

Values-based food supply chains: Red Tomato

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Website: www.redtomato.com¹



Fresh produce. Fresh thinking.

Historical development

Introduction. Red Tomato is a dual-purpose organization that markets sustainably grown fruits and vegetables in the Northeast and consults on regional food system development across the country. It was founded as a nonprofit organization in 1996 by Michael Rozyne, one of the creators of the international fair trade company Equal Exchange.

Strategic and philosophical goals. Red Tomato's mission is "connecting farmers and consumers through marketing, trade and education, and through a passionate belief that a family-farm, locally based, ecological, fair-trade food system is the way to a better world *and* a better tomato" <www.redtomato.org/freshproduce.php>. See Appendix B on page 17 for more background and Appendix C on page 18 for the mission, vision and values statements from 2006.

Organizational development. Red Tomato has gone through several stages of organizational development in the areas of sustainable food trading and food systems development consulting:

Sustainable food trading.

1997-1999: Red Tomato began working on a broad scale with a network of other East Coast, non-profit, food-related organizations. These early collaborations resulted in Red Tomato pulling back to New England, emphasizing marketing, trading and income generation. Red Tomato decided to develop its own distribution and logistical systems that would connect farmers and buyers.

1999-2002: Red Tomato sought to operate its entire food supply chain. It developed a full-blown, stand-alone food distribution system with trucks, drivers, docks and coolers that it shared with Equal Exchange <www.equalexchange.com>. It became clear that this self-contained transportation and distribution system was too expensive to sustain and put the organizational focus in the wrong areas:

"concrete and rubber versus farmers and products."

However, Red Tomato established relationships with farmers and customers that provided the base for its next stage of development.

2003-2004: A bold choice was made to: a) drop trucks and coolers and hang on to customers and farmers; b) coordinate, not operate, the supply chain; and c) focus on Red Tomato's marketing and logistical orchestration competencies (See cross-case observation #9 on page 10).

2005-2008: Red Tomato continued its development of a successful model to coordinate its supply chain that enabled it to: a) grow without being overwhelmed by expensive infrastructure and maintenance; b) focus

on growers, products, customers, logistics, differentiation and branding; and c)

emphasize Red Tomato's

primary role as a "*food de-commodifier*" (Michael Rozyne, Director of Red Tomato, interview, 02/05/07). In 2006, Red Tomato joined with Equal Exchange and AgroFair, a European fair trade fruit company, to start Oké USA, a fair trade banana enterprise <www.okeusa.com>.

A bold choice was made to ... coordinate, not operate, the supply chain

Food systems development consulting.

Initiated in 2004, Red Tomato's consulting enterprise is designed to increase organizational income and "*employ skilled people in the winter.*" Examples of this work include consulting on the creation of a public market in Portland, Maine; participating in the development of a domestic fair-trade association in the United States <www.equalexchange.com/what-is-domestic-fair-trade>; developing fair trade markets for bananas in the United States; and consulting on a new Illinois

¹All websites referenced in this document were accessed on 4/23/09. Links in pdf are live.

food system. Red Tomato selectively chooses the consulting jobs it engages, given its limited staffing and uneven demands on staff by season. While generally separate, the food trading and consulting (food systems development) enterprises may overlap, as was the case with moving a watermelon trading project associated with the Federation of Southern Cooperatives into the consulting category. With opportunities to rapidly expand regional trading over the past several years, the role of consulting has diminished for the time being (Michael Rozyne, interview, 03/12/08).

Financial development. Red Tomato has three income streams: trading income, consulting fees, and gifts and grants (foundation and government grants, and gifts from individual donors). To cover the costs of coordinating and administrating its trading business, Red Tomato charges ten percent of the wholesale prices paid by customers in its food supply chains.² Trading income in 2007 accounted for \$240,000 of Red Tomato's \$600,000 budget.

Red Tomato's ten-year financial goals are a self-supporting trading business and balanced income streams. It aims for 50 percent or more of its income from food trading (with growth in New York, New Jersey and Pennsylvania) plus consulting fees; and the remaining half from government and foundation grants, with a steadily increasing proportion from individual donors. Red Tomato will increase its attention to philanthropy with the hiring of development staff focused on individual donors (Michael Rozyne, interview, 03/12/08).

Historical growth indicators. Red Tomato sales increased from \$0.5 million to \$2.475 million between 2003 and 2007. During this time, Red Tomato worked with approximately 35 farmers, and the average volume purchased from each farmer rose significantly (Michael Rozyne, interview, 03/12/08) (See cross-case study observations #1 and #2).

² Based on the quality of Red Tomato's "trading services," it could legitimately explore increasing its commission rate to more than 10 percent.

Current dynamics

Creating and marketing differentiated (and higher value) food products. Value chains are predicated on producing and marketing significant volumes of differentiated, higher value products (Appendix A on page 12).

Product differentiation and branding. In its ten years of business development, Red Tomato has shifted from trading mainly organic vegetables to a high proportion of Integrated Pest Management (IPM)-grown fruit, primarily Eco Apples. For a description of Eco Apples and the IPM protocols for growing them, see the Red Tomato website <www.redtomato.org/ecoapple.php>. *"We discovered that organic vegetable growers were better able to build the infrastructure to direct wholesale their products on their own. The infrastructure associated with conventional fruit marketing in the region had eroded significantly ... Organic fruit is very difficult to grow in the Northeast to a supermarket standard and volume"* (Michael Rozyne, interviews, 02/05/07 and 03/12/08).

Red Tomato differentiates—or "de-commodifies"—its products through:

- **High quality** (freshness and flavor). High quality is associated with all the links in the supply chain, from production through packing, storage and transportation to markets. The Red Tomato website emphasizes the flavor of its fruit: *"The number one reason to eat an eco apple is the exceptional flavor."*
- **Red Tomato's brand and farmers' identities.** The Red Tomato brand and the identity of the growers it buys from are retained, in most cases, to the point of sale.
- **Environmentally friendly farming systems.** The majority of Red Tomato's fruit and vegetable products are ecologically grown, a category that includes organic production and advanced IPM <www.redtomato.org/wieco.php>.
- **Packaging.** Red Tomato successfully uses packaging to tell its own, and its growers', stories.

Examples of Red Tomato packaging and labels can be seen on its website <www.redtomato.org/packaging.php>.

