of my/our holisticgoal?

In terms of money, Andy was uncomfortable that he would have to borrow an additional $20,000 to purchase the 10 cows, and also was not sure if he would actually have to borrow more money to cover some of the feed and other variable costs associated with the addition of the cows.

In terms of energy, it would require more fuel to support the cows and so this was not sustainable in Andy's mind either.

Will the way in which the energy or money is used lead toward my/our holisticgoal?

Andy was comfortable with how the money and energy would be used.

Sustainability – If I/we take this action, will it lead toward the future resource base described in my/our holistic goal?

More cows meant more corn and this would not result in the soil surface being covered, it would not improve organic matter content of the soil, nor would it improve soil structure, as equipment tends to compact soils, especially when one is trying to get on the fields early enough to plant the corn in New Hampshire.

Likewise, the required herbicides would not improve the water quality.

Mono-cropping large acres with corn would detract from biodiversity too and probably

not help the mineral cycle any either.

So adding the 10 cows and expanding the current cropping practices would probably not lead Andy toward the future resource base he described in his holisticgoal.

This testing question caused Andy to think about potentially grazing cows and moving to a grass based system.

Society and Culture – Considering all the questions above and my holisticgoal, how do I/we *feel* about this action in our gut?

Andy remembered the uneasy feeling he had in his gut just after Jim had suggested adding 10 cows. He still had that uneasy feeling and decided not to ignore it.

Andy's Decision: Do not add the 10 cows and explore other income generating enterprises.

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To Add Cows or Not to Add Cows..
Teaching Note

This Holistic Management® Decision Case was developed by Seth Wilner, who works for the University of New Hampshire Cooperative Extension as a county agricultural agent.

Overview

*To Add Cows or Not to Add Cows…That **WAS** the Question* describes a farmer's struggle with profitability in today's economy. Prior to using the Holistic Management process, the farmer was boxed into mainstream thinking that offered few options except doing more work for a few extra dollars to help make ends meet. The farm profit was also earned at the expense of the farmer's family, health and his happiness.

This Decision Case challenges participants to explore what true profitability really means. It also challenges participants to explore the concept of sustainability as a triple bottom line consisting of economic, social and environmental factors.

Case Objectives

After participating in this decision case, participants will:

- Form a clearer understanding of what profitability means to them.
- Understand the need for farmers to define what they are managing toward on their farm and in their lives.
- Gain an understanding of the benefits of the Holistic Management® Decision-Making process.
- Discover alternative ways that agency personnel can interact with producers.

Use of the Case

This case was developed for use by agricultural educators when teaching producers and agency staff about Holistic Management. It is intended to facilitate a discussion about what farm profitability really means and to explore the interactions between economics, quality of life, and the environment. Lastly, this decision case challenges participants to examine how they make decisions on their farms or, if they are agency staff, how they communicate and make recommendations to farmers.

Materials Needed

- Copies of the written portion of the Decision Case and Exhibits.
- A room and furniture for groups of 3 to 4 people to work together.
- A flip chart and markers.
- Calculators for each group
- 3 x 5 index cards.

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Lesson Plan

This Decision Case is designed to be used in a 4-hour period with an audience that has at least a general understanding of Holistic Management. This tool is best used with no more than 30 participants. If more are at a session, break the large group into subgroups of no more than 30 people, each with its own facilitator.

- Open with a discussion on what profitability means to the participants. Record their responses on a flip chart. *(20 to 30 minutes)*
- Hand out two index cards and ask participants to write down on one card a description of what they feel constitutes a sustainable farm. *(5 minutes)*
- Have the participants number the card based on where they are seated and put the letter "A" near this number. Ask them to put it aside for later.
- Allow the participants to read the decision case individually. *(10 minutes)*
- After everyone has read the case individually, read the case out loud together by going around the room and each person reads one paragraph. *(10 minutes)*
- Follow with an explanation that the participants should put themselves in the shoes of the people in the decision case so that they can come to a decision for this farm at the end. *(5 minutes)*
- Stress that there is no single correct answer, but that a decision will need to be made at the end of the session. If no consensus is reached in the group, take a vote and record the different opinions.
- Form groups of 3 to 4 people and pass out the Decision Case and Exhibits A,B,C,D, and E to each group. *(5 minutes)*
- Instruct the participants that while in small groups, all participants should be given an opportunity to speak and contribute in a respectful environment.
- Within each group, have one person assigned to read an exhibit or two and sum these up for the group. *(10 minutes)*
- Ask the group to discuss the case and answer the "Discussion Questions". Direct each group that time is built in to take breaks as needed. *(60 minutes)*
- After each small group arrives at their decision, then pass out the example of Andy's decision testing (Exhibit F) and allow group to read and discuss. *(20 minutes)*.

