Profit in the Field

A Primer on Direct-Market Farm Business Models For Beginning Farmers, Lenders and Investors

Jim Munsch, Deer Run Farm with
Kathleen Toohill and Tom Spaulding, Angelic Organics Learning Center and Mike Sands, The Farm Business Development Center at Prairie Crossing

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ANGELIC ORGANICS
Learning Center

About the Authors

Jim Munsch, Deer Run Farm

Author Jim Munsch raises organic, grass fed beef at Deer Run Farm in Vernon County, Wisconsin, and works part time as a business consultant to local organic vegetable producers and both organic and conventional beef producers in Wisconsin and Northern Illinois. He has degrees and experience in agricultural engineering, industrial management and international business.

Angelic Organics Learning Center (AOLC)

www.learngrowconnect.org

Angelic Organics Learning Center (AOLC), a northern Illinois-based 501(c)3 nonprofit organization, is a regional leader in helping urban and rural people build local food systems. Since 1998, it has offered opportunities to grow healthy food and a better quality of life, connect with farmers and the land, and learn agricultural and leadership skills. The Learning Center reaches more than 4,000 people each year through programs at partner farms and urban growing sites in northern Illinois and southern Wisconsin.

AOLC has over 14 years of experience in helping to prepare farmers to meet the rising demand for locally and sustainably produced agricultural products. As coordinating body for the Upper Midwest CRAFT (Collaborative Regional Alliance for Farmer Training), AOLC engages experienced farmers to provide skills workshops, technical assistance, and mentoring for those in training. Members include more than 120 rural farmers and urban growers from northern Illinois and southern Wisconsin who produce vegetables, fruit, livestock, dairy, grains, and a variety of value-added farm goods for direct and short chain wholesale markets. CRAFT has the twin goals of preparing skilled farmers and building a social network and culture of farmers.

The Farm Business Development Center at Prairie Crossing

www.prairiecrossingfarms.com

The Farm Business Development Center at Prairie Crossing (FBDC) is located at the Prairie Crossing conservation community in Grayslake, Illinois. The FBDC supports the development of successful family farm enterprises by focusing on the production and marketing of organic foods for local and regional food systems.

Also known as an “incubator,” the FBDC provides land, farm infrastructure, and a positive learning environment that helps beginning farmers develop the entrepreneurial skills, farming knowledge and market networks needed to become successful professional farmers. The incubator provides support and resources to its farmers using a market-based fee structure where possible. Farmers are a part of the incubator for no more than five years, at which time they are expected to “graduate” to the next level of independence.

New Opportunities... New Challenges for the Direct-Market Farm

The demand for local and sustainably produced farm goods is on the rise. More and more, consumers are becoming aware of where their food comes from and how it is produced. They are making purchases driven by environmental and animal welfare concerns, or based on perceptions of healthfulness, freshness, and safety. Consumers buying local food are seeking connections to farms and farmers, while government officials are discovering the high opportunity costs of importing a majority of food goods consumed in their communities. Producing and selling locally creates jobs and livelihoods and keeps dollars spent on food circulating close to home.

The increased demand is driving a small but steady shift in agriculture: from the predominant large, conventional farms producing a short list of grains sold on commodity markets with set pricing, to a renaissance of farms producing a whole range of specialized food products sold through many different channels with a wide variety of pricing and farm identity preserved.

For a growing number of direct-market farmers wanting to capture a share of this trend, scaling up to meet the demand presents both new opportunities and new challenges—with access to capital being a major barrier to efficiency, expansion and growth.

The Direct-Market Farm Financing Gap

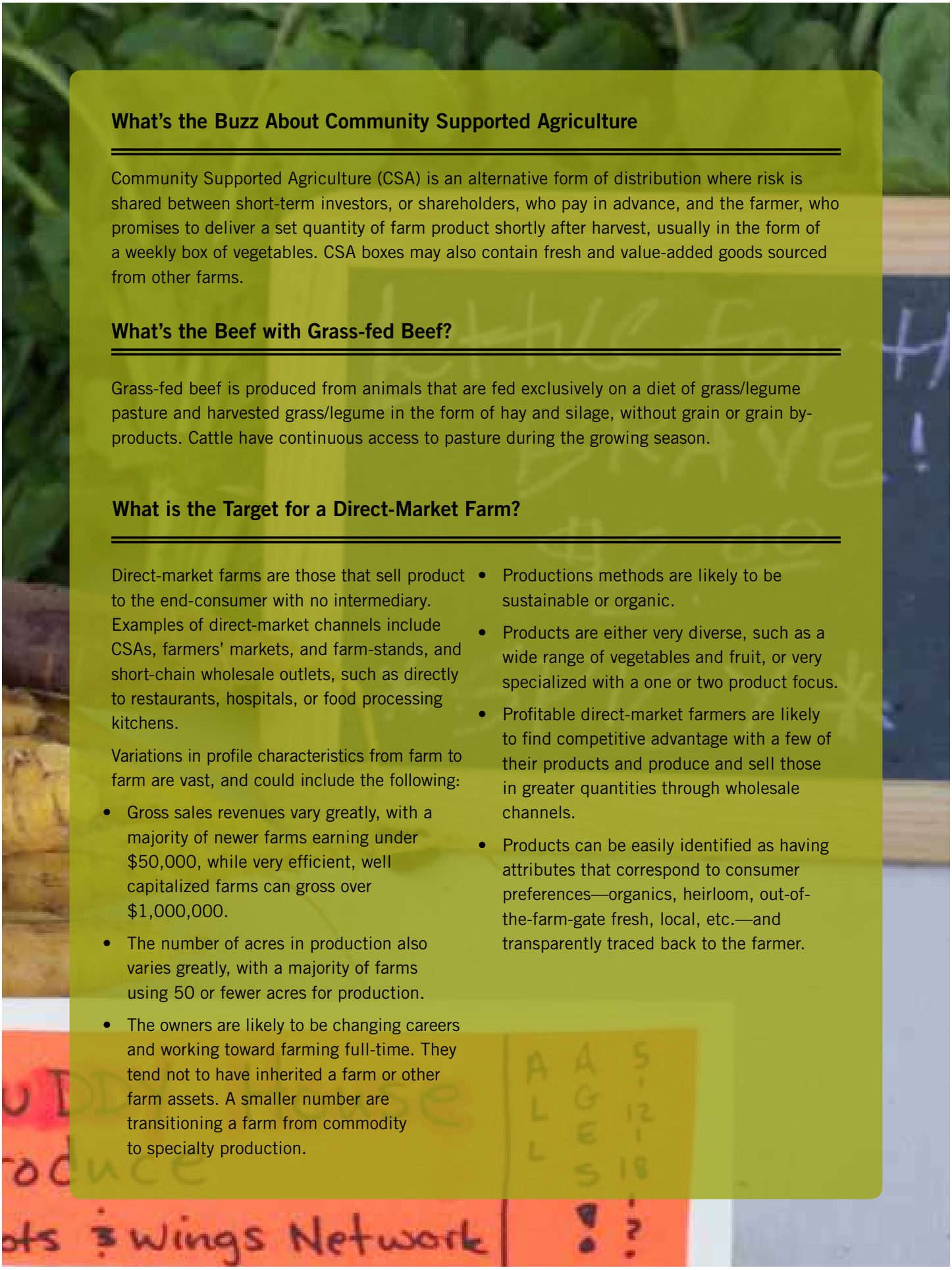
The direct-market farm business requires significant capital investment. Land, usually the farm's most valuable asset, is often purchased or leased at a premium in close proximity to its customer base in urban centers. Additional capital is needed for production assets such as livestock, machinery, tools, fencing, season extension infrastructure, and irrigation systems, and for specialized buildings and equipment for packing, washing, cold storage and delivery.