- **Fair trade.** “Fair trade is underdeveloped at Red Tomato. It’s an area we’d like to develop in the next ten years” (Michael Rozyne, interview, 09/23/08). Red Tomato is committed to progress in this area in 2009/2010. Communications manager Sue Futrell is active in the emerging domestic fair trade movement in the United States <www.dftassociation.com>. Red Tomato is beginning discussions with the United Farm Workers and Oxfam America about practical ways to advance a farmworker agenda among its farmers.
- **Product variety, crop choice and grade in packing.** See the “Products” page of the Red Tomato website for a listing of the primary fruits and vegetables traded by Red Tomato <www.redtomato.org/products.php>.
- **Consolidation and aggregation.** Red Tomato consolidates small loads into larger, more efficient loads, enabling its customers to access dozens of farms’ products through a single relationship, call, invoice and insurance policy (Michael Rozyne, interview, 02/05/07).

Standards and certification. Food value chains that are larger and more complex than direct-to-consumer marketing require clearly communicated standards, and often third-party certification (See Appendix A).

Red Tomato has worked with the IPM Institute of North America, Inc. <www.ipminstitute.org> to develop standards and certification mechanisms for low-chemical apple production using integrated pest management. Red Tomato refers to this as advanced IPM. For Red Tomato’s IPM practices, standards and certification protocols for apple production, see its “Eco Apple Quick Guide” <www.redtomato.org/PDF/QuickGuide.pdf> and “Eco Apple Protocol” <www.redtomato.org/PDF/Protocol.pdf>. The Eco Apple sub-brand belongs to Red Tomato, and is used in association with the names of individual growers (Michael Rozyne, interview, 09/23/08).



Red Tomato farmers can maintain their identity as deeply into the supply chain as they choose.

Red Tomato recognizes that it will soon be important for its farmer partners to be certified under the USDA’s Good Agricultural Practices (GAP) program (Michael Rozyne, interview, 03/12/08). Food safety and traceability measures will be offered by Red Tomato starting in 2009 or 2010.

Identity preservation through the value chain. A feature of the food value chain model is that farmers and ranchers have the right to maintain their identity and brand on the product as deeply into the supply chain as they choose. This may involve co-branding with strategic partners (See Appendix A). For an example of co-branding, see the “Identity preservation” section of the Shepherd’s Grain case study.

Given Red Tomato’s key role as a “food de-commodifier,” it is very important that products

sold through this business are clearly identified with Red Tomato's name and logo. This includes point-of-sale materials as well as the apple tote bags, peach baskets and packages in which its Eco Apples, peaches and romaine lettuce hearts are sold. Based on feedback from growers at the annual Eco Apple meeting in 2006, and from key customers such as Trader Joe's and Whole Foods, Red Tomato featured the identities of the farmers more prominently on the Eco Apple totes in 2007 and 2008 (Michael Rozyne, interview, 7/24/08) <www.redtomato.org/trade.php>.

Interaction and feedback from customers. “We usually hear when there's trouble with a product ... so no news is good news” (Michael Rozyne, interview, 02/09/07). Growers are primarily responsible for the maintenance of high quality in the Red Tomato model. New grower partners are screened carefully and typically come recommended by other growers (See Appendix D). All complaints regarding the quality of Red Tomato products are dealt with quickly, and staff evaluate where in the supply chain the problem originated. “It's important to address problems quickly and honestly ... and it helps to be working with ‘non-defensive’ people” (Michael Rozyne, interview, 03/12/08). Red Tomato growers occasionally participate in value chain outreach to customers and consumers (See cross-case study observations #4 and #10).

Creating effective internal organizational forms.

Successful value chain businesses aggregate and market products through effective organizational structures, and develop and/or hire competent leadership and management (Appendix A).

A multi-purpose organization with non-profit and for-profit functions. See the Historical development section on page 1 for the growth in Red Tomato's trading enterprises, its reduced emphasis on consulting, and the addition of individual philanthropy to its non-profit funding streams.

Competent leadership and management. Red Tomato's organizational structure reflects its multiple functions. Overseeing both the trading and grants/gifts work are a Board of

Trustees (a group of advisors, which includes one farmer) and two co-directors (Michael Rozyne and Betty MacKenzie). What's unique about Red Tomato's management is that both co-directors are active on the front line, leading different aspects of the trade work and interacting with customers and growers. Given the importance of effective supply chain logistics, Red Tomato's full-time logistics manager is pivotal. Individual traders have operational responsibilities for specific product lines. A full-time development director and a development assistant staff the grants/gifts side of the business (See cross-case observation #7).

Two professional consultants manage design and communications for Red Tomato. In 2007 and 2008, considerable time went into planning and developing a more sophisticated web presence for communicating Red Tomato's story. Launched in early March of 2009, the Red Tomato website is completely redesigned and continually updated (Michael Rozyne, interviews, 03/12/08 and 03/06/09).

Selecting markets and value chain partners.

Successful value chain partners have similar values, different competencies, and complementary business models (See Appendix A).

Farmer partners. Experience has taught Red Tomato that certain producer characteristics, including a *combination of structural and personal attributes*, fit well with its value chains. These are farm enterprise capacity, or sufficient product volume and variety, storage, refrigeration, packing



Red Tomato farmers attend an IPM meeting in New Hampshire.



Red Tomato draws heavily on the recommendation of existing farmers in the selection of new farmer partners.

and trucking capacity; location, or geographical fit with logistical routes; economic match, where partners are neither too large nor too small: “*We matter to them and they matter to us*”; and temperament, marked by reliability, openness and ability to communicate: “*... no defensiveness allowed*” (Michael Rozyne, interview, 02/09/07). See Appendix D for further details on desired farmer characteristics. For a list of Red Tomato farmer partners, see www.redtomato.org/farms.php. A 2005 survey of its farmers indicated a “decidedly positive attitude toward Red Tomato” (DFD Associates Report, 01/02/06).

Given the importance of product quality and a supply chain structure in which quality control rests primarily with growers, Red Tomato carefully selects its farmer partners through a screening process that draws heavily on the recommendations of existing Red Tomato farmers (See cross-case observation #5).

