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Consolidation in the North American Organic Food Processing Sector, 1997 to 2007

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Abstract. Significant structural changes have accompanied the phase-in of a national organic standard in the United States over the last decade. The organic processing sector was particularly amenable to change due to its location downstream from production, where concentrations of capital encounter fewer biological barriers, and currently benefit from greater economies of scale. Consolidation of this emerging industry in the US and neighboring Canada is characterized visually using information graphics. These graphics provide a broad overview of the current industry structure by depicting the processes of horizontal integration and concentric diversification. Horizontal integration has occurred through acquisitions and strategic alliances, although these transactions are often hidden from consumers through ‘stealth’ ownership. Concentric diversification has occurred through the introduction of organic versions of mainstream brands, and the introduction of private label organics. These trends are expected to continue, and strongly support the conventionalization thesis as it applies to off-farm segments of the organic food industry.

Introduction

The North American organic food industry has undergone tremendous structural changes in the past decade. A US national organic standard was implemented by 2002, replacing the previous ‘patchwork’ of differing state and regional standards (Fetter and Caswell, 2002). Numerous analysts, including critical social scientists and organic movement participants predicted that the change would facilitate increasing involvement by larger capitalist firms in this rapidly growing and high profit margin industry (Buck et al., 1997; Benbrook, 1998; Imhoff, 1998; Ikerd, 1999; Allen and Kovach, 2000; DeLind, 2000). This trend was expected to occur at every stage of the organic food system as a strategy for capital accumulation, despite its origins as a form of resistance to the industrial model of food production (Guthman 2004a).

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Buck et al.'s (1997) study of the organic vegetable commodity chain of Northern California in the mid-1990s characterized the processes of appropriationism and substitutionism (Goodman et al., 1987) that they observed in this sector as 'conventionalization'. Buck et al. emphasized that the penetration of agribusiness into what was once an alternative food system was most advanced in 'near- and off-farm activities' (1997, p. 4), such as processing, distribution and retailing. They also described the theoretical basis of the barriers to on-farm conventionalization, such as the extensive amounts of land and time required, and the high level of risk due to biological factors like pests and weather (Kautsky, 1899; Mann and Dickinson, 1978; Watts and Goodman, 1997). Buck et al. (1997) noted that the practices codified in organic standards, such as the prohibition of synthetic pesticides and fertilizers, presented perhaps even greater barriers to concentrations of capital at the farming stage when compared to conventional agriculture. They concluded that 'the processing, distribution and marketing links in the (organic) commodity chain' (1997, p. 17) were likely to be more susceptible to conventionalization in the future.

Recent studies of the organic industry have tended to examine changes in farm-level production and consumer motivations, rather than intermediate stages of the commodity chain. A growing number of researchers have empirically tested the validity of the conventionalization thesis inside the farmgate, such as the predicted bifurcation of organic farming into industrial and artisan production, particularly for regions outside of the state of California (for reviews, see Lockie et al. 2006; Constance et al., 2008; Tomlinson, 2008). This debate has centered on just one part of the overall thesis, however (Guthman, 2004b).

This article instead examines changes in an off-farm segment of the organic food system: the organic processing sector in the US and Canada. I focus on the consolidation that has occurred, identifying the firms utilizing the strategies of horizontal integration (through mergers, acquisitions, and strategic alliances) and/or concentric diversification (through introductions of organic versions of mass-market brands and retailer/distributor private labels) to concentrate power and control in this sector. Organic processing is interesting, because it involves a much greater number of firms than distribution and retailing – by the time the US Department of Agriculture (USDA) standards were implemented, organic distribution was dominated by United Natural Foods and Tree of Life, and organic retailing was dominated by Whole Foods and Wild Oats. North America was selected as the region of interest due to US government involvement in creating a uniform standard, in contrast to the European Union where most countries allow non-governmental certification organizations to offer their own interpretation of EU minimum standards (Dimitri and Oberholtzer, 2005).

This analysis also highlights the further erosion of two potential barriers to capital accumulation in off-farm segments of the organic industry that were identified by Buck et al. (1997, p. 15): 1) its 'social movement' character, and 2) consumer demand for alternatives to mainstream agribusiness practices. A national organic standard in the US established a lowest common denominator set of requirements and eliminated competition for the most stringent level of certification. Previously, the most credible certifiers were those with the strongest social movement orientations, but this distinction, as well other forms of grass-roots engagement with the meaning of 'organic' have been greatly reduced with USDA control of the word itself (DeLind, 2000; Guthman, 2004a; Boström and Klintman, 2006). Meanwhile, consumer demands for alternatives have been blunted because the process of conventionaliza-

tion is well-hidden from them through practices such as 'stealth' mergers and acquisitions. In addition, some acquiring companies have co-opted the discourses of their organic brands as alternatives to agribusiness as usual and use them in their marketing practices to increase sales of non-organic products. This gives consumers the illusion that their alternative options are increasing in the marketplace, even as they are narrowing with respect to many ideals.

Methods

I examine consolidation in the North American organic industry with information graphics, to represent the process visually. Such graphics can be used to assist cognition, particularly to identify patterns. They make use of pre-attentive processing, the capacity of our sense of vision to take in large amounts of information even before paying conscious attention. For example, it is far easier to note differences when they reflect color, size, position or other pre-attentive cues than when they are simply numeric, as in a text-based table (Tidwell, 2005). Information graphics are particularly useful for analyzing structural change in industries as they help researchers (and the public) to quickly comprehend their broad scope, as well as the specific events that contribute to these trends.

The graphics I use to depict consolidation in the North American organic processing industry focus on the two main strategies identified in this sector: 1) horizontal integration, through mergers, acquisitions and strategic alliances; and 2) concentric diversification, or introducing certified organic versions of related, existing products. Both can be used by firms to consolidate their control into relatively stable oligopolies (Heffernan, 2000). I devote less attention to two other strategies firms use to dominate industries: 1) off-farm vertical integration, which is currently less common in the organic processing sector; and 2) globalization, which extends beyond my regional, North American focus and has been recently been examined in this industry by others (Raynolds, 2004; Murphy and Trauger, 2006).