Many new farmers start their businesses with limited capital relative to the investment needed to become profitable. Some borrow from friends and family. Almost all use credit cards to finance certain expenses in the early years. As farmers grow in skill and experience, as their capacities for business expansion become more realistic, they need to turn to more formal financing arrangements. From the farmer's point of view, the business is technically "bankable," with great potential for profit and adequate cash flow to benefit from a formal loan or investment. The question becomes: How does the farmer go about convincing potential farm stakeholders—lenders and investors with capital—to take the risk?

Farmer Meet Banker... Banker Meet Farmer

Stakeholders with capital that have an interest in financing direct-market farms, even those in traditional agricultural circles, are often unfamiliar with the business models in the sector and rightfully hesitant in putting their dollars on the line. Without background and perspective on what it takes for these farms to achieve profitability, without vital context to make sound lending or investment decisions, there is too much risk involved, especially when considering young or new businesses. This gap in knowledge is compounded by the vast amount of diversity from farm to farm. There are few existing metrics that take into account the wide variety of farm sizes, production methods, product lines, markets and pricing to readily predict financial outcomes with a one-size-fits all approach.

Profit in the Field was created to help bridge this knowledge gap by outlining the business logic and the basic, but critical, data requirements for determining direct-market farm profitability. As a "primer" this document is intended as an introduction, or starting point, for beginning farmers and all those considering a stake in a direct-market farm businesses. Profit in the Field offers common characteristics shared by these farms and farmers; it briefly describes the skills necessary for successful management, and; using a series of exercises to be completed by the farmer, it provides a snapshot of the basic data required for determining profitability. The exercises are enhanced by real-life data from two types of direct-market farms—a Community Supported Agriculture (CSA) vegetable operation and a grass-fed beef operation.



What's the Buzz About Community Supported Agriculture

Community Supported Agriculture (CSA) is an alternative form of distribution where risk is shared between short-term investors, or shareholders, who pay in advance, and the farmer, who promises to deliver a set quantity of farm product shortly after harvest, usually in the form of a weekly box of vegetables. CSA boxes may also contain fresh and value-added goods sourced from other farms.

What's the Beef with Grass-fed Beef?

Grass-fed beef is produced from animals that are fed exclusively on a diet of grass/legume pasture and harvested grass/legume in the form of hay and silage, without grain or grain by-products. Cattle have continuous access to pasture during the growing season.

What is the Target for a Direct-Market Farm?

Direct-market farms are those that sell product to the end-consumer with no intermediary. Examples of direct-market channels include CSAs, farmers' markets, and farm-stands, and short-chain wholesale outlets, such as directly to restaurants, hospitals, or food processing kitchens.

Variations in profile characteristics from farm to farm are vast, and could include the following:

- Gross sales revenues vary greatly, with a majority of newer farms earning under $50,000, while very efficient, well capitalized farms can gross over $1,000,000.
- The number of acres in production also varies greatly, with a majority of farms using 50 or fewer acres for production.
- The owners are likely to be changing careers and working toward farming full-time. They tend not to have inherited a farm or other farm assets. A smaller number are transitioning a farm from commodity to specialty production.
- Productions methods are likely to be sustainable or organic.
- Products are either very diverse, such as a wide range of vegetables and fruit, or very specialized with a one or two product focus.
- Profitable direct-market farmers are likely to find competitive advantage with a few of their products and produce and sell those in greater quantities through wholesale channels.
- Products can be easily identified as having attributes that correspond to consumer preferences—organics, heirloom, out-of-the-farm-gate fresh, local, etc.—and transparently traced back to the farmer.

The Multi-Faceted Farm Entrepreneur

To be successful, direct-market farms demand that farmers bring four critical skill sets to their enterprises—a unique mix of agronomic and business capabilities. Application of these skills or lack of them is a keystone to profitability. Within each category listed below there is the need for higher-level capabilities (e.g. fertilizer management on an organic farm; in-depth financial analysis), and lower level capabilities (e.g. running a composter; bookkeeping). Therefore, it is imperative that good operators cover any deficiencies by hiring or contracting people to complement them in areas where they lack skills or interest. For those with capital to lend or invest, farmers should be carefully questioned on their background, skills and experiences.

Farmers interested in formal financing should make sure that the bankers or investors are aware of all pertinent skills and experience. There are a growing number of training opportunities for the direct-market farmer, both in agricultural production and business management. Participation in a beginning farmer training program, or a field-day series should be highlighted in a farmer's curriculum vitae. (A list of regional farmer training organizations is included at the end of this report).