Processing and distribution partners. For distribution of its products, Red Tomato relies on its farmers. It also has contracts with three key

independent trucking companies operating in the Northeast. Rates are negotiated and confirmed via handshake agreements. “*There is a large, almost unsettling, dependence of Red Tomato on these three regional trucking outfits. So far, so good*” (Michael Rozyne, interview, 10/10/08).

Retail and food service partners. Red Tomato has learned through experience that, like farmer characteristics, certain buyer characteristics fit well with its value chains. These qualities include both structural and personal attributes: economic match: “*Is Red Tomato important to you? Do your customers want our stuff?*”; logistical match, such as volume, scale, schedules and connections; and commitment to long-term business relationships: “*Start with a two- to three- year trial, but be open to an indefinite commitment*” (Michael Rozyne, interview, 02/09/07).

Red Tomato’s retail and food system partners represent a range of businesses. For a list of these partners, see www.redtomato.org/trade.php. For a more in-depth look at two large retail partners—Whole Foods and Trader Joe’s—analytical case outlines are available upon request (See Appendix E on page 20) (See cross-case study observation #12).

Packaging partners. Given the importance of product differentiation through packaging, Red Tomato has initiated a new strategic partnership that will focus on the range of special packaging that it employs. Red Tomato is interested in new packaging types and designs that would more prominently feature growers’ identities. Red Tomato’s design consultant is leading this work. The design consultant will not only look at innovative packaging design, but will also work with farmer partners to develop effective packaging logistics at growers’ packing sites (Michael Rozyne, interview, 03/12/08).

Strategic partnerships replace capital and expertise. See “Historical development” on page 1 for a powerful example of replacing investments in concrete and rubber with strategic distribution partnerships. Red Tomato’s strategic partnerships in packaging and information technology are further examples of acquiring expertise and capacity through connections with other businesses and

consultants (See cross-case study observations #9 and #13).

Developing effective supply chain logistics. In addition to values-based business relationships, successful value chains require increasingly sophisticated logistical systems as they grow larger and more complex (See Appendix A).

Production. Red Tomato consults with African-American farmers in the Southeast to help them develop high-quality watermelons and other products that can be sold in that region. Product packaging often has production consequences. The repackaging of romaine hearts, for instance, requires different growing practices and an earlier harvest than romaine lettuce. Red Tomato's basket of mixed variety heirloom tomatoes lets growers mix and match varieties as they differentially ripen.³

“Red Tomato’s ability to consolidate a variety of products so buyers need only one contact is very valuable to them.”—Michael Rozyne, Director

Post-harvest produce handling is a critical part of quality maintenance. All of Red Tomato's growers have the capacity to maintain post-harvest cold chains. For the importance of high-

quality products, see “Product differentiation” on page 2. For an analysis of Red Tomato's preferred farmer attributes, see “Farmer partners” on page 4, and Appendix D. An analytical case outline of an orchard growing apples for Red Tomato is available upon request (See Appendix E).

Aggregation and distribution. Red Tomato creates value through product aggregation. “*Red Tomato’s ability to consolidate a variety of products so buyers need only one contact is very valuable to them*” (Michael Rozyne, interview, 02/09/07). Red Tomato's aggregation and distribution strategies are complex and increasingly sophisticated. The turnaround time for most orders is two to four days. The logistics behind any given order of Eco Apples, peaches, lettuce or heirloom tomatoes depend on the customer's location, the producers' locations, the length of the haul, the availability of the producers' own trucks, and/or the availability and rates of

contract trucking firms (Angel Mendez, Logistics Manager, interview, 07/24/08).

Increasingly, larger Red Tomato farms are using their own straight trucks for shorter hauls. Longer hauls are predominately made by one of three regional trucking firms, or one of the larger apple orchards whose distribution schedules fit well with Red Tomato's needs (so rates are lower). Larger and longer hauls are done in semi-trailers. Aggregation points vary between orders. Overnight pooling and cooling regularly occur at producers' farms, trucking firms' warehouses, and warehouses at the terminal New England Produce Market in Boston. Trader Joe's, a primary Red Tomato retail partner, submits purchase orders for apples seven days a week, 364 days a year. To fulfill these orders, Eco Apples are banked in a trucking partner's coolers in the Boston terminal market for daily delivery. Heirloom tomatoes are delivered to Trader Joe's eastern warehouse directly from a large berry and tomato farm, using the farmer's truck.

According to Angel Mendez, the greatest logistical challenges occur when direct deliveries of strawberries and romaine lettuce hearts are made to thirteen separate Whole Foods Markets at the beginning of the trading season, because the paperwork and order fulfillment is complicated; and when orders result in less than full loads (22 to 24 pallets for semi-trailers, and 10 to 12 pallets for straight trucks). Trucking rates balloon in these situations and can become prohibitive (Angel Mendez, interview, 07/24/08). “*In 2008, Red Tomato’s smaller loads were more efficient than in previous years ... because we worked harder on it, paid closer attention*” (Michael Rozyne, interview, 10/10/08) (See cross-case study observation #6).

Accounting. Red Tomato's logistics manager, who is supervised by the financial manager, handles accounting for the business. The complex, variable and shifting nature of Red Tomato's trading deals necessitate the participation of the logistics manager in the first layers of a transaction's paperwork, including invoicing and making sure that farmers are paid. As Red Tomato grows, it is anticipated that new recordkeeping software will be adopted to

³Red Tomato's special packaging for heirloom tomatoes amounts to differentiation within a differentiated product.

make things easier for the logistics manager (Angel Mendez, interview, 07/24/08) (See cross-case study observation #6).

Logistical coordination. Coordination is carried out through close communication between Red Tomato's co-directors and the logistics manager. Each of Red Tomato's traders provides input through weekly trade circle meetings (Michael Rozyne, interview, 03/12/08).

Achieving economic sustainability. In successful value chains, commitments are made to the economic welfare of all strategic partners (See Appendix A).