The decade 1997 to 2007 was selected as the study period, beginning with the year that the US Department of Agriculture published the first draft of a national standard. Although Canada introduced its own national standard later (phased-in from December 2006 to December 2008), it was included due to its proximity to the US and its structural similarities. Canada is an important export market for many US-based organic food processors and because several Canadian processors have become dominant suppliers to the US market. Analysis was limited to organic foods that undergo at least minimal processing from a raw form – excluding most fresh fruits and vegetables, but including bagged salads and carrots, dairy products and meat, as well as frozen and shelf-stable foods and beverages. These products are better suited for off-farm strategies of accumulation because of greater durability (Friedmann, 1992), more advantageous economies of scale, and often more substantial marketing efforts (e.g. brands) than untransformed foods (Buck et al., 1997).

Unless noted, data are from company press releases, annual reports and web sites, as well as the business press and trade journals. They were verified by a corroborating source if not announced directly by the companies involved. The data were obtained primarily by examining annual reports and press releases from the largest food processors in North America, or by extensive keyword searches in search engines (e.g. 'organic acquisition', 'organic merger'). This information is therefore

comprehensive with respect to the largest firms, but is likely to exclude changes involving smaller, regional organic food processors.

Horizontal Integration

While horizontal integration has occurred throughout the processing industry, I divide the analysis of these changes into two parts. The first focuses on acquisitions and strategic alliances involving the 30 largest food processors in North America, while the second focuses on other significant transactions.

Horizontal Integration by the Top 30 Food Processors

Figure 1 shows acquisitions or other relationships among the 30 largest firms in the North American food processing industry by sales, with their rank determined by Food Processing Magazine (Fusaro, 2007) in parentheses. One-third of the top 30 firms (represented as larger circles) have acquired organic brands (represented as smaller ovals) in the past decade. In addition, Heinz purchased a 19.5% stake in Hain (now Hain Celestial) in 1999, but liquidated this investment in December 2005. Hain used the capital acquired from its initial public offering in 1997 to grow to its current size as the 85th largest food processor, in part through dozens of mergers and acquisitions involving organic and natural brands. Cargill has also become involved in the industry through strategic alliances with Hain Celestial and French Meadow to incorporate nutritionally enhanced organic ingredients in processed foods. French Meadow, a bread manufacturer, was later acquired by 40th ranked Rich Products Corporation.

Most acquisitions of pioneering organic food processors and their brands occurred between 1997, when the first draft of the US national standard was released, and October 2002, when an 18 month phase-in period was completed. Although the enabling legislation was passed in 1990, the USDA moved very slowly to implement it. Releasing a draft signaled that the agency was finally moving toward harmonizing what had previously been differing state and regional standards, which would have the effect of reducing transaction costs for nationally and internationally distributed organic products (Fetter and Caswell, 2002). It also indicated that the once marginalized organic sector had achieved some measure of legitimacy from the federal government. A USDA accredited label was expected to increase consumer confidence and facilitate continued rapid growth in sales. This was particularly true for processed foods, for which a four-level labeling scheme was developed, based on the percentage of organic ingredients (Batte et al., 2007).¹

Although a few key acquisitions by larger processors had taken place previously (most notably 43rd ranked J.M. Smucker's acquisitions of organic juice brands R.W. Knudsen in 1984, Santa Cruz Organic in 1989, and After the Fall in 1994), the late 1990s saw a greatly increased level of merger and acquisition activity. This coincided with a wave of consolidation in nearly all sectors of the economy, at levels that had not been seen since the early 1900s (Du Boff and Herman, 2001). In the organic processing industry the peak of acquisitions occurred in 1999. That year saw the acquisition of Cascadian Farm and Muir Glen by General Mills for example, for an estimated \$70 million. Cascadian Farm's parent company had acquired Muir Glen the previous year. By this time, it had grown from its origins as a collective farm in