Marketing and Sales

Success in the direct-market farm is inextricably tied to matching farm output to special market segments and getting paid a premium price. Farmers must be able to:

- Match, in detail, the product and it attributes to the market segments being pursued
- Choose the right customer base and find the right distribution channels to reach them
- Set prices correctly
- Solicit, process and receipt sales transactions; and,
- Interact with customers, often on a face-to-face basis, at markets or on the farm.

Agricultural Science and Production

Food-producing farmers need to have considerable skill in horticulture, agronomy and animal science focused on unconventional production methods and specialty products. While mainstream agriculture is well supported by government, university and input supplier programs of education and advice, there are only a few formal training opportunities for beginning direct market farmers. Much of the learning is experience-based, and many farmers train as employees or interns on other farms before starting their own enterprises. To be successful, the farm needs to be fairly self-contained in this knowledge base.

Harvest, Processing and Logistics

For the most part, the nature of these businesses is to deliver a food product ready to use by a consumer. The activity from field to plate becomes part of the attribute-enhanced product offered to a customer. Whether this is done on the farm or through others, it is still the responsibility of the farmer, and the skills needed for this end of the enterprise are distinct from those usually thought of as “farming” skills.

Unique equipment and processes are required for harvesting, washing, cooling, humidity control, slaughter, packing, labeling, transportation, and delivery, and all steps along the way must follow stringent guidelines to ensure food safety, taste and freshness.

People, Asset and Money Management

The successful recruiting and managing of people is critical, especially in the case of vegetable farms larger than a few acres. Labor management is complex because employment is usually seasonal and employees often have diverse language and cultural differences. With labor requirements come the added complexities of payroll and payroll taxes.

Active cash management is very important and can be challenging with typical agricultural patterns of input purchases combined with cash flow that is more consistent with a retail merchant. Also, the balance between capital and labor is complex on these farms and demands solid asset management skills.

The Business Logic Behind Profitable Direct-Market Farms

A growing segment of the consuming public has firmly held convictions about the way their food is produced and sold. These buyers are willing and able to pay price premiums for goods with attributes that match their preferences. Direct-market farmers have the ability to influence price by producing to these attributes—specialty production—and by ensuring that buyers in the marketplace are aware of these attributes—identity preservation.

It is important to remember that the direct-market farm "product" is not just the tangible item, like green beans or a steak. It is an attribute-enhanced product—washed and trimmed organic green beans available fresh at the farmer's market, or a sustainably pastured-raised, grass-fed rib-eye purchased as an addition to a weekly CSA share.

Producing these attribute-enhanced products and influencing price involves costs to the farmer, costs that are often significantly higher than those of conventional wholesale operations. In grass-fed beef production, for example, land needs for pastured animals exceed those of their grain-fed cousins. In vegetable operations, labor costs become significant as inputs of chemical fertilizers, herbicides and pesticides are taken out of the production picture. On the marketing and distribution sides, attracting and retaining customers comes with advertising, promotion, delivery and transactional costs, while farmers' markets tables and farm stands need to be staged and staffed week in and week out.

Many variables come into play because different attributes, and different combinations of attributes, will have different costs and command different prices on the market. Farmers must be constantly aware of their profit margins, and strike the right balance between specialization, price, and cost.

Product Attributes that Capture Higher Prices

Production Methods	Distribution Methods	Product Features	Real and Perceived Benefits
Organic	**Direct-to-Consumer**	Local (proximity of producer to buyer)	Know and trust producer
Sustainable	Farmers' Markets	Specialty	Health enhancement
Grass-fed	Farm Stands	Availability	Cleanliness, "goodness"
Free-range	Community Supported Agriculture (CSA)	Taste (actual field gate flavor)	Environmental stewardship
Hormone-free	Internet sales	Freshness	Food safety
Antibiotic-free	**Short-Chain Wholesale**	Minimal Packaging	Animal welfare
Non-GMO	Direct to Specialty Retail Outlets (Food Cooperatives, Natural Food Grocers)	Producer Reliability and Consistency	Support of local economy and region
Heirloom	Direct to Restaurants and Institutional Kitchens		Fair labor practices

It's Not Just a Carrot

Carrots can serve as a simplified example of the relationship between the product and all its special attributes, its market price, and the farmer's costs.

Bunched fresh carrots are a vegetable staple in many homes and can be purchased in the produce sections of almost all grocery stores. Bunched carrots from grocery store A are much like the bunched carrots from grocery store B, and likely comparably priced. With the fresh green tops attached, both will probably be higher priced by weight than their bagged and trimmed counterparts. These carrots were produced on a very large, highly specialized and mechanized vegetable farm in a temperate region of the United States.

Down the road, a similar looking bunch of carrots is being sold at a local farmers' market. These carrots are not certified organic, but the farmer standing behind the table is a well-known character at the weekly market and a trusted provider of a full range of vegetables grown 50 miles west with sustainable farming methods. The farmer lets the buyer know that the carrots were in the ground yesterday morning, and the sign for the carrots highlights the heirloom variety. The farmers' market bunched carrots—the all-natural, fresh-out of-the-ground, carrot from the nearby farm—will likely sell for a higher price than the grocery store bunches. These carrots come from a nine-acre family farm that runs a small, 40 member CSA operation and sells through 2 busy farmers' markets throughout the growing season.

A third bunch of carrots is delivered to the back of a high-end restaurant where the chef favors local foods for freshness and features farm names in menu item descriptions. The chef pays more for these carrots than those from the dominant conventional wholesaler. The seller operates a large 140 member CSA, but has developed strong efficiencies in producing certain vegetables, such as these organic carrots, which has opened the possibility of making profits through short-chain wholesale markets.

Predicting Profitability — Finding the Right Balance Between Specialization, Cost and Price

Beyond sketching out ideas on a napkin when the entrepreneurial lighting strikes, serious direct-market farmers—and all stakeholders in the farm—must use other means to be reasonably certain that, after the season is done, the business will have generated enough revenue to cover all its expenses, with additional funds to reinvest in the existing operation or branch out into new enterprises.