Pricing philosophy. Red Tomato operates under a *dignity pricing* model that combines growers' perceptions of their own production costs, their experiences in the market and their sense of what's fair. It works like this: Red Tomato traders ascertain from growers the following price points: a) the average price recently received for a given product; b) the price they want through the Red Tomato brokerage; and c) the lowest price they will accept with dignity. Armed with this information, Red Tomato traders seek to get the highest reasonable price from a given buyer. *"We can usually get between the average and desired price ... and we will never sell below the dignity price without first getting a grower's permission ... Sometimes, it's actually an okay deal to go below the dignity price when the corresponding volume is large, and provides security and predictability"* (Michael Rozyne, interviews, 02/09/07 and 10/10/08). Information on satisfaction with this pricing model and the difficulty of precisely determining production costs on multi-enterprise fruit and vegetable farms is available in separate analytical outlines for Ward's Berry Farm and Clark Brothers Orchard, which are available upon request (See Appendix E) (See cross-case observation #1).

Pricing decisions are made account by account, product by product, and season by season. For example, prices for peaches in the Northeast vary according to the ripening schedules for New Jersey peaches for a given year. The length of pricing agreements varies between customers and products.



An array of Red Tomato produce.

"Establishing a set price across the season works for some buyers for some products and not for others ... We can set a price at the start ... and adjust later in the season" (Michael Rozyne, interview, 02/09/07).⁴

In addition to increased prices, Red Tomato's value chain operation can offer growers other significant economic rewards. These include access to new market channels and outlets for smalls or seconds. For example, Red Tomato's mini-baskets for peaches enable the high-value sale of smaller peaches that *"can be the key to profitability for that crop. Sometimes selling the lower or smaller grades is the best thing we can do for a grower"* (Michael Rozyne, interviews, 02/09/07 and 10/10/08) (See cross-case observation #3).

Red Tomato establishes agreements through verbal understandings and handshake agreements based on trust. *"Both the growers and the buyers trust us ... and we trust them"* (Michael Rozyne, interview, 03/12/08). See Appendix A for the importance of trust between strategic partners in highly functioning value chains.

Mixed income streams. For a description of Red Tomato's three income streams and future goals, see "Historical development" on page 1.

Communicating sustainable economics in the marketplace. Red Tomato communicates sustainable economics at several levels. Currently, this occurs directly through trading and deal making. For example, during negotiations with a

⁴It would be interesting to compare Red Tomato's seasonally adjusted pricing model and the new adjustable pricing policy that Shepherd's Grain is adopting.

major buyer of heirloom tomatoes in the winter of 2007-2008, Red Tomato worked hard to communicate the importance of increased prices for growers' economic sustainability. A higher price was successfully negotiated through an agreement to downsize the heirloom tomato package, yet maintain the package retail price (Michael Rozyne, interview, 03/12/08). In the future, communication about sustainable economics will take place through Red Tomato's web presence and direct engagement of fair trade issues in the Northeast's agri-food systems (See cross-case study observations #1 and #11).

Acquiring technical support. Red Tomato received technical support from the IPM Institute of North America, Inc. <www.ipminstitute.org> to develop the standards and certification protocols for the

“Initial evidence indicates that Northeast fruit and vegetable growers offer better labor and pay conditions for farm workers than other areas of the country ... We'd like to see if we can build upon that.”—Michael Rozyne, Director

Eco Apple program. Red Tomato, with information technology professionals, is developing electronic systems that will: 1) reach consumers, while shopping, with videos, slide shows and messages from growers; 2) coordinate internal organizational practices, and 3) effectively reach critical external partners and audiences including farmers, buyers, consumers, funders and the media (Michael Rozyne, interview, 09/23/08).

Future dynamics

Internal organizational issues. Recently completed staffing changes include promoting the deputy director to a co-director; adding traders in growth regions (Pennsylvania and the Southeast); and hiring development staff to focus on individual philanthropists. Red Tomato's new web presence will enhance its capacity to communicate its values, stories and services, and provide the foundation for developing web-based food commerce. The year-long website redesign project was led by Red Tomato's communication consultant and designer, and a web consultant (Michael Rozyne, interview, 03/12/08). Now underway is a strategic engagement of relevant fair trade issues as emerging dimensions

for differentiation. *“Initial evidence indicates that Northeast fruit and vegetable growers offer better labor and pay conditions for farm workers than other areas of the country... We'd like to see if we can build upon that”* (Michael Rozyne, interview, 09/23/08).

Issues with supply chain partners. Over the next several years, Red Tomato will develop a set of tiered relationships with both growers and customers. At the base, a core group of growers and a parallel group of core customers will be full strategic value chain partners. *“There will be mutual business dependency with these partners and they will have a significant say in how Red Tomato operates”* (Michael Rozyne, interview, 03/12/08). Core growers and customers will possess the attributes delineated in Appendix D. Red Tomato is currently exploring ways to structure these deeper business relationships (Michael Rozyne, interview, 09/23/08).

Over the next several years, Red Tomato will seek to initiate trade and develop strategic partnerships with supermarket chains in the Northeast that were previously too large for logistical compatibility. Increased trading with food service companies is more problematic for Red Tomato (Michael Rozyne, interview, 03/12/08). Relationships with distribution and trucking partners are not in need of change in the Northeast, although new distribution partnerships will need to be developed in Pennsylvania, New York and New Jersey (See cross-case study observation #11).

Economics and efficiencies. Red Tomato will gain efficiencies in its business and logistical systems by focusing on the following supply chain points (ranked for gain potential): 1) its traders' knowledge and skill sets; 2) improvements in information technology and integrated systems across the organization; 3) growers' competencies; and 4) distribution and trucking. Red Tomato is addressing growers' concerns about the cost of food safety, or GAP, compliance by finding efficient, cost-effective ways to meet GAP requirements (Michael Rozyne, interview, 03/12/08).

Strategies for increasing markets and growth of Red Tomato. While developing strategic trading relationships with large supermarket chains, Red Tomato plans to expand geographically, with a focus

on states in the southern Northeast (Pennsylvania, New York and New Jersey). It is also expanding into the Southeast (Georgia) in connection with the watermelon project involving African-American farmers and the Federation of Southern Cooperatives. Red Tomato is exploring the establishment of *year-round, or close-to-year-round, value chains* in the Northeast for fruits and vegetables that will involve collaboration with strategic partners in other regions of the country for off-season supplies (Michael Rozyne, interview, 09/23/09). Red Tomato cannot maintain the nearly 500 percent annual growth rate it has experienced over the past five years, and would prefer to settle into a more moderate growth rate (Michael Rozyne, interview, 03/12/08).