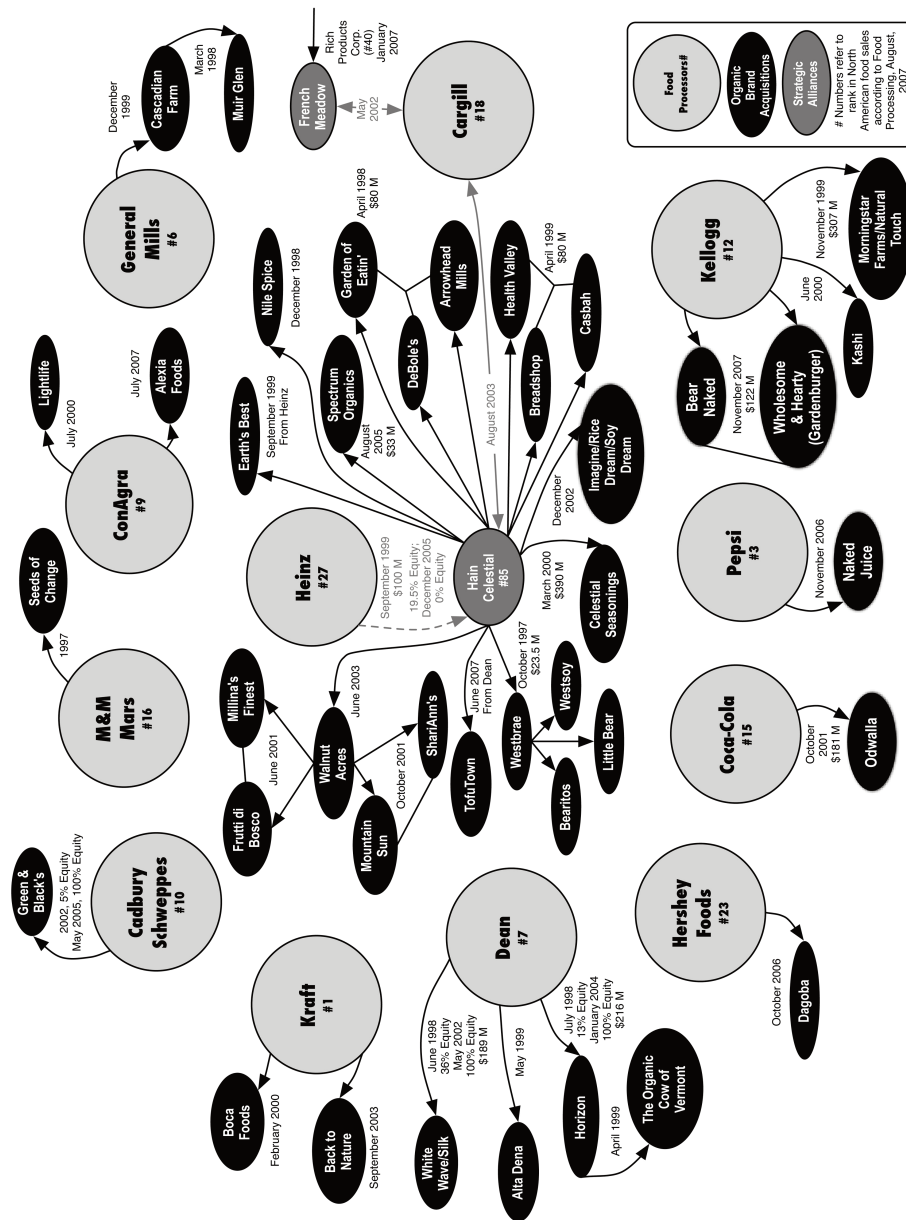


Figure 1. Horizontal integration: top 30 food processors in North America.

the 1970s to an industrial-scale processor with significant capital investment (Pollan, 2001). Other major transactions that year included Heinz's investment of \$100 million in Hain, and Kellogg's purchase Morningstar Farms/Natural Touch, makers of vegetarian meat substitutes (some organic), for \$307 million.

The sale prices for these acquisitions were typically on the order of two times annual sales, which is quite high for the food industry. Rapidly growing premium ice cream maker Ben & Jerry's (though not carrying organic product lines at the time)

for instance, was acquired by Unilever for less than 1.4 times annual sales (\$326 million) in 2000. The next year, George Southworth, CEO of a cooperative distributor said, 'Current valuations on many larger natural/organic entities are too high to make sense in the public financial markets but may make sense to large conventional food companies with large cash flows seeking entrance into a high margin industry' (Southworth, 2001). These inflated amounts represented a premium for brand identity, which has become increasingly more valuable than tangible things, such as manufacturing plants, in all sectors of the economy, including food (Lyson and Raymer, 2000; Pritchard, 2000). One reason why many multinational corporations were so willing to enter the industry in this manner was that they did not have the knowledge and/or relationships to jump directly into organic processing on their own. But perhaps the more important reason was the perception that many organic consumers do not trust the integrity of the transnationals' brands. Leading organic food retailer Whole Foods, for example, decided not to carry the Nature's Farm brand of organic chicken introduced by Tyson, as it was too clearly associated with this conventional meat processing giant (Krall, 2003).

Given the apparent skepticism the most committed organic consumers express toward large corporations, it is not surprising that very few of the brands in Figure 1 make their ownership ties apparent on the label. This has been described as 'stealth ownership' (Sligh and Christman, 2003, p. 19). For instance, most General Mills brands have a prominent 'G' logo on their packaging, but Muir Glen and Cascadian Farm products do not. A General Mills executive explained, 'To the organic consumer, the heritage of Cascadian Farms has more equity' (Helliker, 2002, p. B1). Among the acquiring firms in Figure 1, only Hain Celestial identifies corporate parentage in the fine print of its organic brand packaging (this exception is likely due to its origins as a natural/organic company, and despite the fact that it now has annual sales of \$1 billion). Yet, unlike Tyson's Nature's Farm brand, all of these stealth brands continue to be sold by Whole Foods. Another typical feature of organic branding, even among the most massive firms, is to represent pastoral or environmental ideals. Horizon, which has been boycotted by a number of retailers for its nominally organic feed-lot dairy practices, for instance, depicts a smiling cartoon cow in front of the planet Earth on its milk cartons (DuPuis, 2000).

Horizon developed this label (and built operations with 4,000+ cows) before being acquired by Dean Foods for more than \$200 million in 2004. Dean was the winner of the race to consolidate the conventional US dairy industry in recent years, with annual sales that are now more than \$10 billion (Hendrickson et al., 2001; Hendrickson and Heffernan, 2007). They eased into organic operations though, starting with a 13% stake in Horizon in 1998. By the time of the complete takeover, Dean had acquired Alta Dena, and Horizon had acquired The Organic Cow of Vermont, resulting in a claimed share of more than two-thirds of supermarket sales of organic milk. Dean followed a similar strategy with White Wave, which claimed an 85% share of refrigerated soy-based milk-substitute sales in 2003 through its Silk brand (Silverstein, 2007). The dairy giant acquired a 36% stake in this soyfoods company for \$15 million beginning in June 1998, and the remainder for \$189 million in May 2002 (Fro-martz, 2006).

By the end of 2002, when the national standard went into effect, there were few pioneering food processors of sufficient scale left to acquire. The growth of the organic industry encouraged new entrants at smaller scales during that period, however. By 2006, some had grown large enough to attract buyout offers, whether or not

that was their original intent. A more limited, second wave of acquisitions is currently occurring, as the top 30 processors continue to increase their holdings in the organic industry. Examples include Hershey's acquisition of 2001 start-up Dagoba (organic chocolate) in 2006, Kellogg's take-over of 2002 start-up Bear Naked (organic granola) in 2007, and ConAgra's buy-out of 2002 start-up Alexia Foods (organic frozen foods) in 2007. Interestingly, all of these continue the pattern of stealth ownership, with folksy founding stories and no mention of corporate parentage on their respective web sites. Bear Naked's web site even has a detailed time-line of the company history, beginning with the two founders meeting at age 11, then tracing their initial \$7000 self-financing and growth (supplemented by 0% interest credit cards), but ending just before their sale to Kellogg (Bear Naked, 2008).