There are six concrete exercises a farmer can complete to check and validate assumptions about profitability. Potential stakeholders in the farm—lenders and investors that are considering a farm business for financing—can use these exercises for background and context against information the farmer provides in an application or business plan.

Analyzing Markets → Identify and locate customers who are willing and able to pay premiums for their food purchases;

Discovering Prices → Find the prices consumers are currently paying for equivalent attribute-enhanced products;

Determining Pricing and Volume, and Estimating Revenue → Forecast revenues by determining the prices the farmer can reasonably charge, and gauging the volume of product the farmer can reasonably produce;

Establishing the Production Model → Balance the production volume with the land and other assets of the farm;

Determining the Costs of Producing and Selling → Account for all expenses related to producing and marketing the farm's products, and;

Comparing Revenue to Cost → Calculate whether or not the farmer can produce and sell for less than the price captured.

The exercises are outlined as a series of questions that the direct-market farmer needs to answer to predict profitability. Going through each exercise and answering the questions requires research, data collection, and analysis. The more detailed the answers, the more accurate the final profit estimate will be.

Analyzing Markets

Who are the farm's customers?

- What channels does the farmer sell through? Directly to consumers? Through intermediaries such as restaurants, wholesalers, retail stores, or consolidators? Or does the farmer sell through multiple channels?
- For each channel, where are the buyers located? The closer to the farm, the lower the transportation costs will be.
- From whom do they currently buy products with similar attributes?
- Why will they buy the farmer's products over others?
- How does the farmer reach the customers and engage their patronage? What mode of advertising and promotion are needed?

What does the farm sell to each class of customer?

- What is the item specifically—what farm product?
- What physical condition is it in?
- How is it packaged?
- Where does the farm deliver it?
- When is it delivered?

What are the specific attributes that add value to the farm's products?

- What are the four or five attributes that enhance the value of the farm product?
- How do the attribute-enhanced products satisfy customer preferences?

Discovering Prices

For each channel, what is the current market price for a comparable product with the same or similar attributes?

Sources for price information include:

- Price data from other farms. This data can be found on farm brochures, order forms and farm websites. For vegetable farms, see a sample worksheet for making CSA box price comparisons in Attachment 1.
- Price data from retail locations offering food with similar or comparable attributes.
- Survey customers about current purchases of food with similar or comparable attributes.
- Survey other producer/sellers for their price data.

What are the differences in prices between channels?

- For vegetable farms, compare CSA total share price with retail prices for individual vegetables.
- For grass-fed beef farms, use individual meat cut prices to compare to packaging methods used by the farm. See a sample worksheet for beef price comparisons in Attachment 2.

Determining Pricing and Volume, and Estimating Revenue

With market price information as a background, what prices can the farm charge for its attribute-enhanced products?

- What steps are needed to secure orders from customers in each channel?
- How much product can be produced and sold? Create narrative to support these volume budgets. For grass-fed beef farms, convert the meat prices to prices for whole animals. Refer to Attachment 3, Converting Beef Cut Prices to Prices for Whole Animals.

How much revenue can the farm generate?

For vegetable farms, forecasts are based on sales by channel and some denominator within each channel. For CSA operations, this is the number of shares. Sales through farmers' markets, farm stands and wholesale channels can be supported by sales forecasts of individual crops by channel. See Attachment 4 for a sample worksheet entitled Vegetable Farm Revenue Analysis By Channel.

For grass-fed beef farms, there are a variety of analytical methods for turning animals into revenue events. Attachment 5, Grass-fed Beef Farm Revenue Analysis, suggests a method of looking at the number of animals and price. This analysis must be supported by the underlying cattle inventory, or be the result of purchasing cattle at earlier stages of life for finishing on the farm.

Establishing the Production Model

Can the farmer produce the attribute-enhanced products, and the estimated volume of products, on the available land and with available farm assets?

For vegetables farms, use UW "Grower to Grower" survey data. This will give acreages needed and approximate capital investment. Find survey data for Vegetable Farm Yield in Attachment 6.

For grass-fed beef farms, extension agents or USDA NRCS pasture specialists can estimate the acres needed in grass and hay. The exact number of acres will depend on the weight of the animals, yield of the pasture and hay land, and the skill of the operator. For example, on a very efficient farm about 2½ acres are needed to support a cow year round, and about 1½ acres to support a calf from wean to finish. Non-land capital can vary considerably depending on the operator's ability and willingness to outsource capital-intensive jobs to custom operators.

Determining Costs of Producing and Selling

What are all of the costs associated with producing and selling the farm product?

For vegetable farms, there are a variety of approaches a producer can use to predict cost: tracking past performance, forecasting from publicly available data, and estimating from whole-farm parameters.

Tracking Past Performance

When there is a track record, the past provides the best estimate of cost performance. As in all agricultural systems, the yield of production is a strong determinant. Therefore, cost/profit records with yield data strengthen cost/profit predictions. Equally important is the difference in profitability between channels. Analyzing profitability or cost by channel strengthens the accuracy of predictions.

For a farm with some labor data and some sales experience, a program available from the University of Wisconsin, **Veggie Compass www.veggiecompass.com**, can also be helpful to get an accurate cost analysis based on whole-farm analysis. The Veggie Compass spreadsheet-based program of cost and labor accounting leads to individual crop cost of production. While it is designed as a tool to look at past spending and yield events, it can be used effectively as a predictive tool provided there is cost or time data available, or data that can be obtained from sources defined below.

Publicly Available Data

For a new farm, there are publicly available crop cost and profitability tools. Two strong ones are **Iowa State University Extension and Outreach Ag Decision Makers Fruit and Vegetable Production Budgets** and the book, **Sustainable Vegetable Production from Start-up to Market**, by Vernon P. Grubinger.

Estimating with Parameters

A less accurate, but plausible way to estimate costs on a beginning farm is from general parameters outlined in the University of Wisconsin vegetable cost survey mentioned above: **Grower to Grower: Creating a Livelihood on a Fresh Market Vegetable Farm** by John Hendrickson.