A mature Red Tomato ... What does Red Tomato want to look like when it grows up?

Red Tomato staff members are just beginning to engage issues of organizational maturity, recognizing that a key balance will need to be struck between their impact on food systems and quality of work life. Red Tomato hasn't defined a "right size" in terms of its sales volume, staff size, or number of growers. It has determined that quality of work life is an important factor. (Michael Rozyne, interview, 09/23/08) (See cross-case study observation #8).

Positioning value chains in a troubled (and contracting) economy. *"This troubled economy demonstrates well that the marketplace, left to its own devices, is not likely to manage or correct negative externalities that threaten the future of the supply chain itself, or that threaten the public and the earth. Sustainable value chains of the future must account for and manage both kinds of negative externalities: the ones that affect the players within the value chain, such as farmworkers, employees and consumers, and the negative externalities that affect the general public and the earth, such as pollution, soil erosion, lost farmland, poverty and hunger. Maybe the language of 'self-regulation' would speak to people at this moment. If business runs amok, then the rest of us will pay for the bad goods, for the waste, through taxes, lower quality of life, lower quality of products, over the long-term. One way or the other, we're going to pay"* (Michael Rozyne, 10/13/08).

Cross-case study observations

Key Economic Decisions

1. All four enterprises have developed pricing systems based on two principles: 1) supply management and stable pricing, and 2) cost of production-based pricing. Creative work is being done (especially by Shepherd's Grain) to adapt value chain pricing mechanisms to volatile commodity markets.
2. All four enterprises recognize the need to balance supply with market demand through membership numbers. This is relatively easy to do when markets are stable or expanding predictably and much more difficult when demand falls.
3. All four enterprises depend on selling a high percentage of products as identity-maintained, differentiated, higher-value products; and having commodity market options available as back up for unsold product. Both Country Natural Beef and Shepherd's Grain sell their products to processors, yet retain identity, pricing and marketing authority. Their processors can sell their extra inventory into commodity markets, if necessary.
4. It is challenging but necessary for these businesses to communicate the deeper, more complex values that differentiate them from the mainstream. These differences include land stewardship, fair returns to all supply chain participants and maintenance of diverse farm and ranch structures. Shepherd's Grain is a leader in communicating land stewardship values.

Internal Enterprise Decisions

5. The screening of potential new producer-members by existing members in terms of both production capabilities and integrity is an important process for all four enterprises.
6. In all cases, competent managers serve as the pivot persons for the complex and time-sensitive logistical strategies that the supply chains require. As value chain enterprises grow and become more complex, the accounting functions (bookkeeping, invoicing and paying producers) are often the first to be separated off from the logistical bundle.
7. The two more mature cases—Organic Valley and Country Natural Beef—have developed leadership structures that couple farmers and ranchers with food system professionals, and implemented leadership succession strategies that maintain managerial competency and company culture.
8. Several of the case study enterprises are exploring business expansion models based on multi-regional growth and autonomy that build on core company competencies and infrastructure. Organic Valley is a leader in this sort of expansion model.
9. The four case enterprises all display a reluctance to invest in bricks and mortar. While Organic Valley did ultimately choose to build a new headquarters and distribution center, it takes advantage of much infrastructure owned by supply chain partners. The other three enterprises seek to own as little bricks and mortar as possible.
10. All of the enterprises employ farmers and ranchers as business representatives, storytellers and listeners with Country Natural Beef the most successful.

Supply Chain Decisions

11. All four enterprises have moved toward filling an “honest broker/fairtrader” role. The three farmer and rancher-based enterprises earned respect of their supply chain partners and thereby gained this responsibility, while Red Tomato has assumed a fair trader business role. In these roles, the four case enterprises are good examples of business models designed for the protection of a range of collectively important spaces, or “commons.” See Peter Barnes. 2006. *Capitalism 3.0*. San Francisco: Berrett-Koehler Publishers.
12. The enterprises often interact differently with “pioneer/smaller/niche” partners as compared to “follower/larger/mainstream” partners. Shepherd’s Grain is particularly clear regarding these differences. With a few notable exceptions, the value chain partners of the four enterprises are privately owned and not subject to Wall Street pressures.
13. For the three enterprises that deal with processed food products (Country Natural Beef, Organic Valley and Shepherd’s Grain), access to appropriately scaled and regionally located processing facilities has been critical to their success.
14. Value-chain-linked enterprises are particularly susceptible to perceived contradictions within their practices and/or the practices of strategic partners. Examples include Beef Northwest’s labor issues for Country Natural Beef and the family farming flap associated with a large Texas organic dairy farm for Organic Valley.

Appendix A

Values-Based Food Supply Chains: Strategies for Agri-Food Enterprises-of-the-Middle Steve Stevenson (gwstevenson@wisc.edu) and Rich Pirog (rspirog@iastate.edu) www.agofthemiddle.org

Definitions and distinctions

The terms *value* and *values* are used in different ways when referring to food production and food business networks.

1. *Value-added* is used to characterize food products that are converted from a raw state through processing that gives the resulting products an incremental value in the market place. An incremental value is realized from either higher price or expanded market. For example, jams, cheeses and pre-cooked meats are considered value-added products.
2. *Value-added* is also used to characterize food products that gain incremental value in the marketplace through differentiation from similar products based on attributes such as geographical location, environmental stewardship, food safety or functionality. Examples of this type of higher value product include locally grown produce, organic or IPM-grown fruits, antibiotic and/or hormone free meat, or functionally specified hops and baking flours.
3. The words *value* and *values* are also used to characterize the nature of certain business relationships among interacting food business enterprises. In general, this collection of relationships is known as a supply chain (see below). When these relationships are expressly based in an articulated set of values, they are becoming known as *values-based supply chains* or *value chains*.

Some people in the agri-food business community use the term value chain to focus on supply networks that deal with food products given incremental value through processing and/or attribute differentiation (#1 and #2 above). **In the Agriculture of the Middle (AOTM) and Association of Family Farms (AFF) initiatives, the term values-based value chain embraces both product differentiation and the characteristics of the business relationships within a food supply network.**

A *food supply chain* is a network of food-related business enterprises through which products move from production through consumption, including pre-production and post-consumption activities. Typical links in the supply chain are:

inputs → producer → processor → distributor → wholesaler → retailer → consumer

For example, a food supply chain featuring pork products might include feed suppliers or veterinarians, a cooperative of farmers, meat packing and fabrication plants, food distributors, marketers, supermarkets and consumers. Pre-production activities might include university-based research and development, and post-consumption activities could include waste disposal and recycling, while government regulations would likely be engaged throughout the chain. Increasingly, supply chain analyses also are including such pre-production links as agricultural research (e.g., genetics) and post-consumer links such as waste disposal and recycling <www.valuechains.org/valuechain.html>.