Horizontal Integration by Other Firms

Figure 2 indicates the strategy of horizontal integration on the part of firms that are not among the top 30 food processors, including acquisitions made by foreign-owned firms (with location of headquarters in parentheses) and venture capitalists (medium-gray larger circles). This chart also gives some indication of globalization in the organic processing sector. For example, the French company Danone, makers of Danon yogurt, acquired a 40% stake in Stonyfield Farm organic yogurt, increasing it to 85% in 2004 (all non-employee owned stock). A Korean firm, Pulmuone, converted a strategic alliance with the brands Wildwood and Midwest Harvest (merged in 2001) to full equity in just over two years, from 2004 to 2006. Oregon Chai is now owned by an Irish company, the Kerry Group. Though not shown in this figure, companies based in the US have also expanded globally. Before being fully acquired by Dean, Horizon developed a strategic alliance with Rachel's Organic, the UK's first certified organic dairy, to introduce new products. At the time, Rachel's Organic was owned by a joint venture between UK-based Dairy Crest and France's Yoplait. Yoplait was itself 50% owned by a private equity firm. The Rachel's brand is now fully-owned by Dean Foods.

Rachel's also illustrates a profitable trend on the part of acquiring companies: extending an 'organic' brand identity into cheaper non-organic products, banking on the fact that consumers are unlikely to continually check the ingredients list. Dean drew some criticism for using this strategy with Rachel's brand yogurt (*Dairy Industries Journal*, 2007), but other examples, such as Dean's Silk, Danone's Stonyfield, and Coca-Cola's Odwalla, have received much less attention. Odwalla is perhaps the most egregious case. Their 'Odwalla Organics' brand has disappeared from store shelves, and they are now estimated to use less than 5% organic ingredients for the entire line (Nutrition Business Journal, 2006). It should be noted that not all companies in Figures 1 and 2 have reduced their commitment to using organic ingredients, and a few have even increased them. Natural Selection Foods, a partnership formed by the founders of organic brand Earthbound Farm and conventional produce giants to market bagged leafy greens, has recently converted from mixed operations to 100% organic (Fromartz, 2008).

While much of the change in the organic processing sector involves horizontal integration, some firms, such as the Canadian corporation SunOpta, are also engaging in vertical integration. In addition to the brands shown in Figure 2, SunOpta has acquired other firms in the sourcing, processing, packaging and distribution sectors.

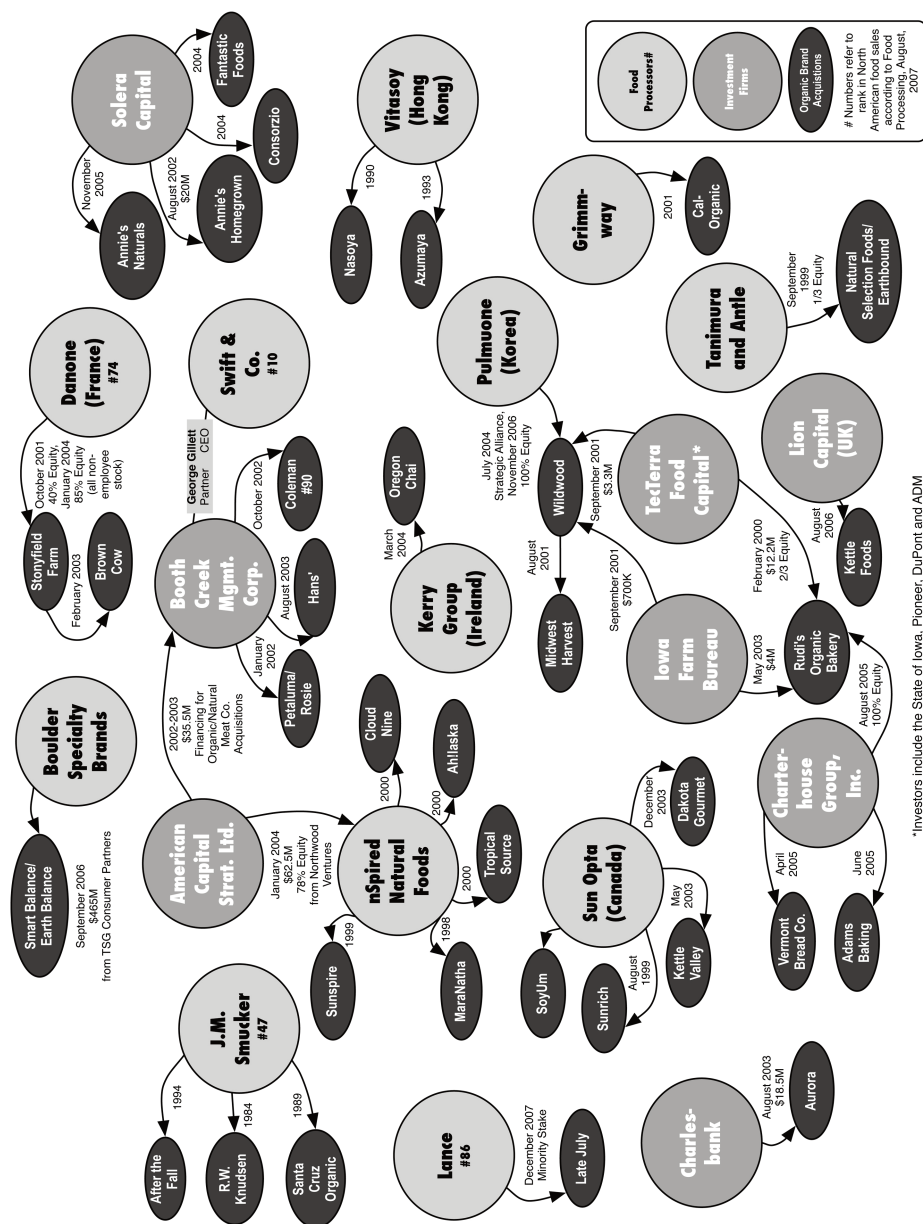


Figure 2. Horizontal integration: other firms.