Determining Costs of Producing and Selling (continued)

For grass-fed beef farms, there is not a lot of robust exemplar production cost data available. However, a producer can use these approaches to make predictions: tracking past performance, using the Schedule F, and budget-based forecasting.

Tracking Past Performance

Where there is a track record, the past provides the best estimate of cost performance given small incremental changes predicted in the revenue analysis above. This, however, must be within the land use restraints referred to above.

Using the Schedule F

Many producers do not have their cost system in a form that easily allows predicting spending with variances in animal numbers or sales. Attached is a simple enterprise cost system spreadsheet that can be worked through to assign expenses from a Schedule F into an enterprise approach to costing. See a sample worksheet in Attachment 7: Determining Costs for Grass-fed Beef Farm.

Budget-Based Forecasting

A third approach is to use cost estimates of the various enterprises based on budget worksheets provided by the Iowa State University Extension program: **Iowa State University Extension and Outreach Ag Decision Maker Livestock - Cost and Returns**. This approach does not tie all costs of a farm down to actual financial results in line with the Schedule F. (This may not be a problem for the farmer looking at alternative methods, but it is a problem for lenders or investors looking at actual results or predictions for whole-farm results.)

Compare Revenue to Cost

Can the farmer produce and sell attribute-enhanced products for less than the expected revenue?

After projecting revenue and associated cost (either from modeling or from actual past results), the farmer can compare one to the other in an income statement, such as an IRS Schedule F, and determine expected profit from the enterprise. This leads to a very traditional view of a farm operation. Obviously, returns need to cover all variable costs and all fixed costs such as tractor payments, land charges, building depreciation, insurance and taxes. The key question for the producer is whether there is "enough" profit and cash. Is there enough to invest further in the business, contribute to living expenses or repay a loan?

Attached are Profit and Loss Statements from two well-established, successful farms. One is a vegetable farm selling directly to consumers through a CSA operation and farmers' markets, and short-chain wholesale to a few restaurants and stores. Refer to Direct-Market Vegetable Farm Profit and Loss Statement in Attachment 8. The other is a grass-fed beef farm selling some animals in a very traditional way and doing meat sales through a buy and sell arrangement with a vegetable direct-market farm. Refer to Grass-fed Beef Farm Profit and Loss Statement in Attachment 9.

Conclusion

The growing number of highly successful direct-market farms attests to the potential in the sector. These businesses are, in many ways, more complex, and higher-risk, than their conventional commodity-producing cousins, because, essentially, they are farms, food processors and retail business.

Farmers and other stakeholders can use Profit in the Field, with its back grounding and exercises, to help make accurate profit predictions and help minimize risks. Key employees or consultants must be brought in to fill any gaps in the farmer's skill-base, both on the production side and on the business management. As well, farmers can "create" markets and influence price, but must balance those opportunities with very careful management of the higher costs associated with producing and selling specialty goods.

Farmers willing and able to do the hard work outlined in these pages — gathering the necessary data to accurately analyze markets and calculate volume, revenue and costs, and profits – will have much greater likelihood of success and profitability, and will be much better candidates in the competition for available farm financing capital.

For farmers who would prefer to explore the lines of inquiry offered in Profit in the Field accompanied by experienced farmers and farmer educators, there's good news. Farmer-led training alliances and programs focused on sustainable and community-based agriculture are increasingly available in the Midwest and across the country.

Working collaboratively with other direct-marketed farmers is a powerful way to assimilate many of the methods and tactics presented in this document. To strengthen new farm businesses, farmers are turning to an expanding network of farmer-led resources and curricula, and many of the organizations facilitating this work in the Upper Midwest are mentioned on the subsequent pages. Nationally, websites such as **www.craftfarmers.org** and **www.farmbeginnings.org** provide links and contact information for farmer-led training alliances and programs.

Regional Farmer Training Programs and Farming Support Organizations

For more information and resources related to direct-market farm business planning and farmer-led training, check out one or more of the organizations or programs listed below.

Collaborative Regional Alliance for Farmer Training (CRAFT)

www.craftfarmers.org

The Collaborative Regional Alliance for Farmer Training (CRAFT) is a farmer-led coalition organized by sustainable agriculture farmers in a self-selected geographic region. Participating farmers offer up their time, talents and experience to help prepare the next generation of farmers. The secret to CRAFT's success is simple—farmers learn most effectively from other farmers. CRAFT provides farmer-to-farmer learning and access to the social network and culture of local farmers. This page offers links to more than a dozen CRAFT farmer alliances in the United States and Canada.

Upper Midwest CRAFT

www.learngrowconnect.org/what/training/craft

Upper Midwest CRAFT is farmer alliance that engages experienced farmers to provide skills workshops, field days, information exchanges, and mentoring for those in training. Members include more than 120 rural farmers and urban growers from northern Illinois and southern Wisconsin who produce vegetables, fruit, livestock, dairy, grains, and a variety of value-added farm goods for direct and short-chain wholesale markets. The Upper Midwest CRAFT has the twin goals of preparing skilled farmers and building a social network and culture of farmers.

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The Farm Beginnings® Collaborative

http://www.landstewardshipproject.org/fb/collaborative.html

A national alliance of independent regional groups of farmers and farmer-training support organizations working together to promote Farm Beginnings®, a farmer training model that is community based, rooted in sustainable principles, and farmer led. Trainees participate in farm business planning classes and field days, and receive one-on-one support and technical assistance from farmer mentors. Farm Beginnings® was originated by The Land Stewardship Project in Minnesota and has been replicated into more than eight states.