Conventional food supply chains exhibit the following key characteristics:

1. Business relationships within the supply chain are often framed in win-lose terms, with resulting levels of inter-organizational mistrust. Relationships are constructed as competitive, even adversarial, whereby each company seeks to buy as cheaply and to sell as expensively as possible.
2. Farmers, ranchers and fishers are treated as interchangeable and exploitable input suppliers, often operating in restricted markets or under short-term contracts where they usually bear the risks.
3. The benefits and profits from the selling of finished food products are unevenly distributed across the supply chain, with food processors and marketers usually receiving a disproportionately higher share.

4. Operations are increasingly located and coordinated on a national and international scale, with food production, processing and marketing sited according to short-term economic gains for those parties who dominate the chain.

Traditional food supply chains can handle both undifferentiated (commodity) and *value-added* food products.

Values-based food supply chains differ from traditional food supply chains in the following important ways:

1. Business relationships among *strategic partners* within value chains are framed in win-win terms, and constructed on collaborative principles that feature high levels of interdependence and inter-organizational trust. All value chain partners have a strategic interest in the performance and well-being of other partners.
2. As producers of differentiated food products, farmers, ranchers and fishers are treated as strategic partners with rights and responsibilities related to value chain information, risk-taking, governance and decision-making.
3. Commitments are made to the welfare of all strategic partners in a value chain, including appropriate profit margins, living wages and business agreements of appropriate duration.
4. Operations can be effectively located and coordinated at local, regional, national and international scales.

These *values-based food value chains* are distinguished from traditional food supply chains by the combination of how they differentiate their products (food quality and functionality, and environmental and social attributes) and how they operate as strategic partnerships (business relationships). **Value chains can be smart from both business and ethical perspectives.**

Mid-tier food value chains are values-based strategic alliances between midsize, independent (often cooperative) food production, processing, distribution and sales enterprises that seek to create and retain more value on the front (farmer/rancher) end of the chain, and effectively operate at regional levels with significant volumes. Significant volumes for these value chains normally range between quantities handled by commodity systems and amounts produced for direct marketing. Regionality will vary with geography, geographic identities, food products and market demographics.

General characteristics of values-based value chains

Value chains have the capacity to combine scale with product differentiation, and cooperation with competition, to achieve collaborative advantages in the marketplace.

Value chains are successfully employed in such higher-volume, complex product industries as cars and trucks, consumer electronics and high-end apparel. The automobile industry provides good examples of cooperation within supply chains and competition between chains.

The Toyota value chain¹ is a good example of distinguishing between strategic (value adding) partners and non-strategic suppliers—makers of engines and transmissions contrasted with makers of belts and hoses:

- a. Successful value chains choose strategic partners that bring distinctive competencies but similar values, visions and goals.

Value chains contrast with two other models for complex business networks:

- a. Competitive bidding (arm's-length) relationships with suppliers; and
- b. Internal ownership of business activities (vertical integration).

¹For more information on Toyota, see:

Dyer, Jeffrey. 2000. *Collaborative Advantage: Winning Through Extended Enterprise Supplier Networks*. New York: Oxford University Press.

Handfield, Robert, and Ernest Nichols Jr. 2002. *Supply Chain Redesign: Transforming Supply Chains into Integrated Value Systems*. Upper Saddle River, NJ: Prentice Hall.

Value chains outperform other complex business models in rapidly changing markets.

Value chains emphasize high levels of performance and inter-organizational trust.

High levels of performance are essential to consistently deliver high quality products and services:

- a. Develop appropriate standards and conduct performance evaluations across the entire value chain;
- b. Employ quality assurance systems (with realistic allowances for surprise events);
- c. Employ continuous improvement systems and target support for underperforming partners in the value chain.

Inter-organizational trust among strategic business partners is pivotal:

- a. Inter-organizational trust is the mutual confidence that business partners will fulfill their agreements and commitments and will not exploit each other's vulnerabilities;
- b. Inter-organizational trust is different from interpersonal trust: the trust will still be in place even if key people leave their respective organizations;
- c. Inter-organizational trust is built upon the fairness, stability and predictability of agreements among strategic partners.

Value chains emphasize shared values and vision, shared information (transparency) and shared decision-making among the strategic partners.

Strategic partners need to share common values and a common vision regarding product quality, partner relationships and customer treatment.

Successful value chains develop effective systems for sharing information and governance:

- a. Shared information (transparency) improves productivity, enables rapid response to market changes and effectively engages discriminating customers. The Dell computer company, which has eliminated retail outlets and middlemen by selling custom-made computer systems directly to customers over the internet, employs a particularly effective information system to communicate with customers and strategic business partners;

- b. Shared governance means all strategic participants benefit from the value chain's business, and all have a say in business developments.

Value chain governance can be framed in familiar terms and mechanisms:

- a. Legislative (setting standards for the chain);
- b. Judicial (monitoring performance in the chain);
- c. Executive (coordinating procedures and flows in the chain).

In successful value chains, all partners experience an authentic sense of fairness and justice:

- a. Distributive justice, where rewards and profits are distributed fairly among all value chain partners;
- b. Procedural justice, where rules of business in the value chain are experienced as fair by all partners.

Value chains make commitments to the welfare of all strategic partners in the chain, including appropriate profit margins, fair wages, and long-term business agreements.

Partners in Japanese value chains express their relationships as "co-existence and co-prosperity:"

- a. Partners have strategic interests in the others' welfare;
- b. Together, they race to the top instead of the bottom.