It recently completed the purchase of Tradin, 'one of the world's leading providers of globally sourced organic food ingredients' (SunOpta, 2008). Tradin is based in the Netherlands, but has operations in China, Ethiopia, US, Germany, Austria, France and Thailand. Another example is Aurora Organic Dairy. Two of the founders of Horizon were involved in starting this company in 2003, and it is vertically integrated through the certified organic production and bottling stages (Cooperative Development Services, 2006).

Aurora was funded by the investment firm Charlesbank Capital Partners, one of the many venture capitalists playing a catalyzing role in the consolidation of the industry. The Charterhouse Group, Inc., for instance, describes the organic industry as 'fragmented'. This investment firm acquired three organic bread companies in the space of five months in 2005 with the intention of 'developing and implementing master consolidation plans' within the organic baked-goods sector, and increasing distribution to the point that they would make an attractive take-over target for a transnational processor (Charterhouse Group, 2005). One of their acquisitions, Rudi's Bakery, was acquired from TecTerra Food Capital, with investors that included the State of Iowa, Pioneer, DuPont and ADM, as well as the Farm Bureau (these same actors also cashed out an investment in soyfoods company Wildwood/Midwest Harvest). Booth Creek Management Corporation is following a similar strategy in bundling organic and natural meat companies; meat is currently one of the smallest, but fastest growing organic categories. A partner in this firm is George Gillett, CEO of 10th ranked Swift & Company. Booth Creek has received funding from American Capital Strategies Limited, which through nSpired Natural Foods has itself been working to bundle organic chocolate and candy companies.

Venture capitalists typically plan to liquidate their investments by either selling them to another company or taking them public within 3–7 years, and seek returns on investment of at least 25–100%, compounded annually (MSI, 2007). Many of the companies eventually acquired by Hain Celestial first received investments from venture capitalists in 1997, including Arrowhead Mills (Shansby Group), Health Valley (Frontenac), and Mountain Sun (Acirca) (Murphy, 1997).

Concentric Diversification

In contrast to some of the assumptions which motivated the last decade's acquisitions discussed above, market research indicates that organic consumers are less brand conscious, aside from viewing the organic label itself as essentially a paramount brand (Howie, 2004). Recognition of this has recently encouraged the more widespread use of concentric diversification as a strategy of accumulation by larger capitalist firms, in addition to, or in place of, horizontal integration. I will first discuss the context of increasing sales and shifting distribution channels in the organic sector, then describe two types of concentric diversification: 1) introductions of organic versions of mass market brands by the top 30 food processors, and 2) introductions of private label organic brands by the largest distributors and retailers.

Increasing Sales and Shifting Distribution Channels

Despite some of the more optimistic projections, growth rates for overall organic foods sales did not increase dramatically with the introduction of a national standard in 2002. Yet, as Figure 3 indicates, already exponential growth rates, estimated to have been 20% annually from 1990 to 1997, have been maintained. Data from the Organic Trade Association indicates organic food sales increased an average of 18.6% annually from 1998 to 2006, while the rest of the food industry grew at a rate of less than 4% annually during this period (OTA, 2007). In 1998, organic foods totaled less than 1% of all US food sales (\$4.3 billion), but by 2006 this had increased to 2.8% (\$16.7 billion). While growth has occurred in all three major channels, the proportion of

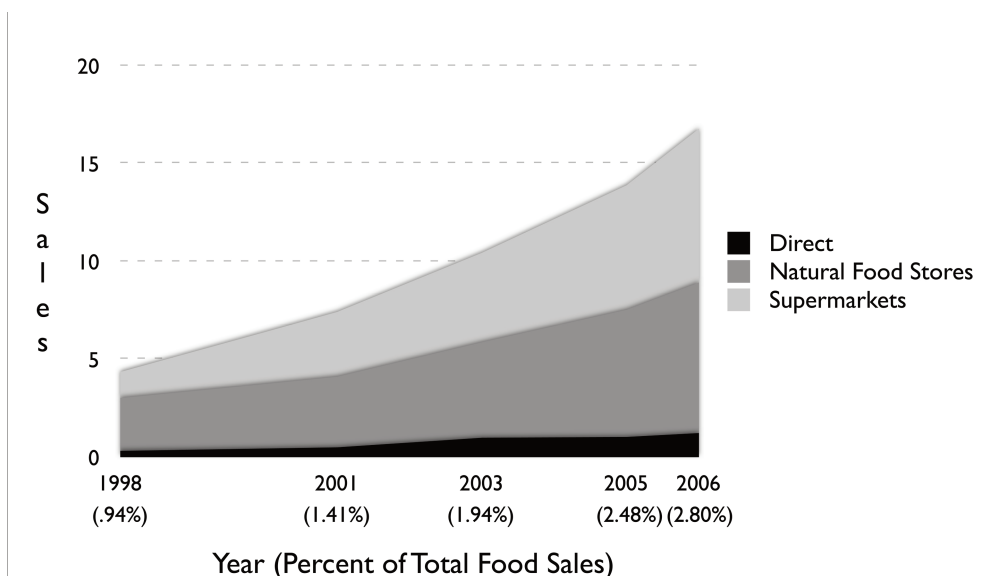


Figure 3. US organic food sales 1998–2006 (in \$ billion).