Farm Beginnings Programs include:

Stateline Farm Beginnings® www.learngrowconnect.org/what/training/stateline
Serves southern Wisconsin and northern Illinois and is facilitated by Angelic Organics Learning Center www.learngrowconnect.org
1547 Rockton Road
Caledonia, IL 61011
815-389-8455
mail to: statelinefarmbeginnings@learngrowconnect.org

Central Illinois Farm Beginnings® central.illinoisfarmbeginnings.org
Collaboratively run by The Land Connection www.thelandconnection.org **and University of Illinois Extension** web.extension.illinois.edu/state/index.html
P.O. Box 3332
Bloomington, IL 61702
217-840-2128
mail to: info@thelandconnection.org

Southern Illinois Farm Beginnings® www.eatsouthernillinois.org/Training/Training_SIFB.html
Serves southern Illinois, southeast Missouri, southwest Indiana, and northeast Kentucky and is facilitated by Food Works www.eatsouthernillinois.org
P.O. Box 3855
Carbondale, IL 62902
618-319-0542
mail to: info@eatsouthernillinois.com

The Farm Business Development Center at Prairie Crossing

www.prairiecrossingfarms.com

The Farm Business Development Center is located on a one hundred acre farm in Grayslake, IL and has its foundation in the Prairie Crossing Conservation Community. Also known as a farm "incubator", the Farm Business Development center provides land, farm infrastructure, and educational opportunities for beginning farmers at the incubator and land tenure technical assistance for farmers in the service area of the Upper Midwest CRAFT farmer alliance.

Prairie Crossing Farm
32400 North Harris Road
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mail to: info@prairiecrossingfarms.com

Michael Fields Agricultural Institute

www.michaelfields.org

Michael Fields Agricultural Institute offer a series of Whole Farm Workshops, and other farmer training opportunities throughout the year. Classes enhance and expand farmers' skills in a wide variety of production and business areas.

W2493 County Road ES
P.O. Box 990
East Troy, WI 53120
(262) 642-3303 x117
mail to: sschmitt@michaelfields.org

Attachment 1
CSA Box Price Comparisons

	Farm A		Farm B	Your Farm
	Full Season	Full Season	Full Season	Full Season
Start Date	June 16	November 3	May 12	June 12
End Date	October 27	December 1	December 30	September 25
Number of Boxes	20	4	30	16
Subscription Fee	$640.00	$100.00	$915.00	$500.00
Certifications	None (use organic methods, not certified)	None (use organic methods, not certified)	None	Organic
Delivery	Delivery to 33 drop sites throughout the metropolitan area and suburbs	Delivery to 33 drop sites throughout the metropolitan area and suburbs	Delivery to 30 drop sites throughout the metropolitan area and suburbs	Delivery to 7 drop sites in the suburbs
Payment Methods	Single Payment, Two Installments	Single Payment, Two Installments	Single Payment, Two Installments, Monthly Auto Debit	Single Payment
Price per Box	$32.00	$25.00	$30.50	$31.25
Arugula	x		x	x
Asparagus	x			x
Basil	x		x	x
Beets	x	x	x	x
Broccoli	x		x	x
Brussels sprouts	x	x	x	x
Cabbage	x	x	x	x
Cantaloupe	x		x	
Carrots	x	x	x	x
Cauliflower	x	x	x	x
Celeriac			x	
Celery			x	x
Chard	x		x	x
Cucumbers	x		x	x
Daikon			x	
Edamame			x	
Eggplant	x		x	x
Endive/Escarole	x		x	x
Fennel	x		x	
Garlic, scapes	x	x	x	x
Green beans	x		x	x
Herbs	x		x	x
Horseradish			x	
Kale	x		x	x
Kohlrabi			x	x
Leaf lettuce	x		x	x
Leeks	x		x	x
Onions	x	x	x	x
Parsnips	x	x	x	x
Peas				x
Peppers	x		x	x
Parsley	x		x	x
Potatoes	x	x	x	x
Ramps (wild leeks from the woods)	x		x	
Raspberries			x	x
Rhubarb	x		x	x
Rutabaga	x	x		
Salad mix	x		x	x
Sauté greens	x	x	x	x
Spinach	x		x	x
Strawberries				x
Sunchokes			x	x
Sweet corn	x		x	x
Sweet potatoes		x	x	x
Tomatoes: hybrid, heirloom, cherry	x		x	x
Turnips: purple top, gold, scarlet, white	x	x	x	x
Winter squash: butternut, festival, etc.	x	x	x	x
Zucchini and summer squash	x		x	x

Attachment 2
Beef Price Comparisons

		Internet Organic Beef				Local Conventional		Specialty Stores in Market Area			Our Farm			Local Grass Fed
Cuts or Item	**Pounds of each cut in Our 50 lb. pack**	**Internet A**	**Internet B**	**Internet C**	**Internet D**	**Wall Mart**	**Certified Herford at IGA**	**Whole Foods Natural Meat**	**Organic at Natural Foods Store**	**Un-branded organic at specialty meat market**	**Mixed 50lb. Pack**	**Mixed 25lb. Pack**	**25lb. Burger Pack**	**Branded**
Tenderloin	2	$25.00	$25.00						$18.00					
Rib Eye	3	$18.00	$20.00						$16.00					
New York Strip	3	$16.45	$18.53						$14.00					
Sirloin	2	$17.00	$11.23						$12.00					
Summary of premium steaks (rib, t-bone, sirloin)	10	$18.41	$18.48	$19.00	$14.00	$7.90	$8.62	$14.00	$14.84	$21.07				5$14.39
Round steak, sirloin tip or cube steak	10	$7.95	7.3	$7.82	$5.83	$3.75	$4.00	$7.00	$8.00	$13.99				$8.29
Chuck or arm roast	10	$12.00	6.0	$6.80	$5.34	$2.70	$3.33	$5.00	$5.00	$8.49				$4.00
Lean hamburger (85-90% lean	18	$6.00	8.4	$6.91	$5.02	$2.00	$3.00	$6.00	$6.50	$6.59				$5.99
Stew meat, short rib	2	$8.50	6.0	$5.00	$5.83	$2.00	$3.00	$6.00	$6.50					$5.00
Total pounds	2	50.0	49.5	50.0	50.0	50.0	50.0	50.0	50.0	48.0	50.0	25.0	25	50
Price for package		$499.35	$472.01	$461.08	$346.72	$179.55	$215.19	$373.00	$401.00	$543.54	$400.00	$225.00	$175.00	$377.43
Price/lb. for pack		$8.00	$9.54	$9.22	$6.93	$3.59	$4.30	$7.46	$8.02	$11.32	$8.00	$9.00	$7.00	$7.55
		Frozen w/o Frt	Frozen w/o Frt	Frozen w/o Frt	Frozen w/o Frt			Fresh by cut	Fresh by cut	Fresh by cut				
			Frt about $2.5/lb											
										Kabob cubes				
										instead of rd stk				
										Roast is sirloin tip				
Premium over HVF Price		0%	6%	15%	-13%			-7%	0%	42%				
			versus HVF 25#)											
Average Price per Pound of Meat		$8.00	$9.54	$9.22	$6.93	$3.59	$4.30	$7.46	$8.02	$11.32	$8.00			
Retail markup (Estimate)		30%	30%	25%	20%	30%	40%	50%	50%	40%	25%			50%
Wholesale to retail		$5.60	$6.67	$6.92	$5.55	$2.51	$2.58	$3.73	$4.01	$6.79	$6.00			$3.77
Live weight		1000	1200	1200	1200	1200	1200	1200	1200	1200	1200			1200
Dressing %		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6			0.6
Hung Weight		600	720	720	720	720	720	720	720	720	720			720
Ratio of sellable to hung weight		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7			0.7
Sellable meat		420	504	504	504	504	504	504	504	504	504			504
Wholesale value of meat		$2,352	$3,364	$3,486	$2,796	$1,267	$1,301	$1,880	$2,021	$3,424	$3,024			$1,902
Processing & Transport		340	290	290	290	200	200	290	290	250	290			250
Net after processing & Transport		$2,012	$3,074	$3,196	$2,506	$1,067	$1,101	$1,590	$1,731	$3,174	$2,734			$1,652
Net price per pound hung weight		$3.35	$4.27	$4.44	$3.48	$1.48	$1.53	$2.21	$2.40	$4.41	$3.80			$2.29
Net price per pound live weight		$2.01	$2.56	$2.66	$2.09	$0.89	$0.92	$1.32	$1.44	$2.65	$2.28			$1.38