Strategic partners are rewarded through agreed-upon formulas for adequate profit margins above production and transaction costs, and for adequate returns on investment:

- a. Cost-based pricing in which profit margins of strategic partners are built in from the beginning;
- b. Living wages and supportive workplaces for employees of strategic partners;
- c. Community-supporting business practices, e.g., opportunities for local community investment in value chain businesses

Cost-based pricing requires a high degree of information sharing regarding sensitive economic data:

- a. Sharing economic information can be a challenge for new value chains;
- b. All partners are required to know their true cost structures (production and transaction costs);
- c. Ongoing cost reduction strategies across the chain result in shared benefits.

Successful value chains are built upon long-term strategic partnerships:

- a. Agreements and contracts are for appropriate, extended time periods;
- b. Extended agreements provide confidence for investment in new productive or cost-saving assets;
- c. Legal contracts are often relaxed with development of substantial trust in mature value chains. Strategic relationships are increasingly held together by mutual obligations and opportunities, not legal force.

Additional applications to mid-tier food value chains

Mid-tier food value chains are appropriate for situations in which regionally oriented markets are developing for significant volumes of differentiated, value-adding food products.

1. The combination of significant volume and differentiated food products corresponds to the needs of a growing food service sector of the U.S. economy. Examples include Bon Appétit Management Company <www.bamco.com>, Hot Lips Pizza <www.hotlipspizza.com>, Sysco <www.sysco.com> and Shepherd's Grain <www.shepherdsgrain.com>.
2. Regional supermarket and restaurant chains seeking to distinguish themselves from national chains are also likely candidates for value chain partnerships. Examples include New Seasons Market <www.newseasonsmarket.com>, Burgerville <www.burgerville.com> and Oregon Country Beef <www.oregoncountrybeef.com>.
3. As evidenced by these four case studies, significant opportunities are emerging for farms-, ranches- and fisheries-of-the-middle.

Horizontal collaborations are often required to assemble sufficient volumes of differentiated food products for mid-tier value chains.

1. Multi-lateral collaborations such as co-ops and Limited Liability Corporations (LLCs). Examples include Organic Valley <organicvalley.coop> and Thumb Oilseed Producers <www.thumboilseed.com>.
2. Bi-lateral collaborations such as aggregating firms. Examples include Niman Ranch <www.

nimanranch.com> and Laura's Lean Beef <www.laurasleanbeef.com>.

Appropriate standards and efficient methods of third-party certification are applied throughout the value chain.

1. Standards related to key value chain dimensions (for example, food quality, environmental stewardship, animal welfare, workplace conditions and business ethics);
2. Efficient, computer-based certification systems.

Farmers and ranchers can maintain ownership and control of brand identities on food products throughout the value chain.

1. Development and defense of regionally meaningful identities and brands;
2. National seal to support regional and local brands.

Given historically adversarial business models in traditional U.S. food supply chains, it will likely take time for all strategic partners in new food value chains to become comfortable with alternative business models based on trust and organizational interdependence.

1. Participatory governance structures will be particularly important for food value chains that engage strategic partners of differing size and experience;
2. Non-strategic partners will likely be rare in mid-tier food value chains.

Challenges faced by farmers, ranchers and fishers when constructing mid-tier food value chains

Farmers, ranchers and fishers face several types of challenges in building mid-tier food value chains:

Finding appropriate value-chain partners and developing mechanisms for building trust, transparency and decision-making;

Determining effective strategies for product differentiation, branding and regional identity;

Developing food quality control systems that address weather, seasonality, multiple production

sites and quality-preserving distribution mechanisms;

Determining appropriate strategies for product pricing that are based on understanding true cost structures. Two contrasting strategies are cost-based pricing and paying premiums above commodity market prices;

Building sufficient trust among competing producer groups to form networks of farmers, ranchers and fishers large enough to supply significant and consistent volumes of high-quality, differentiated food products;

Acquiring adequate capitalization and competent management;

Accessing adequate technical, research and development support;

Creating meaningful standards and consistent certification mechanisms across the value chain; and

Developing equal economic power for value chain negotiations.

Appendix B Summary description of Red Tomato for updated website

About RT

RT is a unique organization with one foot in the mission-driven world of non-profit sustainable agriculture, and one foot in the dynamic world of the marketplace. We coordinate a network of family-scale, ecological fruit and vegetable farmers, mostly in New England, and help to brand and market their produce to supermarkets, coops, distributors, and other buyers.

We are a non-profit, based in Massachusetts, with a goal of changing the food system. We believe in market-based change, but also know that small, innovative development needs support before it can take hold and flourish. We believe in fair prices for farmers, transparency in all our dealings, stewardship of the earth, and the power of keeping the farmer's story at the center of our branding and marketing. We also believe that a better food system is the way to a better tomato, and a better world. We're not just dreamers, we're just passionate about good food!

About our name—RT started at a time when it was becoming harder and harder to find a good tomato, unless you grew it yourself. You know what we mean: those tough-skinned, solid, tasteless, tomato-shaped things that are shipped everywhere, all year long, but are a far cry from the juicy, delicious, tender, sun-ripened tomatoes you might pick right in your own garden. We're happy to say that, thanks to the work of many, real tomatoes are making a comeback at farmers' markets, restaurants dedicated to local and seasonal menus, at some retail stores, and in a resurgence of backyard gardening. Our name is an homage to those tomatoes, and a rallying cry to help create a food system that produces more like them!

Red Tomato (RT) is a unique non-profit organization that works in the marketplace. Founded in 1997 to bring fair trade to small produce farmers in the U.S., RT's mission is connecting farmers and consumers through marketing, trade, and education, and through a passionate belief that a family-farm, locally-based, ecological, fair trade food system is the way to a better tomato.

Today RT has trading relationships with over 30 farmers in the Northeastern states. Since 1998 RT has brokered over \$4 million dollars of family farm produce. RT brought over \$1 million (wholesale) of family farm produce into retail stores in 2006. Approximately 13% of the produce sold was grown by watermelon farmers who belong to five farmer co-ops in the Federation of Southern Cooperatives (FSC). RT products reach hundreds of thousands of consumers through distributors, retail grocery chains, and independent grocers in the Northeast and Mid-Atlantic states.

RT works closely with farmers, research scientists, and retail grocers to create supply chains of locally-grown products. We advocate for and strengthen family farms through our marketing and trade programs, educate wholesale produce buyers, consumers, and schoolchildren about the benefits of local and sustainable food, and share practical lessons with other groups working to build a new food system.