Source: Organic Trade Association (2004, 2006, 2007).

supermarket sales has increased relative to natural food stores and direct sales, with direct sales showing the slowest rates of growth. That is not to say that the growth in direct sales is insignificant – the number of farmers’ markets in the US grew from 1,755 in 1994 to 4,385 in 2006, and one third of their vendors sell organic foods (USDA, 2007), while community supported agriculture (CSA) farms, primarily organic, increased from 0 in 1984 to approximately 2,000 in 2007 (LocalHarvest, 2007). Farmers’ markets and CSAs comprise less than 5% of organic food sales, however, predominantly fresh fruits and vegetables (Packaged Facts, 2000; OTA, 2006). Sales of processed foods are growing more rapidly than fresh fruits and vegetables, increasing from 58% to 61% of total certified organic food sales in the US during the period 2003–2006 (OTA, 2004, 2007).

In Canada, the Organic Agricultural Centre notes organic processed foods have a similar market share, comprising approximately 60% of sales (Kortbech-Oleson, 2004; Macey, 2007). The Canadian market is also experiencing growth rates of approximately 20% for overall organic food sales (Holmes, 2008), which was conservatively estimated to total at least C\$1 billion in 2006 (Macey, 2007).

Introductions of Organic Brands by Top 30 Food Processors

One strategy of concentric diversification in the organic processing industry is the introduction of organic versions of very mainstream brands, such as Nabisco Oreos and Kraft Macaroni & Cheese (see Figure 4). All but two introductions by the top 30 food processors occurred in 2001 or later, the year that the national organic standard began to be phased in. The exceptions were General Mills’s introduction of Gold Medal Organic flour in 1995 followed by Sunrise organic cereal in 1999. Most of these introductions have been even more recent, occurring in 2006 or later. It is not a coin-

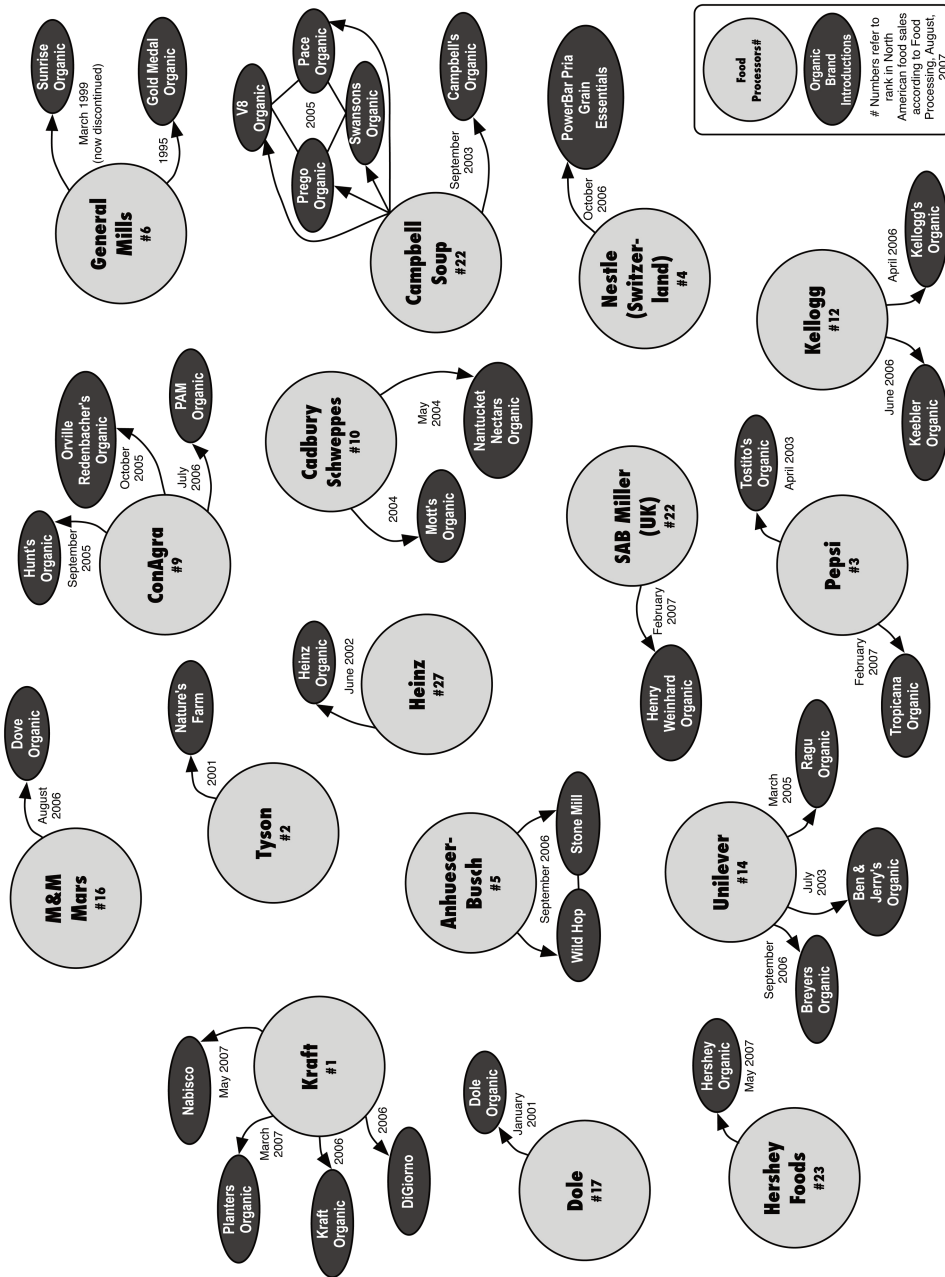


Figure 4. Horizontal expansion: top 30 food processors in North America.

cidence that this was the year Wal-Mart announced its intention to increase the amount of organic products sold with the goal of pricing them at just 10% above their conventional counterparts. Dove Organic Chocolate was introduced exclusively for Wal-Mart by M&M Mars, and Kellogg was encouraged by the retailer to introduce

products such as Organic Rice Krispies and Keebler Organic Crackers (Warner, 2006; Zimmerman, 2006). Paul Norman, an executive at Kellogg, said, 'When a company the size of Wal-Mart is suddenly very interested, it gives us more reason to think the wave has gotten to the size where we can surf it' (Zimmerman, 2006, p. B1).