Attachment 3

Converting Beef Cut Prices to Prices for Whole Animals

Adapted from ZoBell et al. JOE 2004

Live weight	1100
Hot Carcass Weight (HCW)	605
Saleable product weight	572.0
Saleable Weight less fat & bone	440.1
Value, $/hd	$1,275

Dressing percent	55

Live value/lb	$1.38
Carcass value/lb	$2.50
Wholesale Avg $/lb	$2.64
Wholesale + $0.35/lb cut/wrap	$2.99
Wholesale avg $/lb	$2.23

Cut	Projected % Carcass	lbs	USDA Cut value, $/lb	Total carcass value
Back ribs	1.09%	6.6	$1.16	$7.63
Rib eye lip on	3.55%	21.5	$4.07	$87.43
Shoulder Clod	5.22%	31.6	$1.41	$44.51
Brisket	2.32%	14.0	$1.27	$17.82
Skirt meat	1.45%	8.8	$2.00	$17.54
Chuck roll	7.10%	43.0	$1.67	$71.75
Chuck tender	1.01%	6.1	$1.62	$9.94
Sp. Trim cap / pec	2.25%	13.6	$1.37	$18.62
Short ribs	2.17%	13.2	$1.23	$16.18
Full tender	1.81%	11.0	$8.91	$97.65
1x1 top loin	3.62%	21.9	$4.47	$97.98
Top Sirloin butt	3.33%	20.2	$2.26	$45.58
Sirloin flap	1.25%	7.5	$3.01	$22.70
Ball tip	1.30%	7.9	$2.18	$17.20
Tri tip	0.87%	5.3	$2.38	$12.52
Peeled Knuckle	2.75%	16.7	$1.80	$29.99
Inside Round	5.87%	35.5	$1.51	$53.62
Eye Round	1.88%	11.4	$1.91	$21.77
Round Flat bottom	4.41%	26.7	$1.84	$49.05
Flank Steak Trim	0.64%	3.9	$3.43	$13.23
80/20 for grinding bone	18.84%	114.0	$2.00	$227.97
Total bone wt. fat	14.57%	88.1	$0.02	$1.76
Total wt. of fat	7.25%	43.8	$0.05	$2.19
Total	**94.55%**	**572.0**		**$980.67**

Attachment 4

Vegetable Farm Revenue Analysis by Channel

	Past								Current	Projected					
	2006	Change	2007	Change	2008	Change	2009	Change	2010	Change	2011	Change	2012	Change	2013
CSA Sales															
Number of Boxes	0		0		12	96%	23	78%	40	50%	60	67%	100	40%	140
Value of boxes in $	$0		$0		$5,000	100%	$10,000	70%	$17,000	57%	$26,700	69%	$45,000	48%	$66,500
Average box value					$435		$444		$425		$445		$450		$475
Market Sales															
Value of Sales in $	$5,000	180%	$14,000	50%	$21,000	24%	$26,000	-4%	$25,000	6%	$26,500	2%	$27,000	-4%	$26,000
Wholesale to Grocery															
Value of Sales in $	$0	0%	$375	220%	$1,200	0%	$1,200	25%	$1,500	33%	$2,000	100%	$4,000	-13%	$3,500
Wholesale to Restaurant															
Value of Sales in $	$0	0%	$450	51%	$680	32%	$900	0%5	$900	0%	$900	0%	$900	0%	$900
Wholesale to Other Farms															
Value of Sales in $	$0	0%	$0	0%	$75	268%	$276	0%	$276	0%	$276	0%	$276	0%	$276
Total Sales $	$5,000	197%	$14,825	88%	$27,880	37%	$38,100	17%	$44,400	26%	$56,100	37%	$76,900	26%	$96,900
Area Planted (Acres or Bed Feet)	0.75	100%	1.50	33%	2.00	50%	3.00	33%	4.00	17%	4.68	37%	6.41	26%	8.08
Revenue per Acre or Bed Feet	$6,667	48%	$9,883	41%	$13,940	-9%	$12,700	-13%	$11,100	8%	$12,000	0%	$12,000	0%	$12,000
Number of Full Time People (Equivalent)	1.0	100%	2.0	25%	2.5	20%	3.0	0%	3.0	44%	4.3	37%	5.9	26%	7.5
Revenue per FTE Person	$5,000	48%	$7,413	50%	$11,152	14%	$12,700	17%	$14,800	-12%	$13,000	0%	$13,000	0%	$13,000