3.1.1 Our History

RT was founded in 1996. Michael Rozyne, one of the founders of the fair trade company Equal Exchange, took a sabbatical from the fair trade coffee world to explore what it might look like to apply the lessons and principles of the fair trade movement to support farmers in the northeastern US.

Local food had yet to grab the attention of consumers, retailers, food writers or policy makers, but it was clear that small and medium sized farmers were losing their ability to compete in an increasingly consolidated, global marketplace. At the same time, fresh produce available to consumers had lost much of its flavor, seasonality, and even nutritional value thanks to standardization and long-distance transport and storage. RT was born out of a search for a way to connect farmers with consumers through good produce.

For the early years, RT functioned as a small warehouse and distribution operation, in addition to marketing, selling and helping to develop new products. It eventually became clear that a conventional distribution model at that scale could no longer compete economically. In a risky and carefully considered shift, RT closed its warehouse, cancelled its truck lease, and began to concentrate on managing logistics through a network of farmers, independent truckers, and wholesale partners. Coupled with renewed focus on marketing, branding, and packaging to help give the farms and products more visibility with consumers, this strategy has been successful.

In 2007, RT marketed produce for a network of 35+ farms, including 12 apple orchards as part of our Eco Apple program. Over 200 retail stores in New England, New York, and the mid-Atlantic carried RT produce, as well as a few select markets outside the region. Our marketing and education efforts now reach thousands of consumers, and our sales of produce have grown steadily each year.

In 2006, we launched a unique new partnership with AgroFair and Equal Exchange, to bring fair trade bananas to the US: Oke USA.

Appendix C RT Mission, Vision, and Values: A Working Version for '06

Mission:

RT's mission is connecting farmers and consumers through marketing, trade, and teaching, and through a passionate belief that a family-farm, locally-based, ecological, fair trade food system is the way to a *better tomato*.

Vision:

RT's vision is to be a bold, energetic, collaborative partner in creating a truly sustainable food system, one in which:

- **Local food is abundant.** Food has a face and a place. People know where their food comes from, and the regional and local farm/food economy, everywhere, is an important source of nourishment, food security, and human connection to nature and the land.
- **Quality rules.** Food is fresh, delicious, nutritious, abundant and diverse. The freshness of food, its flavor, diversity, safety, and healthfulness, together with profitability, are the key determinants of what farmers grow, food companies manufacture, and people eat.
- **Family farms thrive.** Small- and medium-sized family farms are a vital part of communities in every region.
- **Earth is in harmony.** Constant innovation and growth in the scope and practice of ecological farming—caring for the land, air, water and ecosystem—is the basis for all farming and food practices.
- **Health flourishes.** All people have access to high quality, nutritious foods.
- **Fair trade is fundamental:** Farmers and farmworkers are treated with dignity and respect, that comes from fair pay, safe working conditions, and honest, transparent communication.

Values:

Our work is an expression of:

Innovation, risk taking and 'learning by doing'

Passionate commitment to our vision.

Respect, honesty and fairness in all of our relationships.

Joy, cooperation and balance in our work life.

Inspiration both by and for our partners as we work to make our common vision real in the world.

Appendix D Eligibility attributes for future Red Tomato grower partners

Eligibility—RT and the Eco Apple Learning Community seek grower/partners with these attributes:

a. Wholesale experience and focus

Wholesaling must be a high priority for this farm and farmer—today, tomorrow, and, preferably, in the recent past, so there is experience on hand. *Priority* is both a function of the marketing mix (does wholesaling contribute 40% or more of farm income?) and a function of mindset.

b. Infrastructure to support wholesaling

- for removing field heat immediately upon harvest
- for maintaining cold or appropriate temperature after field heat is removed
- for cleaning, grading, packing, packaging and storage
- safe, dry storage for supplies
- refrigerated transportation

c. Personal style and habits that make for a strong (and easy) relationship

- good communicator: clear, direct, and immediate when giving feedback; not defensive when taking feedback
- accessible, almost always when product is moving, by phone and/or e-mail
- transparent, openly sharing information
- flexible and adaptive in problem-solving and planning
- a cooperator in the aggregation and fulfillment of group orders (involves use of a farm's infrastructure and staff)
- computerized record-keeping of pest management practices

d. Dependable

- at quality control and delivery of consistent high-quality product
- in fulfilling orders on-time at the volume committed
- in forecasting product availability
- in communicating problems or changes immediately

e. Commitment to continuous improvement

- ***In practice***—this is not a verbal commitment—as reflected in all aspects of operations from quality control to new product development to order fulfillment, etc.
- short-term events are seen in a medium- and long-term context.

Appendix E
Analytical outlines for four of Red Tomato
value chain partners

Outlines for Whole Foods, Trader Joe's, Ward's Berry Farm, and Clark Brothers' Orchards are available upon request from the author: gwsteven@wisc.edu.

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Organizations involved with this report:

The National Task Force on Renewing an Agriculture of the Middle is concerned with a disappearing sector of mid-scale farms/ranches and related agrifood enterprises that are unable to successfully market bulk commodities or sell food directly to consumers. See www.agofthemiddle.org or contact convening chair Fred Kirschenmann, Iowa State University, 515-294-5588, leopold1@iastate.edu; or administrative chair Steve Stevenson, University of Wisconsin-Madison, 608-262-5202, gwsteven@wisc.edu. The task force has three areas of emphasis:

New business and marketing strategies will seek to create business networks or “value chains” that link farms/ranches-of-the-middle with food system partners to meet a growing demand for differentiated, high-quality food products. Currently operating as the Association of Family Farms.

Public policy changes include those that can be secured in the relatively short term that directly affect middle market development, and more systemic policy changes over an extended period of time that will fully equalize economic environments for farms/ranches-of-the-middle.

Research about and education support from scientists associated with the initiative and land-grant university community on the business and policy strategies, at both the regional and national levels.

The Center for Integrated Agricultural Systems (CIAS) is a research center for sustainable agriculture in the College of Agricultural and Life Sciences, University of Wisconsin-Madison. CIAS fosters multi-disciplinary inquiry and supports a range of research, curriculum and program development projects. It brings together university faculty, farmers, policy makers and others to study relationships between farming practices, farm profitability, the environment and rural vitality. For more information, visit www.cias.wisc.edu or call 608-262-5200.

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