The strategy of introducing organic versions of mainstream brands has not been uniformly successful. Unilever struggled to recoup the \$20 million it spent on advertising its organic Ragu pasta sauce and scaled back its distribution (Thompson, 2006), and General Mills quietly discontinued Sunrise after spending \$15 million in advertising, in the wake of its later acquisition of Cascadian Farm.

In many cases, these introductions are simply co-packed – they are manufactured by another company that has been contracted to package them with a specified label. Though these agreements are usually confidential, a crisis can help to reveal the extent of this practice. The 2006 incident of *E. coli* O157:H7 contamination of bagged spinach led to a recall of all products manufactured by Natural Selection Foods/Earthbound Farm. It involved more than two dozen brands, including many owned by key 'competitors', although all contaminated products found were packaged under the (conventional) Dole label (Delind and Howard, 2008). The veil behind co-packing in the organic industry was also partially lifted in the founding story of the organic brand Natural Value. A former natural food distributor noticed that four brands of mustard he carried all had the same missing letters on their cases and were clearly produced in the same plant (three of these brands, Hain, Health Valley and Westbrae, were eventually subsumed under Hain Celestial). Natural Value is a transparently virtual food company, operated out of a home to reduce overhead costs and compete as the lowest priced label among identical products. Despite the amazing pseudo-diversity of processed organic products on store shelves, the vast majority of production flows from just a few hundred firms, with a tendency for two or three to dominate the production of almost any given type of food (Southworth, 2001; Hannaford, 2007). Most introductions by the largest food processors occur not surprisingly in well-established organic product categories such as bagged greens, processed tomato products, juice and ice-cream.

Although almost all of the introductions in Figure 4 are clearly associated with processing giants on their labels, some interesting exceptions are the two organic beers marketed by Anheuser-Busch. Anheuser-Busch tried to apply the stealth strategy, labeling its Wild Hop and Stone Mill introductions under a new Green Valley Brewing Co. name. They were widely exposed while test marketing these products through a story in the San Francisco Chronicle (Ness, 2006), and the Green Valley Brewing Co. web site was quickly changed to denote its corporate parentage. These organic brands are bottled under contract with Red Hook, which is 34% owned by Anheuser-Busch. (See supplemental material for an animation of data from Figures 1, 2 and 4, which provides a broad overview of the structural changes in the organic processing sector described to this point.)

Introductions of Private Label Organic Products

Another strategy of horizontal expansion in the organic processing sector is the explosion of private label or own brand organic foods as indicated by the smaller dark-gray shapes in Figure 5. This figure shows those that have been introduced by the top 30 supermarket chains (larger medium-gray shapes), with their rank deter-

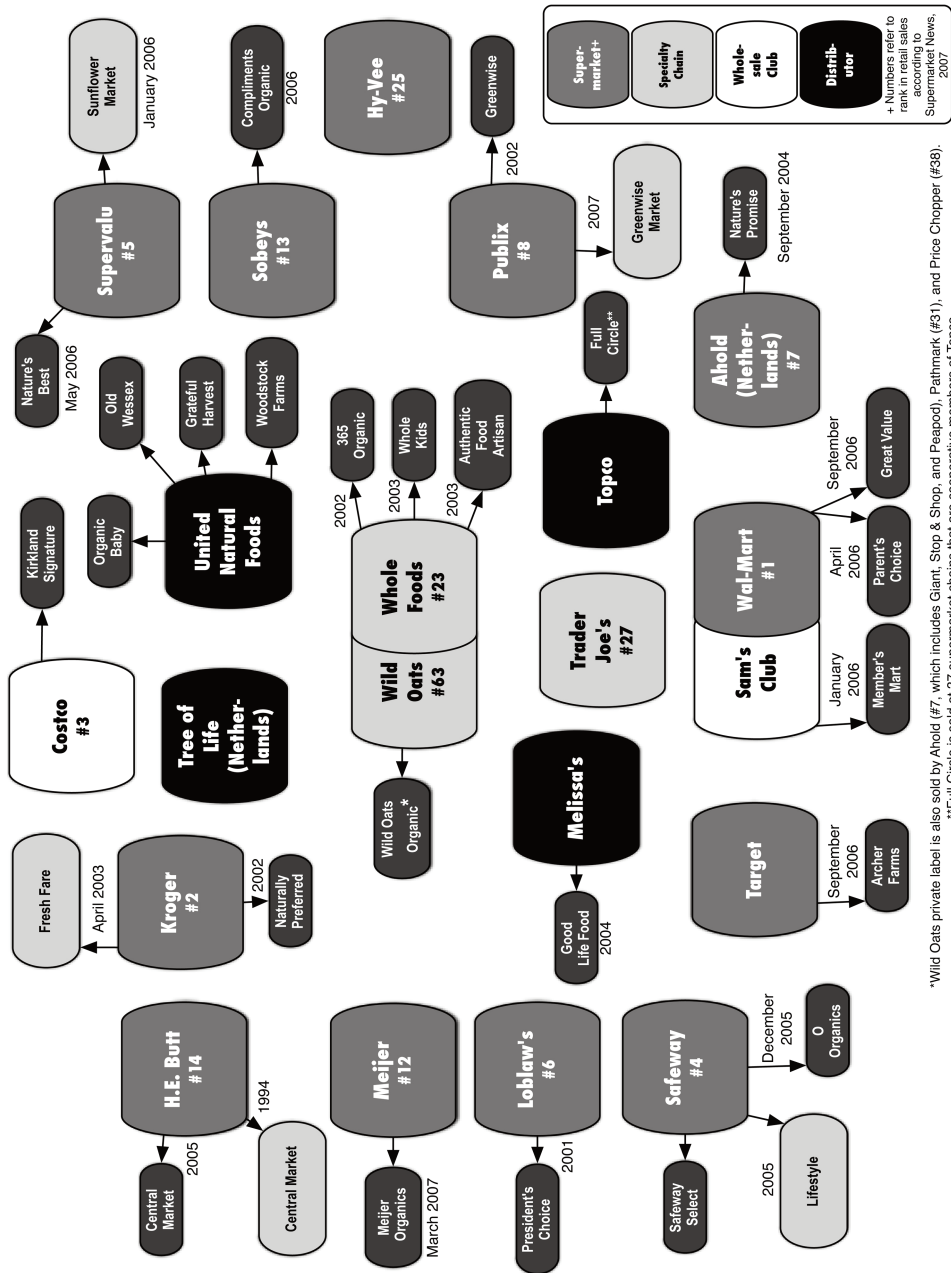


Figure 5. Private label brands.