Attachment 5

Grass-fed Beef Farm Revenue Analysis

	2009			2010			2011			2012		
Revenue (Sales)												
	Value	No of Animals Sold	Avg price per hd	Value	No of Animals Sold	Avg price per hd	Value	No of Animals Sold	Avg price per hd	Value	No of Animals Sold	Avg price per hd
Sale of Meat	$9,500	5	$1,900	$12,000	6	$2,000	$18,000	9	$2,000	$23,000	11	$2,091
Sale of Animals												
Finished sold live	11,000	7	1,571	9,917	6	1,653	3,200	2	1,600	0	0	
Breeding animals	2,000	2	1,000	2,000	2	1,000	1,200	1	1,200	2,000	2	1,000
Feeders	4,100	5	820	3,200	4	800	5,000	6	833	5,000	6	833
Cull animals	1,960	2	980	1,960	2	980	2,660	2	1330	2,660	2	1330
Other Revenue	3,524			2,400			4,500			3,524		
TOTAL Revenue	**$32,084**	**21**		**$31,477**	**20**		**$34,560**	**20**		**$36,184**	**21**	
Cattle Inventory												
Brood Cows		16			16			16			16	
Bulls		1			1			1			1	
Weaned & Finishing		12			12			12			12	
Total		29			29			29			29	

Attachment 6
Survey Data for Vegetable Farm Yield

	<3 acres		3 to 12 acres		>12 acres	
Average Gross Sale per Acre	$15,600		$11,121		$10,810	
Range	9,000	28,000	7,059	15,262	6,712	16,687
Average Labor Hours per Acre	1,957		850		554	
Range	592	3,021	349	1,870	166	729
Return to Owner labor, mgt & capital per Acre	5,664		4,679		3,757	
Range	-1,886	17,269	466	9,792	779	10,120
Owner's Return + Reinvestment per acre	7,133		5,888		5,049	
Capital Investment in equipment	All sizes average: $7,400/a for vegetable farms. $12,400 for "market farms.					

Data from Hendrickson, John, "Grower to grower: Creating a livelihood on a fresh market vegetable farm", October, 2005; University of Wisconsin-Madison College of Agriculture and Life Sciences; www.cias.wisc.edu/wp-content/uploads/2008/07/grwr2grwr.pdf

Attachment 7
Determining Costs for Grass-fed Beef Farm

Expenses			Input Cost Centers			Enterprise Cost Centers			
Operating Expense		**Total Expense**	**Harvested Forage**	**Pasture**	**Grain**	**Cows/Bulls**	**Feeders**	**Finished**	**Meat**
Land Rent		6,580	5830	750					
Farm Property Tax		1,790		1,601		95	47	47	
Paid Labor		778	778						
Employee benefits									
Car & Truck		1,091	250			301	190	300	50
Fuel and lubricants		2,669	2,139	26		404	40	60	
Freight & trucking		555					70	425	60
Purchased Feed									
Salt and Mineral		490				390	50	50	
Fertilizer & lime									
Repairs & maintenance		3,910	3,240	246		203	165	56	
Custom Hire		650	650						
Supplies		488	333	155					
Seeds		732	293	439					
Veterinarian & Medicine		457				179	278		
Breeding									
Electricity		750		125		250	300	75	
Office Utilities (phone, internet, etc.)									
Professional Services		100				50	30	20	
Meat Processing		257							257
Office supplies									
Certifications, license & registrations		713				456	108	149	
Marketing services & materials									
Total Cash Expense		**22,010**	**13,513**	**3,342**		**2,328**	**1,278**	**1,182**	**367**
Depreciation - Scheduled		3,652	1,800			900	480	472	
Depreciation - Sec 179		3,400	2,800						600
Depreciation - Notional									
Owners Labor - Hours		800	240	80		234	160	80	6
Owners Labor - Rate & Expense	$10	8,000	2,400	800		2,340	1,600	800	60
Interest on Farm Debt									
Total Assignment of Operating Exp:		$37,062	$20,513	$4,142	$5,568	$5,568	$3,358	$2,454	$1,027
Allocation of Pasture Expense						3692		450	
Allocation of Harvested Forage Fed					11,966	11,966	6,536	2,011	
Allocation of Grain Expense									
				Total Enterprise Cost		$21,226	$9,894	$4,915	$1,027
Total Farm Revenue		35501		No of Animals		35	28	14	1
Total Farm Cash Expense		22010		Cost per Animal		$606	$353	$351	$1,027
Depreciation		7052		Calves Weaned		30			
Total Reportable Income (Sch F)		6493		Sale of Culls		-$2,660			
				Net cost per calf		$619			
				Cumulative cost		$619	$972	$1,323	$2,350

Attachment 8
Direct-Market Vegetable Farm Profit and Loss Statement

(average performance over 3 years)

	Vegetable	Buy/Resell	TOTAL
Sales	$303,285	$82,179	$385,464
Cost	$222,921	$45,628	$268,549
	74%	**56%**	
Gen, Admin & Sales	$8,827	$1,674	$10,502
Net Profit	$71,536	$34,877	$106,413
	24%	**42%**	**28%**
Return to Owners			$106,413
Labor, Mgt & capital			
Owners labor hours		3,270	
Return per hour			$32.54
Sect 179 Depr in year		$25,227	
Land Charge Included			
Acres Committed		40 (18 acres cultivated)	
Total Rent		10,000	
Rent per acre		$250	
Vegetable Sales / acre cultivated			$16,849
Capital Eqmt & Facilities	$139,190		

Attachment 9
Grass-fed Beef Farm Profit and Loss Statement

(average over 2 years)

Sales	$76,045
Cost to Produce	26,562
Processing	8,207
Gen, Admin & Sales	13,688
Depreciation	7,052
Net Profit	$20,536
Capital in Equipment	$30,000
Return to Owners Labor & MGT	
Owners labor hours	1,700
Return per hour	$12.08
Total Acres Owned	80
Acres Rented	85
Rental Rate per Acre - Average	$77