- Have each small group choose a representative to present the decision they reached and give a brief overview of the discussion.

Break – *(10 minutes)*

- Come together as a large group and have each small group representative share their voting tallies and give a brief overview of the discussion. *(5 minutes/group)*

- Discuss the "Discussion Questions" as a large group, with the facilitator using the "Facilitator's Guide to the Discussion Questions" to lead this discussion. *(40 minutes)*

- Ask the participants to write down their description of what constitutes a sustainable farm on an index card now that they have gone through the Decision Case. *(5 minutes)*

- Ask the participants to number the index cards with the same number they used before but place the letter B on this second card. Ask the participants to hand the cards in. *Use the cards to see if there was any change in opinion on what a sustainable farm is.*

- Close with a discussion of how Holistic Management might help producers achieve a sustainable farm. *(20 minutes)*

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Facilitator's Guide to Discussion Questions

The questions below are suggestions to use to generate discussion around the issues of the Decision Case. Ask participants to discuss these questions, or others, in small groups of 3 to 4, followed by a discussion by the entire group.

1. **What is the farmer's dilemma?—**The primary dilemma is how to increase the profitability of the farm while not degrading the quality of life of the farmer and his family. Agency personnel suggested that the farmer add 10 cows as that is what his barn and bulk tank could support, yet the farmer has not shared his personal information with these people, and they did not to ask any personal questions. Neither the farmer nor the agency professional sought to truly explore alternatives either, as the farm has enough resources for a variety of enterprises aside from milk production.

2. **How is profitability initially viewed by the farmer? —**At the onset, both the farmer and the Extension specialist viewed farm profitability in terms of income exceeding expenses. No real discussion was held about profitability including other factors, such as happiness and quality of life.

3. **Aside from economic profitability, what other things might be included in the discussion on profitability? —**As mentioned previously, quality of life for the farmer and the farmer's family, biological capital in terms of organic matter, biodiversity, and "solar dollars."

4. **What is the farmer managing his farm towards? —**The holisticgoal gives insight into this question, illustrating the farmer's values, as well as those of his family. Yet the Extension staff never asked these questions, nor inquired into the quality of life of the farmer.

5. **After forming a holisticgoal, was the partial budget of any use to the farmer? If so how? —**The partial budget (or gross profit analysis) served to shed light on the potential profitability of adding cows. This is important, yet should not be considered in a vacuum. Factors such as the quality of life for the farmer and the environmental impacts of any suggested changes needed to be considered too. Likewise, the farmer would have benefited from consulting with family members and other decision makers. In fact, if the farmer used the testing questions, the partial budget would be but one of the seven questions used to guide the decision-making process.

6. **What advantages do you think were had by involving the farmer's wife, son and farm hand in the formation of the holisticgoal?—**The advantages were that they were able to add their voice, values, and feelings about the life they wanted. The farmer could now use this holisticgoal to take their needs into account as he was making decisions. Likewise, the wife, son and farm hand now knew what the farmer valued and could be supportive of his needs too. It opened up communication and reduced tension and conflict. Likewise, it put in place an infrastructure to realize the quality of life they all sought.

7. **Whatever decision is reached, how could the principles of Holistic Management be used to help ensure success with the issue? —**The feedback loop embedded within the framework asks decision makers to appreciate the complexity of life, nature, and economic forces. As such, it wants the decision maker to assume that after reaching a conclusion, that "they are wrong" in their decision. It then asks the decision maker to identify what the earliest signs were that the action or decision is not successful. It should be noted that this is a very different paradigm than conventional decision making. Conventionally, people assume that after an educated decision has been made, that it is correct. Holistic Management takes a more conservative approach and assumes that the decision is wrong, and asks the decision maker(s) to identify indicators and monitor for these.