mined by Supermarket News (2007), as well as specialty retailers (larger light-gray shapes) and distributors (larger black shapes). Private label products are sometimes produced by vertically integrated distributors or retailers, but they are more frequently co-packed by contracted manufacturers. Some of these manufacturers have their own well-known brands, such as Earthbound Farm, but others do not. For

example, Aurora was established specifically to meet the needs of the growing private label market for organic dairy products, and did not sell anything under its own label until 2006. Through the efforts of the Cornucopia Institute, which criticized its relatively enormous scale of operation and feed-lot practices, at least 20 other retailers and distributors were identified as customers (Kastel, 2007).

This is one of many aspects for which organic epitomizes trends for private labels in general, as well as broader structural changes in the food system, as described by Burch and Lawrence (2005). In addition to the rise of private label specialists, others include the dual importance of quality and price, and increasing retailer dominance. Organic is one of many attributes increasingly sought by consumers in the 'turn' towards quality and away from mass-produced foods (Goodman, 2004). Consumer advice columnists emphasize that when 'certified organic is certified organic' it makes financial sense to purchase less expensive private label products (Berlinski, 2007). From mid-2003 to mid-2007, the private label share of organic foods grew from 5% to 14.2%, with sales increasing up to four times faster than branded organic (Lempert, 2007). The success of private label organics is also evidenced in the fact that nearly all of the firms shown in Figure 5 are working to expand their offerings, with Loblaw and Safeway now carrying more than 300 different products.

Safeway, which did not introduce its private label O Organics until December 2005, expects it to achieve sales of more than \$400 million in 2008, which would make it one of the world's leading organic 'brands' (Mitchell, 2008). The company has recently licensed O Organics to other firms, including the distributor Sysco in California and French retailer Carrefour for its outlets in Taiwan. Wild Oats, prior to its recent acquisition by Whole Foods, was the first to license an organic private label – their name brand products were sold by several Ahold subsidiaries, as well as Price Chopper. Even smaller retailers are getting in on the act, with ShopRite, a subsidiary of the 37th largest North American supermarket firm Wakefern, licensing its private label organic and conventional products to the 40 store chain Gristedes in New York City. One organic food label, Full Circle, is owned by a cooperative of 37 retail chains, primarily in non-overlapping regions, which allows them to give consumers in those areas the illusion that it is an exclusive brand.

While some private label lines in Figure 5 are entirely organic, others blur the brand's identity by extending it to natural or 'premium' products. Target, for example, reformulated a number of its Archer Farms products to remove trans fats in 2008, but other products with this label contain synthetic preservatives and sweeteners. Although approximately 100 Archer Farms products are organic, a substantial number fail to meet even the loosest definitions of 'natural,' requiring consumers to closely examine ingredient lists if they want to avoid purchasing conventional products. The halo effect of including some organic products under private labels, with names that evoke pastoral ideals, is therefore another example of the illusory expansion of alternatives for consumers.

Summary and Conclusion

Consolidation in the North American organic processing sector has occurred rapidly since the USDA began its move to a national standard. It is increasingly dominated by concentrations of capital, with 14 of the top 20 food processors in North America either acquiring an organic brand (horizontal integration) or introducing one of their

own (concentric diversification). Although organic was established as an alternative to some aspects of the dominant food system, these changes, as well as distributor/retailer expansion into private labeling, reflect recent trends in the food system as a whole. The predictions of Buck et al., that conventionalization would advance in the off-farm segments of the organic industry are therefore strongly supported.

Trends to this point suggest that horizontal integration and concentric diversification will continue to consolidate the organic processing sector. Efforts to slow or even reverse these trends could be aided by establishing stronger barriers to capitalist penetration. With the current USDA control of the term 'organic', however, regaining social movement influence over the industry appears unlikely. The US government has generally been unresponsive to demands for more stringent organic standards coming from the non-governmental organizations and producers that helped to develop the market. When it appeared that a successful lawsuit by Maine blueberry grower Arthur Harvey in 2005 would prohibit synthetic ingredients in processed organic foods, for example, the interests of the largest processors were quickly protected. Because these firms had become heavily reliant on synthetics in industrial-scale organic food production under the USDA standard, a rider was inserted into Congressional legislation which made the Harvey court decision irrelevant (DuPuis and Gillon, 2009).

Efforts to increase public awareness of these trends, given consumer interest in supporting alternative food systems, may remain a viable option to reassert democratic control of the food system. Exposing stealth ownership and the co-optation of discourses of sustainability to sell non-organic products has the potential to encourage a shift in food purchasing decisions away from large corporations. With this information, consumers and small retailers might seek out products from the limited number of pioneering organic processors that have remained independent, such as Organic Valley, Nature's Path, Amy's Kitchen, Clif Bar, Eden Foods, and Equal Exchange. Surveys also indicate strong public support for another strategy: complementary labels that address criteria not fully embodied in the USDA organic standards, such as local, humane, domestic fair trade, or family farmed (Howard and Allen, 2006, 2008). Alternatively, consumers could begin to reject 'organic' food altogether, given that consolidation and other elements of the conventionalization process are rendering the word increasingly distant from many of its original ideals (Guthman, 2004a).

Note

1. 1) 100% organic, 2) organic (95% or more), 3) made with organic ingredients (70% or more), or 4) specific organic substances identified in the ingredient list. The USDA Organic seal is allowed for the first two categories, but not the last two.

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